

11th MEETING OF THE WHO ACTION NETWORK ON SALT REDUCTION IN THE POPULATION IN THE EUROPEAN REGION (ESAN) MEETING REPORT

Bern, Switzerland, 7-8 May 2019



ABSTRACT

To help facilitate progress towards the globally agreed target to cut salt intakes by 30% by 2025, the WHO Action Network on Salt Reduction in the Population in the European Region (ESAN) was established in 2007. The 11th ESAN meeting took place from 7-8 May 2019 in Bern, Switzerland, hosted by the Federal Food Safety and Veterinary Office of Switzerland and co-organized by the WHO Regional Office for Europe. The meeting welcomed 33 participants, including 20 representatives of 12 Member States, invited speakers and WHO staff.

The meeting heard about progress with national salt reduction strategies from five countries and discussed developments in methodology for monitoring food composition and progress towards targets. Participants also learned about some of the challenges and opportunities associated with sensory thresholds for consumer perception of salt and technical issues around food safety. New tools for data collection and implementation of salt reduction strategies were presented to support Member States in their efforts. In addition, representatives of non-governmental organizations working in salt reduction provided a summary of their work in the field.

It was agreed that ESAN and WHO would pursue further work on modelling of the health impact, in terms of years of life saved, of effective salt reduction strategies and on the development of understanding and approaches to reducing salt intakes from food eaten outside the home.

Address requests about publications of the WHO Regional Office for Europe to:

Publications

WHO Regional Office for Europe

UN City, Marmorvej 51

DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (<http://www.euro.who.int/pubrequest>).

© World Health Organization, 2020.

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

CONTENTS

	<i>Page</i>
Background and Introduction	2
Organisation of the network.....	2
Introductory session.....	2
Opening and welcome of the meeting	2
Meeting objectives.....	3
Session 1: Country updates on salt reduction strategies within the WHO European Region	3
Switzerland	3
Germany.....	5
Hungary.....	6
Ireland	7
Norway.....	8
Session 2: Monitoring food composition and progress against targets	11
Monitoring of food composition and the national challenges in Austria	11
Using food sales and nutrition composition data to monitor industry adherence to reformulation policy	12
WHO dialogue with food and beverage association on salt reduction	13
Session 3: Sensorial and technological challenges and opportunities	15
Sensory thresholds: When do consumer perceive less salt?.....	15
Technical functions of salt in cheese and meat products.....	16
Monitoring salt intake and salt reduction policies: WHO data collection tools	17
Salt reduction at country level: a new toolkit from WHO/Europe	20
Session 4: Presentations of NGOs — update on their current work at EU level and via members in the countries.....	22
Swiss Heart Foundation on behalf of the European Heart Network	22
<i>Federation Romande Des Consommateurs</i> on behalf of the European consumer organization, BEUC	23
World Action on Salt and Health.....	24
Conclusions, next steps, next host country	25
Annex 1.....	27
LIST OF PARTICIPANTS	27

Background and Introduction

The WHO Action Network on Salt Reduction in the Population in the European Region (hereafter referred to as ESAN or ‘the network’) was established in 2007 under the auspices of WHO and with the support of the United Kingdom Food Standards Agency. Since May 2013 Switzerland has chaired ESAN.

The network was established as a response to concern about the increasing salt consumption of the population, in line with WHO Europe’s designation of salt reduction as a priority intervention for tackling noncommunicable diseases (NCDs) in the European population.¹ The main aims and objectives of ESAN are to:

- establish, within the WHO European Region, a network of countries committed to reducing salt intake and building international action on salt reduction;
- provide opportunities for information exchange on the implementation of salt reduction strategies, as well as on related activities and achievements;
- provide opportunities for information exchange on technological progress and developmental processes related to salt reduction; and
- develop guidance for Member States wishing to develop salt reduction strategies and provide technical expertise on the different aspects of a salt reduction strategy, such as setting salt targets, monitoring levels of salt intake and salt in products, and communicating with the public.

Organisation of the network

Since May 2013, the Federal Food Safety and Veterinary Office of Switzerland has chaired the network. As of May 2019, the network consists of 33 of the WHO European Region Member States. Participants include governmental institutions (or those nominated by government) and representatives of WHO and WHO collaborating centres. The network usually meets once a year, at a meeting organized by the ESAN leading country, in close collaboration with the WHO Regional Office for Europe. The network meeting is an important arena for sharing and discussing experiences in salt reduction strategies.

The 11th ESAN meeting took place from 7-8 May 2019 in Bern, Switzerland, hosted by the Federal Food Safety and Veterinary Office of Switzerland and co-organized by the WHO Regional Office for Europe. The meeting welcomed 33 participants, including 20 representatives of 12 Member States, invited speakers and WHO staff.

Introductory session

Opening and welcome of the meeting

On behalf of WHO, João Breda welcomed participants and underlined WHO’s commitment to work with Member States on salt reduction, a topic which remains as important as ever. The vast majority of countries in the European Region are not on target to meet the global NCD target of reducing salt intake by 30% by 2025. Salt reduction remains high on the policy agenda across the Region but progress has stalled. A further push towards the target is urgently needed

¹ WHO Regional Office for Europe. *Action Plan for the implementation of the European Strategy on the Prevention and Control of Noncommunicable Diseases (2012-2016)*.

for European populations to be able to reap the health benefits of salt reduction. Nonetheless, there have been encouraging examples from Member States in recent years. There has been progress, for example, in collecting data on salt intakes using gold standard methodology, monitoring of salt levels in foods, government-led reformulation programmes and modelling of the cost-effectiveness of salt reduction initiatives. There have been particularly encouraging developments in the Eastern part of the Region. Globally, efforts to reduce salt (and trans fats) are being boosted by the Resolve to Save Lives initiative, generating further policy momentum.

He thanked Member States for their ongoing efforts to address the challenge and to exchange and learn through ESAN. He thanked Switzerland for its continued leadership of the network and for hosting the meeting.

Meeting objectives

As chair of the network, Michael Beer, Federal Food Safety and Veterinary Office, Switzerland, also welcomed participants. He outlined the objectives of the meeting, namely:

- to exchange knowledge
- to share experience in salt reduction
- to discuss ways forward for the Network to support Member State salt reduction efforts.

On behalf of the ESAN secretariat, Steffi Schluechter, Federal Food Safety and Veterinary Office, Switzerland, added her welcome to participants. This was followed by a round of participant introductions.

Session 1: Country updates on salt reduction strategies within the WHO European Region

A number of countries gave updates on recent initiatives or progress with salt reduction strategies.

Switzerland

Arnaud Chiolero, head of the Population Health Laboratory of the University of Fribourg, Switzerland, presented an overview of recent work, supported by FSVO, to estimate salt intake and excretion in children in one region of Switzerland.

In a study conducted among more than 5000 children in 2007, Professor Chiolero and colleagues, found that *ci.* 2% of children had hypertension.² Evidence is growing that a life-course perspective is needed to prevent elevated blood pressure starting early in life. One way for the primordial prevention of elevated blood pressure is to act on sodium intakes in early life. A 2017 systematic review examined 85 experimental (14) and observational (71) studies on sodium intake and blood pressure in children involving a total of 58 531 children.³ A meta-analysis was conducted for the 18 studies which were of relatively high quality. This found that for every additional gram of sodium intake per day, systolic blood pressure increased by 0.8

² Chiolero A, Cachat F, Burnier M, Paccaud F, Bovet P. Prevalence of hypertension in schoolchildren based on repeated measurements and association with overweight. *J Hypertens* 2007; 25(11):2209-17.

³ Leyvraz M, Chatelan A, da Costa BR, Taffé P, Paradis G, Bovet P, Bochud M, Chiolero A. Sodium intake and blood pressure in children and adolescents: A systematic review and meta-analysis of experimental and observational studies. *Int J Epidemiol*. 2018, 47(6), 1796-1810.

mm Hg and diastolic blood pressure by 0.7 mm Hg. The association was stronger among children with overweight.

Professor Chiolero reported a study on salt intake and excretion in children in one region of Switzerland.⁴ The cross-sectional study used a convenience sample of 94⁵ children aged between 6 and 16 years without any condition or treatment that would affect sodium consumption or excretion and who were outpatients at regional healthcare providers in the Valais region. The study was funded by the FSVO and took place between September 2016 and February 2018. At enrolment participants were measured (height, weight, blood pressure) and parents completed a general questionnaire on socioeconomic status. At home, participants completed dietary questionnaires (a food diary and a food frequency questionnaire), a 24-hour urine collection and two spot urine collections (one evening, one overnight).

Mean salt excretion was 5.9 g per day, ranging from 0.8 to 16.0 g per day, with a mean salt excretion of 5.9 g per day. The majority of children (62%) had a salt excretion above the recommended maximum salt intake. The four food groups that provided the most salt to the diet were the following: (1) cooked (and salted) pastas, potatoes, and rice (1.4 g salt/day, 23.2% of total salt intake); (2) pastries (1.0 g salt /day, 16.3% of total salt intake); (3) bread (1.0 g salt/day, 16.2% of total salt intake); and (4) cured meats (0.6 g salt/day, 10.3% of total salt intake). Although there is inherent uncertainty in this ranking of top sources of salt, it provides useful pointers on which foods should be prioritized for salt reduction. Using the same data, it was shown that urine spot samples, with selected equations, might provide accurate estimates of the 24-h sodium excretion in children at a population level.⁶ The next steps will be to estimate excretion of potassium, calcium, iodine and caffeine in the urine samples. A larger scale study in schools is also planned, moving towards continuous monitoring of sodium and potassium intake using urine spot samples.

Discussion

Professor Chiolero was congratulated on the study, which is particularly welcome for highlighting high intakes among children and for its demonstration that 24-hour urine collection among children is feasible. There was clarification that the completeness of the urine collections was verified using creatinine excretion estimates and recording of the exact timings of urine collection periods. There were some corrections for collection periods less than 24 hours, and it recognized that this introduces a bias. At the same time, the tension between strict protocols and practicability on a larger scale was recognized.

There was clarification that the sodium from pasta, potatoes and rice would include salt in the processed food *and* discretionary salt added during or after cooking. The relative contributions of processed food and discretionary salt are not clear.

⁴ Rios-Leyvraz M, Bovet P, Bochud M, et al. Estimation of salt intake and excretion in children in one region of Switzerland: a cross-sectional study. *Eur J Nutr.* 2019;58(7):2921–2928.

⁵ 101 children were initially recruited, but 7 dropped out.

⁶ Rios-Leyvraz M, Bovet P, Tabin R, et al. Urine Spot Samples Can Be Used to Estimate 24-Hour Urinary Sodium Excretion in Children. *J Nutr.* 2018;148(12):1946–1953.

Germany

Anke Weissenborn, Federal Ministry of Food and Agriculture, Germany, provided an overview of voluntary commitments to salt reduction within the German National Strategy on reduction and innovation with regard to sugar, fat and salt in processed foods.

The new national strategy was adopted in December 2018, following a process that started in March 2018 and included signing of an in-principle agreement in September 2018. The strategy includes six fields of action: supporting children and young people; reduction of sugar; reduction of fats; reduction of salt; funding of research and innovation; and, increasing nutritional competence. The targets for the strategy are being defined throughout 2019.

Estimated salt intake in Germany ranges from 7 g to more than 10 g per day. In 2016, the estimated average for adult women (aged 18-79) was 8.4 g per day and the average for adult men was 10 g per day. In 2016, the National Institute collected information on food composition of more than 10 000 products. The main sources of salt intakes are, in descending order, bread, meat/meat products, milk/cheese, vegetables, meat dishes, soups/stews, vegetarian dishes and cereals.

The German Nutrition Society (DGE) issued a statement, noting that approximately 70% of women and approximately 80% of men exceed the public health recommendation for salt of 6 g/day, and 39% of women and 50% men have salt intakes above 10 g/day. The DGE urgently recommends that Germany should participate in national and international initiatives to reduce salt intake in the whole population, particularly by reducing the salt content of processed foods.

The process of obtaining commitments from the industry for voluntary targets to reduce salt levels is ongoing. The most challenging area is the bakery trade, especially because German bread culture is recognized by UNESCO as a contributor to intangible cultural heritage. The bakery trade has agreed to reduce the salt peaks (products high above the average), to provide information and to raise awareness among bakers about the importance of reducing salt intake for health, but there has been no clear commitment for other changes.

The frozen food industry has committed to achieving an average maximum of 1.25 g salt / 100 g over the entire range of frozen pizza products by 2025. The intention is to generate more commitments throughout 2019. The first results of product reformulation monitoring will be available in 2020.

Discussion

The government's commitment to reducing salt intakes was commended. There was clarification that the Ministry will have access to official laboratory compositional analyses, to complement industry-provided data, to monitor changes in salt levels. It was pointed out that it would be very useful if industry were to agree to provide both composition and sales data as part of the voluntary agreements. This enables a more holistic picture of the scale of salt reduction.

There was discussion about the issue of discrepancies between declared salt content on labels and amounts determined by laboratory analysis. Experience in the Netherlands found that, on average, the levels on labels were higher than those found in analyses, suggesting that labels may not be updated sufficiently frequently to keep up with product reformulation to reduce salt levels.

To date, the industry has proposed its own targets for the voluntary agreements, following some roundtable discussions with officials. It was pointed out that experience from ESAN members has provided a number of pointers for effective action. These include:

- government-set targets, with gradually reducing targets
- independent monitoring
- involvement of food technologists in the setting of benchmarks.

The effectiveness of these approaches is illustrated by the fact that salt levels in bread and pizzas are much lower in, for example, the UK than in Germany.

It was noted that ESAN would be happy to provide guidance to inform discussions on targets and the setting of benchmarks. It was clarified that the process in Germany is very delicate, having been derailed twice previously, and that it is important not to start with highly ambitious targets if the process is to have any chance of success and long-term impact.

Hungary

Eszter Sarkadi Nagy, National Institute of Pharmacy and Nutrition, presented progress on voluntary and legal measures toward salt reduction in Hungary.

Prevalence of ischaemic heart disease and stroke in Hungary are among the highest in the European Region. Given the high burden of disease attributable to high sodium diets, there have been a number of interventions towards salt reduction in Hungary:

- *Stop Salt! National Salt Reduction Program* (2010) involving salt intake assessment, setting benchmarks for salt reduction, awareness raising campaign, monitoring and evaluation;
- Public Health Product Tax introduced in 2011;
- Setting limits for salt in the Decree on the nutritional regulations of public catering (37/2014);
- Setting lower limits for salt in food standards (Codex Alimentarius Hungaricus): reduction of minimum and maximum salt content for bread (2018: from max. 2.8% to 2.35% dry weight) reduction of maximum salt content for processed meat (5.0% m/m); and
- Initiative of the Hungarian Association of Food Manufacturers to voluntarily reduce salt in certain food products.

Studies conducted between 2009 and 2018 show that the proportion of breads in Hungary which have high salt content (>1.5 g / 100 g) has reduced from 60% to around 25%. Average salt content of bread in Hungary was found to be 1.3 g / 100 g in the 2018 international WASH study. This illustrates that there has been progress, but salt levels in breads in Hungary are still among the highest in Europe.

Surveys of the salt content of meals provided by public caterers in schools, conducted in 2013 and 2017, found that the average salt content over three meals had declined from 8.6 g to 6.7 g, following the introduction of nutrition standards. Nonetheless, the levels still remain too high.

The main sources of salt from processed foods in adult diets are bread/bakery (c. 40%), meat/meat products (c. 24%) and canned/pickled vegetables (14%).

Average adult salt intakes, determined by 3-day dietary records are estimated to have decreased between 1995-8 and 2014, but remain well above the recommended intakes for both men and women. A 2010 study using 24-hour urinary sodium excretion among Hungarian adults estimated that the average daily intake for men was 11.2 g and for women was 9.6 g.

The Public Health Product Tax in Hungary is intended to promote healthier nutrition, encourage product reformulation and generate revenue. It is based on sugar, salt, methylxanthine and alcohol content of products (where they exceed a certain level) and applies to pre-packaged, non-staple foods. As of January 2019, it also applies to salted snacks and condiments (bouillon, stock cubes, powdered soup), products which are consumed by the majority of people in Hungary. Interviews with manufacturers and retailers suggest that the tax has prompted new product development (low-salt products) and reformulation to reduce salt levels.⁷ Although the tax is popularly known as the “chip tax”, most chips/crisps are now below the threshold and are no longer taxed. There has been a gradual increase in public awareness that salty snacks and condiments are subject to the tax, although more than half of the population is still unaware that condiments are taxed. In 2018, the tax on salty condiments raised 8 million euros in tax revenue and the tax on salty snacks raised 15 million euros.

In conclusion, it seems that the impact of salt reduction efforts and interventions can be observed in the salt content of the food supply and the salt intake of the population. In addition, the Public Health Product Tax has raised the level of health literacy of the population and has generated substantial revenue. Monitoring is being established to collect information from food labels and to build a database.

Discussion

There was discussion of whether the salt levels at which the Public Health Product Tax applies are based only on sodium chloride or any kind of sodium-based salt (including sodium phosphates and monosodium glutamate). It was pointed out that it is important that such taxes specify that they are based on sodium-based salts.

Ireland

Clare O’Donovan, Food Safety Authority of Ireland (FSAI), provided an update from Ireland.

The FSAI has been conducting salt monitoring since 2003, focusing periodically on different food groups. Analysis of salt in breads is updated annually and by 2018 there had been a 13% reduction in sodium in white bread, a 27% reduction in wholemeal bread and a 29% reduction in wholegrain bread.

Some components of the “Full Irish” breakfast have also reduced salt levels, including a 27% reduction in sodium in bacon and an 11% reduction in sausages. There have also been reductions in salt levels in cooked ham (15%). The changing market trends — with greater consumption of salami, chorizo etc. — prompted a new market survey, with collection of 100 samples in April 2019 and inclusion of five new categories of meat products.

⁷ Impact assessment of the Public Health Product Tax, 2018 EFOP 1.8.10 –VEKOP-17-2017-00001

In popular breakfast cereals there have been decreases ranging from 38% (multigrain) to 63% (cornflakes) between 2003 and 2015. A survey of all breakfast cereals was conducted in Ireland in 2017, and data on 453 cereals on the Irish market were used to select representative sample of products, which were tested for energy, fat, saturated fat, sugar and salt. This reflects a more holistic approach to reformulation.

In January 2019 new healthy eating guidelines were launched, and these include the recommendation to consume no more than 6 g of salt per day and provide information on sources and alternatives for flavouring food, as well as recommending that people use traffic light front-of-pack labelling to guide purchases.

Ongoing work includes development of *Best Practice Guidelines on the Use of Potassium-Based Salt Substitutes by the Food Industry*, salt monitoring work and a salt excretion study. The three-year study on salt excretion is being conducted by the FSAI and University College Cork, in order to estimate the daily urinary excretion of sodium and potassium in Irish adults. The intention is to do spot urine and 24-hour urinary excretion.

Discussion

There was clarification that the protocol for the urinary excretion study has not yet been finalized, so although the study will target adults it is not clear what exact age range it will cover. There was discussion of the proposal to conduct both spot and 24-hour urine analyses — it was pointed out that if both types of analysis are to be include a much bigger sample is required (for spot).

It was pointed out that it could be interesting to examine what happened to sugar levels in breakfast cereals when the salt levels were reduced. There was clarification that this will be an area of future work.

Norway

Henriette Øien, Norwegian Directorate of Health, provided an update on the current status and next steps after nearly four years of implementing the Salt Partnership in Norway.

The Norwegian Directorate of Health published an Action Plan on salt reduction June 2014. The goals of the action plan are a 15 percent reduction in the salt intake of the population by 2018 and a 30 percent reduction by 2025. (This corresponds to a reduction of salt intake of 1.5 g per day and 3 g, respectively.) The long-term goal is 5 g per day. Salt intake in Norway was estimated to be about 10 g per day for men and somewhat lower for women. The salt action plan includes four focus areas:

- communication
- labelling
- monitoring, and
- a partnership for salt reduction to achieve less salt in processed food and served meals.

Following discussions at a food industry group convened by the Minister of Health in 2014, the Norwegian Directorate of Health and enterprises in food industry, hotel, restaurant and catering industry, trade organizations, research and interest groups signed a cooperation agreement concerning the Salt Partnership in 2015. A partnership for a healthier diet (2016-

2021) was launched in 2016 with more comprehensive aims and a broader collaboration between the food industry and health authorities.

The principal objective of the Salt Partnership is to implement the process of reducing salt in food products and food served in order to reduce the population's salt intake by 15% by 2018 and by 30% by 2025. By May 2019, 85 partners were involved. The Salt Partnership Board is led by the Norwegian Directorate of Health. To ensure involvement and commitment from a broad part of the food industries, there are six working groups (one per food group or category), with the participation of industry, retailers and research institutes. These working groups are run by the food industry and have developed salt reduction targets for more than 100 food groups. These working groups are also important fora for dialogue, exchange of information and sharing of experience.

Both salt intakes and the salt content of foods are monitored. Salt intakes are measured in national dietary studies and urinary sodium analysis in urine. Urine samples — both 24-hour samples and spot urine — were collected from a population and analyzed in Tromsø during 2015-16. Mean sodium excretion was 4.09 ± 1.60 and 2.98 ± 1.09 g per 24 hours in men and women, respectively, corresponding to a calculated salt intake of 10.4 and 7.6 g per day.⁸ The next study will take place in 2021. Data suggest that there has been a dramatic decrease in blood pressure among the Norwegian population.

In order to monitor salt content in processed foods, Norway has established a databank of processed foods, called Tradesolution. The databank is designed by and for the food industry, with manufacturers/ producers entering information about their products, including salt levels. In addition, the Norwegian Directorate of Health has also analyzed the salt content in 200 key products in 2014 and 2018. Preliminary results on meat products based on data from Tradesolution suggest that the average salt content is below or near the salt target in 8 of the 12 categories, while in two categories salt content remains much higher than the target (even if levels are lower than in 2016). When results relative to the volume sold are examined, the greatest decrease has been in minced meat/prepared meat and cold cuts.

An analysis of 200 key products, is being conducted by the Institute of Marine Research on behalf of the Norwegian Directorate of Health to examine the following food categories: bread and cereal products, meat products, fish products, dairy products and edible fats, ready-made meals and sauces.⁹ The same food products (mostly) were analysed in 2014 and 2018.

Evaluation of the Salt Partnership has been conducted by Fafo, an independent social science research foundation on behalf of the Norwegian Directorate of Health. The purpose was to examine the partners' perceptions and experiences of participation in the Salt Partnership. In total, 32 food producers and 19 other partners (retail, restaurant and catering industry, trade organizations, research groups and NGOs) participated. The methodology included two different web surveys.

⁸ Meyer, H.E.; Johansson, L.; Eggen, A.E.; Johansen, H.; Holvik, K. Sodium and Potassium Intake Assessed by Spot and 24-h Urine in the Population-Based Tromsø Study 2015–2016. *Nutrients* **2019**, *11*, 1619.

⁹ Dahl L, Erdal E, Kristofferson ME, Kjellevoid M, Kielland E, Owren Aarum AK, Lande B. Analysis of salt content in selected Norwegian foods 2014 – 2018. (English summary). <https://www.hi.no/hi/nettrappor/rapport-fra-havforskningen-2019-25>

The main results of the survey found that the main actions due to salt reduction have been improvement of the nutritional content and development of new products. Almost all of the partners have used the salt reduction targets in their work. The main challenges have been related to product quality and monitoring. Participants also expressed their needs and wishes in relation to future work. In the future the partners need to increase their knowledge about how to further reduce salt in products. Respondents wanted to keep the organization of the salt partnership, particularly the working groups. They also want to participate in other important fora for information and experience sharing.

The next steps are that the Salt Partnership will be continued between 2019 and 2021. The Directorate of Health will lead the work, aiming towards the goal of 8 g per person day. New salt targets for 2019-21 will be developed by the working groups. A seminar was scheduled for 11 June 2019 to report on the results of the Salt Partnership 2015 – 2018 and for signature of the extended agreement.¹⁰

Discussion

There was discussion of the benchmark-setting process, and clarification that the working groups had set step-wise targets and benchmarks with the aim of achieving a 15% reduction in the diet (from reformulation *in conjunction with* education/behaviour change communication) on the basis of 2010 dietary survey data. There was clarification on the relationship between the targets and the Nordic Keyhole front-of-pack logo. For some food groups, such as bread, the targets are stricter than the Keyhole criteria (which are Nordic-wide criteria). The target setting process was also informed by examination of targets set by other countries, such as, the United Kingdom.

There was clarification that agreement on targets for salt content in different food categories with the industry and groceries' trade bodies had been relatively easy to obtain for salt, but there is much greater resistance to agreeing targets for sugar reduction on category level. This reflects the difficulties that individual companies have in reducing sugar levels within the food system¹¹ and points to the need for a regulatory approach that sets maximum levels of sugar in products or mandatory reformulation, thereby creating a level playing field for companies. Taxation is another approach to drive reformulation.

¹⁰ More information is available from <https://helsedirektoratet.no/english/salt-and-the-salt-partnership>. The report of the Salt Partnership 2015-2018 (in Norwegian) was published in June 2019:

<https://www.helsedirektoratet.no/rapporter/saltpartnerskapet-2015-2018-fremdrift-og-maloppnaelse>

¹¹ For more information on this issue, see the WHO Europe report *Incentives and disincentives for reducing sugar in manufactured foods* (2017), available at <http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/publications/2017/incentives-and-disincentives-for-reducing-sugar-in-manufactured-foods-2017>

Session 2: Monitoring food composition and progress against targets

The second session explored issues around monitoring food composition and progress towards targets.

Monitoring of food composition and the national challenges in Austria

Judith Benedics, Federal Ministry of Labour, Social Affairs, Health and Consumer Protection, presented an outline of the Austrian food composition monitoring system.

As part of the Joint Action of Nutrition and Physical Activity 2015-2017 (JANPA), Austria and Romania conducted a pilot study to implement the OQALI methodology implemented in 2008 to monitor the nutritional information and changes in processed foods available on the French market. The pilot concerned two food sectors — breakfast cereals and soft drinks — and took place between February and April 2016. In Austria, general data and data on nutrient content and nutritional information, along with photographs of the product, were collected on 411 soft drinks and 297 breakfast cereals. The data were collected directly in supermarkets, but one retailer offered to send all the data requested and was able to transfer the data very quickly, demonstrating that retailers do have ready access to product data. The pilot study found some differences in product composition between Austria and France/Romania, including significantly lower salt levels in cornflakes, and also demonstrated that the market can change very rapidly.

As a result of the pilot study, Austria decided to implement a new online tool for monitoring changes in food composition, called Food in the Spotlight in October 2018.¹² The objectives are to:

- support consumers in making informed food choices,
- develop a nutrient monitoring system in Austria, and
- create the foundation for cooperation with food industries regarding reformulation strategies.

The tool was developed by the Austrian Agency for Health and Food Safety (AGES), supported by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection and funded through the Austrian Pharma Framework Contract.

Producers are invited to send product compositional data. The database can then be searched and comparative tables generated to support healthy eating choices. Product information is currently available for the sugar, salt and fat levels in complementary foods, food in squeezable pouches, breakfast cereals, pizza, ketchup, sugo and pesto sauces, cocoa, soup/croutons and soft drinks.

Challenges associated with the project include the considerable human resources required for data collection/input and the need for regular updates, as well as identifying the best way to present data in an easily comprehensible way for consumers.

Discussion

¹² <https://lebensmittellupe.at/index.php?id=1481>

There was clarification that there has not yet been any evaluation of consumer attitudes, in response to the tool. Different sectors of the food industry have reacted differently to the initiative.

The pilot study highlighted some differences between similar products in different countries, and it is important that industry be challenged on these differences. It appears that levels are lower where there is tighter regulation or where strong advocacy groups are present, but companies really need to be pushed to market their “best” version of the product everywhere. It was suggested that Member States should work together to address such issues.

Given the heavy use of human resources to collect data, the intention is to move towards getting companies to send data directly. It was pointed out that European food law now requires countries to provide nutritional information for all the products which are sold online. Retailers are more prepared to collaborate, partly because they are resistant to the presence of researchers taking photographs and collecting data in stores. In the Netherlands, it was noted that data are used from the GS1 database with additional data provided by supermarkets.

Using food sales and nutrition composition data to monitor industry adherence to reformulation policy

Lauren Bandy, University of Oxford, United Kingdom, presented an overview of a new approach to using food sales data and nutrition composition data to monitor reformulation.

There has been an increase in journal papers in the field of public health nutrition which use commercial data. Commercial food sales data are available in several European countries and these are compiled using a variety of methods including household panels, electronic point of sale data, secondary data sources/desk research and loyalty card data. The data collected can include sales data based on value, sales data based on volume of sales, brand and company shares, retail channels and demographics. There are also existing datasets with nutrient composition data, and these use data collection methods such as manual store surveys (information collected by recording information directly from the back of the pack), web-scraping tools (digital bots that crawl through retailer websites and automatically collect and store category and product information) and crowdsourcing (mobile apps used to scan barcodes and images of nutrition labels). Combining food sales data and nutrition composition data, can provide figures on sales-weighted mean sugar or salt contents of types of products (e.g., soft drinks), total volume of sugar/salt sales and a breakdown by category and company. This enables progress on reformulation to be effectively monitored.

There are a number of strengths and weaknesses associated with the different forms of commercial sales data. Household panels have the advantage that, compared to national dietary surveys, there is less under-reporting, while there is a larger sample size, more granular data (time series; company and brand), demographic breakdown and consistent application of methods, thus enabling cross country comparisons. There are still, however, pitfalls which include some misreporting, data at the household rather than individual level, a lack of clarity on recruitment/incentives/drop out, a lack of transparency regarding modelled data, skewed demographics (white, higher income, female), data gaps and restrictions on publication of the data imposed by the company providing the data. In addition, household panel data is expensive.

Web-scraped nutrient composition databases, such as FoodDB, have the advantage of readily available and regularly updated data collection on all products (not just a sample) from multiple retailers. The commercial sources of the data are readily available (retail websites) and the data providers are multinational. The limitations of this approach are that it only covers retailers (not food service), that it requires skills and resources to set it up and that the data are usually not validated and/or there may be missing data.

Combining both types of data — nutrition composition and food sales data — offers promise for being able to monitor what people are buying, not only what products are available. The process of pairing two datasets, however, is labour-intensive and challenging. There are methodological limitations, such as, for example, products being categorized differently between the systems, different company and brand names being used and other errors in the data. Another challenge is that composition data is at the individual product level while sales data may be at the brand level.

Discussion

There was discussion of the difficulties associated with obtaining detailed information from commercial sales/product data. It can be a time-consuming process to obtain information on very specific product categories (e.g., to get detailed information on sugar-sweetened flavoured milks within the dairy category).

There was clarification that the technology behind FoodDB is transferrable, for use in other countries. The artificial intelligence has been developed, and would simply need to be amended to be able to deal with other languages.

WHO dialogue with food and beverage association on salt reduction

Chizuru Nishida, WHO headquarters, Switzerland, gave an update on WHO's dialogue with food trade bodies on actions to achieve sodium/salt reduction to meet the global nutrition targets.

A roundtable on NCDs was co-convened by WHO and Chatham House in June 2018 to look at strengthening the role and contribution of the food and non-alcoholic beverage industry to the prevention and control of NCDs. This kick-started a dialogue with key food industry actors.

In order to support the achievement of the global nutrition target of a 30% relative reduction in mean population intake of salt/sodium by 2025, WHO expects the industry to commit to reformulation of foods to lower sodium concentrations and to provide sodium content labelling information. More specifically, this means adopting standardized targets for sodium levels for food and beverage categories that are top contributors to sodium intake and implement them by 2025 and agreement of a global, common set of targets by 2019. In relation to labelling this means provision of on-pack sodium data, as required by Codex but still not implemented in some regions, and provision of data in store, on packaging or online for food services and restaurant chains. WHO also expects industry to commit to agree to work with an accountability platform comprising WHO and independent evaluators and to agree to independent evaluation and support such an evaluation by providing data.

The following were some issues raised during the specific discussions on sodium:

- Setting standardized benchmark for different food categories is needed;

- The development of category-based targets and setting targets within food categories is important;
- Having consumers at the heart of the discussion is critical — this will also influence timelines for implementation of the required reformulation;
- Out-of-home food consumption contributes significantly to sodium intake, so a whole-industry approach is important;
- For sodium labelling, the industry group said a challenge is the different legislation in different jurisdictions.

A meeting took place in May 2019 between the WHO Director General and the chief executive officers of companies in the International Food and Beverage Alliance (IFBA). At that meeting, WHO indicated that sodium consumption is still too high and excess salt intake is the most important dietary risk factor. It also stated that commitment to reduce sodium contents needs to be global and that it is important to agree on benchmarks for product categories and to ensure that products have the same sodium content in all countries. IFBA members indicated that they had reduced sodium content in the majority of their products and stated their commitment to further reduce sodium and to collaborate with WHO and governments. They agreed to convene a technical workshop to discuss the setting of benchmarks for different food categories.

An independent accountability consortium is being set up, with the involvement of the George Institute, INFORMAS and the Access to Nutrition Foundation. IFBA is interested in cooperating with the accountability consortium but indicated that assessments need to be granular (by category), that industry-wide comprehensive monitoring is needed and that the national dietary context should be considered.

It would be helpful to get input from ESAN Member States relating to experience in setting benchmarks.

Discussion

There was discussion of the benchmarking process, with suggestion that benchmarks should initially be defined by professionals, before being discussed with industry. On the other hand, it can be argued that the technological skills and experience of industry are important — as well as obtaining their ‘buy-in’ to the process — for successful reformulation. The experience of Member States in the European Region with benchmarking will be very useful for the global process. There was clarification that WHO will define the targets, based on WHO guidelines, and industry will then be charged with taking action.

There was also discussion of the broader problem of the heavy dependence on ultra-processed food and drink products in contemporary diets. This is an issue that WHO will be exploring through the development of guidelines on dietary patterns. European experience shows that salt reduction is clearly possible and can be done safely, without any noticeable changes for consumer or industry, through a process of gradual reductions. So, while it is important to acknowledge the complexity of diets, it is important to move ahead with salt reduction in the relatively straightforward way which has been shown to work.

Session 3: Sensorial and technological challenges and opportunities

Sensory thresholds: When do consumers perceive less salt?

Barbara Guggenbühl, Agroscope, Switzerland, provided an overview of sensory aspects of sodium chloride.

There are different types of sensory thresholds:

- *Absolute threshold*: lowest concentration at which a stimulus can be detected;
- *Recognition threshold*: concentration at which the quality of a stimulus can be recognized;
- *Difference threshold (Just noticeable difference, JND)*: concentration at which an increase/decrease in intensity stimulus can be perceived; and
- *Terminal threshold*: concentration beyond which the perceived intensity of a stimulus no longer increases

The sensory threshold of a compound in a food is influenced by a number of factors including the food matrix, concentration in the food matrix (difference threshold), the solubility of the compound in water and oil, the pH of the food, the threshold of the compound in air (only for volatile compounds) and the partition coefficient between the air and the food. The number and functionality of receptors of the sensory modality of interest are also important. The detection thresholds and the recognition thresholds increase with age.

Sodium chloride influences several sensory product characteristics and flavour attributes. In cheese, for example, it is responsible for the salty taste and acts as a flavour enhancer, it interacts with other flavour compounds and influences taste, aroma and trigeminal perception. It is also an effective agent against bitterness and has an influence on aroma release and texture. In addition, it modulates the population of desired and undesired microorganisms and enzymes in cheese. Increasing salt concentration in cheese, therefore, increases the perceived intensity of sweetness and suppresses the intensity of bitterness. In relation to texture, increasing the salt concentration results in a firmer cheese dough and less elasticity.

Salt reduction in cheese has been a topic of exploration since the 1980s. Up to 30% of salt in Swiss cheese, for example, can be replaced by potassium chloride, although high amounts of potassium chloride result in bitterness and labelling is necessary.

For meat products, tests found that partial replacement of sodium chloride in cooked sausages with potassium chloride resulted in significant differences in perceived saltiness, no significant differences in firmness, bitterness and spiciness, but a decrease in overall liking. Sensory evaluation in fermented sausages found that reducing the salt can reduce the perceived intensity of firmness, saltiness, bitterness, spiciness and rancidity. Addition of potassium lactate seems to enhance perceived saltiness, although there are differences between sample batches and between consumers.

In conclusion, use of difference thresholds (just noticeable differences or JNDs) is a potent strategy for silent salt reduction. They are influenced by the food matrix, so a separate determination of JNDs is needed for each product. They also depend on the starting

concentration within the food matrix. Determination of JNDs is time consuming, especially for solid food products, and can be influenced by variability in the product and among test subjects. It appears that up to 30% of salt in cheese can be replaced by potassium chloride. In cooked sausages, an initial reduction of sodium chloride can be achieved without any impact on consumer acceptance and substitution of up to 45% can be implemented without any negative effect on firmness, bitterness and spiciness. In fermented sausages, an initial reduction of 10% in sodium chloride can be achieved without sensory quality loss and is still accepted by consumers. The addition of potassium lactate in high amounts influences the texture of salami and the use of potassium lactate as a flavour enhancer still has to be validated.

Technical functions of salt in cheese and meat products

Walter Bisig, Agroscope, Switzerland, provided an overview of the technological functions of salt in foods, particularly cheese and meat products.

Salt functions as a preservative, by reducing the water activity in foods. This is important for the preservation of meat products and cheese, and for the quality control of cheeses. It also influences texture of foods, the meltability of cheese and the binding of water in meat and cheese. For bread, salt influences the processability by increasing the dough stability and strengthening the gluten.

Cheese and meat products are important contributors of salt to the Swiss diet (7.5% and 14% of dietary salt, respectively). In Switzerland, the vast majority of cheeses are raw milk cheeses. Salt, therefore, plays an important role in reducing water activity and limiting the growth of pathogenic bacteria. It contributes to the prevention of undesired propionic acid fermentations and inhibits butyric acid bacteria spores. Salt also has a role to play in cheese ripening and influences texture, meltability and hydration.

There are a number of factors that influence the optimal salt concentration in cheese, reflecting the huge diversity of cheese varieties. The desired effect of salt determines the optimal content, and these will vary depending on the variety of cheese. Blue cheeses, for example, require increased salt content to inhibit *Geotrichum candidum*.

In summary, salt contributes as a factor to the diversity of cheeses and is a factor in the ensuring the safety of cheese. It contributes to prevent the growth of spoilage bacteria and salt content also modulates cheese ripening and flavour development. In Good Manufacturing Practice it is important to optimize and better control salt concentration in cheese. Most cheeses are labelled with their salt content to enable consumer choice.

In meat products, salt has a safety role (it reduces the water activity), as well as binding water and increasing the firmness of products. For cooked sausages, preservation is primarily by scalding and chilled storage, so salt reduction is possible from a food safety perspective. From a sensory perspective, a 15% reduction is possible (from 19 g/kg) and is still accepted. Raw sausages require water activity of ≤ 0.910 for food safety, but a 10% salt reduction is possible (from 40 g/kg) and is accepted. Raw cured products are preserved by salt, drying or smoking. A 20% reduction in salt in raw, ready-to-eat bacon leads to increased fat oxidation and a slightly rubbery texture. For cooked cured products, there is limited preservation by salt, nitrate and cooking, resulting in a shorter shelf-life.

In conclusion, salt is important for food safety in many meat products and contributes to food safety in cheese. This is particularly important in the natural, raw milk and additive-free cheese produced in Switzerland. Many factors influence salt uptake during cheese brining, resulting in a challenge for standardizing the salt content in cheese. For meat products the salt content varies depending on the drying stage. There are, therefore, limited possibilities to reduce salt in cheese and meat products.

Discussion

There was discussion of the health implications of salt replacement with potassium chloride. In Israel, for example, public health advice does not encourage replacement of sodium chloride with potassium chloride. It is known that increased use of potassium chloride could be harmful to some specific groups with metabolic conditions, but the implications of wider use are not well understood. It was suggested that it is unlikely that moderate substitution with potassium chloride would present a problem. National policies, however, should promote a decrease in levels of salt and saltiness, to encourage changes in the population's taste preferences rather than focusing on substitution.

It was clarified that potassium lactate had been used in the tests because it is perceived to be more natural than potassium chloride.

There was also clarification that the relatively low levels of salt in emmental cheese are due to the texture of the cheese — it needs to be elastic to create the holes for which this type of cheese is known. It is clear that reducing both the salt and the fat levels in cheese simultaneously presents the biggest challenge for product flavour and consumer acceptability.

Barbara Guggenbühl organised a cheese tasting sensory test, in which participants were asked to rate certain attributes (firm, salty, aroma intensity) of cheeses with different lengths of brining (or no brine). The results suggested a clear association between the length of brining and each of these attributes.

Monitoring salt intake and salt reduction policies: WHO data collection tools

Kremlin Wickramasinghe, WHO European Office for Prevention and Control of Noncommunicable Diseases, presented some data collection tools for ESAN members' use in monitoring salt intakes and salt reduction policies.

It is important that countries measure progress towards the globally-agreed salt reduction goal and that they are able to evaluate the types of policies that are in place.

To recap, the development of a comprehensive salt reformulation strategy is a WHO “Best Buy” for prevention on NCDs. This includes setting of category-specific targets, implementing a monitoring framework to hold food manufacturers to account, ensuring supportive environments in public institutions and implementation of behaviour change communication and mass media campaigns.

In order to define appropriate programmes and to measure progress, it is important that countries have data. For example, it is crucial to understand the contributors to the burden of unhealthy diet and the particular food environment in each country. However, many countries

do not have good data on the nutritional composition of foods, which makes it difficult to identify the main dietary sources of nutrients/components of interest.

The FEEDcities project aims to characterize the food environment of urban cities. More specifically, the objectives are to:

- describe characteristics of street food and takeaway food vending sites;
- characterize food offered at selected vending sites; and
- assess the nutritional composition of ready-to-eat foods (other than fruits) sold in street and takeaway food vending sites – specifically with respect to their sodium, potassium and trans fatty acid content.

FEEDcities studies have been conducted in Turkmenistan, Bosnia Herzegovina, Kyrgyzstan, Tajikistan, Kazakhstan and Moldova, and there are upcoming studies in Turkey, Russia and Uzbekistan. Results to date have revealed many foods with salt levels above the levels that are typically used for “high in salt” warning labels. Some foods are even at or above the recommended daily sodium intake for one serving. Similarly, the studies reveal foods with much higher than recommended levels of trans fats. This methodology provides rapid results which are very valuable for policy discussions and driving forward policy change and intervention.

Another important tool for data collection in the Region is the WHO STEPwise approach to surveillance (STEPS), the surveillance system for NCD risk factors. The STEPS objectives are to:

- gather information on NCD risk factors to help plan and evaluate programmes and interventions;
- collect standardized, high quality, risk factor data to enable comparisons, but allow flexibility;
- provide WHO reference methodology for NCD surveillance;
- provide an entry point for countries to get started on NCD surveillance;
- build capacity in countries; and
- implement an integrated approach, which is, therefore, relatively low cost.

There are three different levels of risk factor assessment (questionnaire, physical measurements, blood and urine samples) and there are three modules (core, expanded, optional).

The core questionnaire covers sociodemographic information, tobacco, alcohol, fruit and vegetables, salt intake, physical inactivity, history and treatment of raised blood pressure, diabetes, raised cholesterol and cardiovascular disease, lifestyle advice and cervical cancer screening. The expanded module covers additional elements including other aspects of tobacco and alcohol use, lowering salt intake, oil consumption, meals outside the home and sedentary behaviour. The optional elements extend the scope to cover cervical cancer, mental health, oral health, sexual health, tobacco policy, violence and injury, COPD and depression.

For physical measurements, the core measurements include blood pressure, height, weight and waist circumference. The expanded module covers hip circumference, heart rate and objective physical activity measurement.

The core biochemical measurements are urinary sodium and creatinine, fasting blood sugar and fasting total cholesterol, while the expanded set includes triglycerides, HDL cholesterol and cotinine. The use of STEPS methodology enables inter-country comparisons and an international publication based on spot urine results is in the pipeline.

It is important, however, to progress beyond spot urine analysis. WHO has been supporting countries in the Region to do 24-hour urinary sodium analysis. Model protocols for the 24-hour studies have been published and, in January 2019, two training sessions were organized, in Vilnius, Lithuania, with Francesco Cappuccio and Marieke Hendriksen, and in Moscow, Russian Federation with Professor Cappuccio.

An ESAN Salt Data Collection Tool has been developed, with the following objectives:

- to share knowledge among countries on current salt reduction initiatives;
- to see what other countries have done (e.g. what works and what does not);
- to allow for this updated information to be collated and shared to inspire action in other countries; and
- consider whether it is possible to find common ground and work towards similar targets and objectives.

The main sections of this survey tool are:

- salt reduction policies, targets and actions;
- food reformulation targets and baseline composition;
- methods for monitoring food supply; and
- monitoring population salt intake.

The tool has been piloted in Austria, Bulgaria and Switzerland. The ESAN Secretariat will send it to other countries for completion. The results will be shared at the next ESAN meeting.

WHO has developed a document to guide countries on the development of country-specific salt reduction models using dietary intake modelling. The document outlines a five-step approach to developing a salt reduction model:

1. Obtain data on daily food intake and discretionary salt use;
2. Obtain data on the sodium content of foods (food composition data);
3. Calculate current food intake and sodium contribution of different foods and other sources;
4. Identify relevant sodium content targets for manufactured foods;
5. Calculate reductions required in sodium content of manufactured foods and discretionary salt use to achieve a 30% reduction in population salt intake.

This approach has been used in Turkey to define the reductions needed in salt levels in manufactured foods and the reductions required in salt added during cooking or added to foods during preparation or cooking.

WHO has supported countries to prepare documents making the case for investment in NCD prevention and control. These documents have been prepared for 10 Member States, and are very useful for evaluating cost effectiveness and for building political will for policy action.

WHO's Preventable Risk Integrated Model (PRIME) can be used to estimate the number of lives that would be saved by achieving the 30% salt reduction target. The impact of food industry co-regulation on mortality in Portugal has been modelled and a paper is in press. WHO is preparing a manual for use of the model, which is Excel-based and relatively easy to use.

A further option for monitoring could be through collaboration with the WHO Childhood Obesity Surveillance Initiative (COSI), which targets children aged 6 to 9 years.

A recent publication from WHO highlighted that while primary care is an ideal setting for chronic disease prevention and obesity management, yet it is underutilized. Only 63.3% of GPs in the European Region considered BMI to be an important measurement tool and only 41.6% actually provided the service. The report highlighted that treating the consequences is readily accepted by clinicians but confidence in addressing risk factors and treating obesity itself is low despite the fact that there is evidence that primary care interventions can be effective.

Discussion

The use of the PRIME model shows very clearly that, in many countries, salt reduction is the single most effective thing that can be done and this is very powerful for policymakers.

There was discussion of how discretionary use of salt can be measured. There are methods to approximate the proportion of salt coming from processed foods and that which is added in the home or at the table. The fact that salt comes from both processed foods and discretionary use, however, underlines the importance of 24-hour urinary methodology to estimate intakes.

For the future it will be important to explore development of other methods to collect data, using technology and artificial intelligence. This is particularly pertinent given the pace of change in food product composition. It would be useful to develop proxy questions in dietary surveys, or biomarkers which could be used. It was acknowledged, however, that any such new developments in relation to indicators would need to be carefully communicated to ensure that they complement rather than replace the gold standard methods (nationally representative dietary surveys; 24-hour urinary sodium excretion analysis), and great care should be taken not to make comparisons between indicators which are not comparable.

It was suggested that the STEPS model should specify potassium and iodine analyses, as well as urinary sodium. It was noted that within the European Region, WHO always proposes that countries also do potassium analysis and recommends that iodine should be done where possible. There was clarification that while iodine deficiencies are still an issue of concern in several countries of the Region and WHO policy is clear that universal salt iodization remains the best vehicle for addressing such deficiencies, there is no conflict between this approach and salt reduction strategies.

Salt reduction at country level: a new toolkit from WHO/Europe

João Breda presented an overview of a new country support package being developed by WHO.

The intention is to have a package for countries to use when taking action to reduce population salt consumption, inspired by existing toolkits, guidance documents and protocols published by WHO and others, but tailored to the European context and needs. It is intended to provide guidance on the key steps to implement a comprehensive national salt reduction programme

and includes tools, resources and materials to support implementation. The idea is that online tools can be updated continuously.

It is proposed to structure into three components — programme management, technical support and policy intervention — and each component will include a checklist and a list of resources (tools, case studies, examples) with direct links.

The programme management component covers issues such as forming a leadership team, mobilising relevant actors, securing a budget, setting a meaningful national target, agreeing objectives and developing operational and monitoring/evaluation plans.

The technical support component provides more detail on monitoring salt consumption, main sources of salt/sodium in foods and population knowledge and behaviour. It also includes the setting of targets to reduce the salt content of foods and dietary salt intake modelling to achieve population salt reduction.

The policy intervention component includes population awareness building (education and communication), reformulation of food products and the environmental aspects to create supportive settings.

It will be useful to include examples of country experience. Participants were asked to inform WHO of any useful tools or materials that could be included in the package (even if these are not currently available in English).

The next steps for the package development will be to have the materials critically reviewed by experts and to develop the format and graphic design. Once the package has been finalised there will be support for six to eight countries to implement the package in a comprehensive way.

Discussion

General support for the development of such a package was expressed.

There was discussion of any existing country experience of monitoring salt in the out-of-home sector, which is considered to be an extremely important issue. The FEEDcities approach looks at fast food and, as discussed, this methodology is available for other countries to use and adapt. WHO is keen to expand the use of the FEEDcities approach and would like to encourage other countries to use this methodology. Concrete results on the contribution of out-of-home eating to national salt intakes can be useful for stimulating change in the sector and, for example, motivating chefs to change their practices.

Another useful entry point is food in public institutions, such as schools and hospitals. Switzerland has examined communal catering (public sector food) and found that, despite the existence of standards, levels of salt were high and very variable. Public sector catering is highly amenable to regulation.

It was agreed that this would be a priority for future WHO work on salt in the Region. It was agreed that this would be a focus of the next ESAN meeting, showcasing country experience and lessons from such experience about which approaches are most effective. The huge dietary variations across the network — and the diversity of food environments — mean that countries

will need to identify the best mix of interventions for their own specific context. A useful resource on healthy public procurement in schools was developed for the Maltese Presidency and there may be future work to further disseminate this report or to expand the scope. For this future area of work it would be useful to reach out to the Healthy Cities Network and the Resolve to Save Lives initiative.

Session 4: Presentations of NGOs — update on their current work at EU level and via members in the countries

A number of actors from non-governmental organizations (NGOs) active on salt reduction were invited to join the meeting, and each presented a short overview of their work in the field.

Swiss Heart Foundation on behalf of the European Heart Network

Robert Keller, Swiss Heart Foundation, presented an overview of European heart foundations' work on salt reduction, on behalf of the European Heart Network.

The European Heart Network is a Brussels-based alliance of foundations and associations dedicated to fighting heart disease and stroke and supporting patients throughout Europe. Its mission is to play a leading role in the prevention and reduction of cardiovascular diseases, in particular heart disease and stroke, through advocacy, networking, capacity-building, patient support, and research so that these conditions are no longer a major cause of premature death and disability throughout Europe. It is driven by the vision that every European has a right to a life free from avoidable cardiovascular diseases.

In relation to salt reduction, EHN has made recommendations for food and drink policies which relate to salt reduction, has published position papers on the interpretation of salt study results and is influencing European policymakers in favour of heart-healthy policies.

The activities of the Swiss Heart Foundation concentrate on promoting research, educating and counselling for patients and their relatives, as well as facilitating health promotion and prevention in the general population. Through these activities, the Foundation hopes to contribute to advances in the prevention, early detection, treatment and rehabilitation of cardiovascular diseases, to help improve the quality of life of those affected and motivate the general public to adopt a healthy lifestyle.

A number of heart foundations and associations are taking specific action to support salt reduction. The Swiss Heart Foundation, for example, has organized a roundtable with experts, published a consensus paper, conducted a media campaign and distributed leaflets to family doctors. It has also promoted health checks in pharmacies nationwide and health checks for workplaces at a nominal cost. The Dutch Heart Foundation has conducted media campaigns on healthy blood pressure and provided blood pressure measurements with targeted advice on healthy nutrition and salt reduction, as well as supporting research on blood pressure and healthy living. The Finnish Heart Association has also conducted awareness and public information campaigns, promoted blood pressure measurement at events across the country, participated in the development of dietary guidelines for child day care/schools and included salt in the criteria for its front-of-pack labelling logo. Awareness and public information activities by the Danish Heart Foundation include dissemination of public information about salt reduction, naming and shaming product/production chains and highlighting those that have made progress with salt reduction, as well as those that have not done enough. Its other

activities include advocacy and policy, involvement in the Food Innovation Partnership between authorities, food producers, health organizations and academia and working on a comprehensive monitoring programme. The Irish Heart Foundation has also disseminated public information on salt reduction and included salt reduction as one of the criteria for its workplace healthy eating award, as well as providing free health checks for farmers and in workplaces at a nominal cost.

Discussion

There was some discussion about the support offered to people following health checks. Healthy lifestyle advice is provided during the health check, but there is also clearly a role for GPs and other professionals to support people in making lifestyle changes. None of these lifestyle interventions should detract from the importance of reducing levels of salt in food products.

There was also discussion of the variation between Member States in the European Region. This is where Europe-wide organizations play an important role — advocating for policy change across the Region.

Heart foundations play an important role in funding research. Currently, the research agenda relating to cardiovascular disease often focuses on clinical aspects and tends not to closely reflect the needs for driving forward policy. It was suggested that there could be a role for EHN to promote dialogue with national heart foundations and clinicians to advocate for funding for research on public health and population-based approaches and, therefore, more directly relevant to supporting policy change.

Federation Romande Des Consommateurs on behalf of the European consumer organization, BEUC

Barbara Pfenniger, *Federation Romande Des Consommateurs* (FRC,) presented the viewpoint of a consumer organization.

FRC is a non-profit association which is the consumer organization for French-speaking Switzerland. It was founded in 1959 and has about 25 000 members, with a remit to inform and empower consumers, represent consumers and defend their interests. It is a member of the Alliance of Swiss Consumer Organisations, the European consumer organization (BEUC), the International Consumers Research and Testing (ICRT) and a Swiss NGO alliance on nutrition, physical activity and healthy body weight.

As part of salt reduction efforts, FRC established a salt observatory between 2012 and 2018, to monitor salt levels in 108 products in 14 categories. By 2018, reformulation had resulted in salt reductions in 51 products (18% reduction in median), while 12 products were unchanged and 30 products contained higher levels of salt (18% increase in the median). It can be seen that the cheaper products have less salt, while more expensive products have higher salt levels.

BEUC supports mandatory government-defined targets for reformulation, covering all products, to ensure a level playing field. Across the EU, there has been some success with reformulation, but results have been patchy and nutrient levels can vary widely between similar products. The 2008 EU Framework on Salt Reduction has been implemented on a voluntary basis and, to date, there has only been one monitoring report. The annex on added sugars (2015) has seen slow progress, with only one of 11 key product categories having set out its plan to

reach the 10% sugar reduction by 2020. A positive step is the recent adoption of the EU trans fats regulation.

Consumer organizations are unconvinced by industry arguments that there is no room on the front of food packages to include a meaningful front-of-pack nutrition label. Removal of some claims and marketing messages, for example, could create more space. A colour-coded nutrition label would help consumers to choose between processed food products. Research on the Nutri-Score label in France has shown that such labels are particularly effective for people with limited nutrition knowledge and/or low socio-economic status. Within the EU, BEUC considers that front-of-pack nutrition labelling is very important and consumer organizations are now waiting for the Commission to publish a report on front-of-pack nutrition labelling.

Another issue of concern is health and nutrition claims. Under the 2006 Nutrition and Health Claims Regulation, nutrient profiles should have been set by the Commission by January 2009 but have still not been established. Companies are still, therefore, using claims to give products which are high in fats, salt or sugar ‘healthy halos’ which they do not deserve. BEUC raised awareness of this issue by publicising a ‘celebration’ of 10 years of non-introduction of the nutrient profiles, and this remains an important issue for advocacy.

In relation to marketing to children, FRC found that, despite industry self-regulation, certain practices for marketing food to children are still prevalent. There are no rules, for example, on the use of mascots on food packaging and around 84% of the foods with children’s mascots on the labels were sweets, snacks or soft drinks. BEUC has expressed disappointment with the Audiovisual Media Services Directive (AVMSD), and its continual reliance on self-regulation. It is important to remember that the AVMSD sets out the minimum level of harmonization and Member States can go further. The EU Pledge, the self-regulatory pledge by 22 multi-national food and drink companies to restrict marketing to children, has weak nutritional criteria (allowing high salt levels) and is ineffectual.

Other work includes dialogue with health organizations and medical professionals and consumer empowerment to help them make healthier choices.

In conclusion, consumers need better food containing less salt, colour-coded front-of-pack nutrition labels on all products, nutrient profiles for health and nutrition claims, coherent rules limiting marketing to children and information or empowerment in order to be able to make healthier food choices.

Discussion

There was some discussion about which of the barriers identified — such as lack of labelling rules, prevalent marketing to children, product quality — was the most difficult to overcome. The extent of opposition to any regulation by health authorities can easily undermine efforts, and this is why WHO’s support for Member States to implement a strong response is crucial.

World Action on Salt and Health

Mhairi Brown, Wolfson Institute of Preventive Medicine, United Kingdom, provided an overview of the World Action on Salt and Health (WASH).

WASH has more than 600 members from 100 countries worldwide. It helps develop and implement salt reduction actions, works with Members to monitor salt in foods available

worldwide, conducts public health campaigns to reduce salt consumption and shares evidence on salt and its effects on health.

One of the main actions is the annual global product survey. In 2019 data was collected on 343 children's meals sold in leading fast food outlets in 14 countries globally. The survey found that more than a third (39%) of meals contained more than 1.8 g salt per portion, which is equivalent to Public Health England's target for the maximum salt content of children's meals sold in the out of home sector. It also found variations between meals from the same restaurant chain sold in different countries — a McDonalds' cheeseburger happy meal, for example, had three times as much salt in Spain as in South Africa. The lowest salt option was a Subway children's meal sold in Denmark. In 2016, data on breakfast cereals were collected from 29 countries. The study would that more than a third (34%) provided more than 1 g salt per 100 g and, once again, salt levels varied widely around the world (e.g. 46% more salt in a cornflakes product India than in the same product in Argentina). In 2018, data collected on bread from 30 countries found that 34% of breads sampled had more than 1.13 g per 100 g. Research has shown that a reduction of salt in bread by 25% over a six-week period is not perceived by consumers, illustrating that bread is an excellent target for salt reduction.

Another main area of activity is World Salt Awareness Week, an annual campaign to raise awareness and understanding. In addition, WASH is working with partners to support salt reduction in countries such as China and Malaysia.

Participants were invited to join WASH, in order to pursue a common-sense approach to salt reduction and to counteract the impact of the small number of scientists undermining the salt reduction message.

Discussion

It was noted that these inter-country comparisons of salt levels in similar products are very valuable for advocating that companies ensure that their products sold worldwide match the levels of those with the lowest salt levels (i.e. all products should match those of their "best" products).

Conclusions, next steps, next host country

Michael Beer and João Breda offered concluding remarks and introduced the discussion on the next steps and the meeting conclusions.

The presentations and discussions throughout the meeting demonstrated that ESAN members still have a lot to learn from one another. A number of suggestions for future work had emerged:

- The ESAN Secretariat would share the new ESAN Salt Data Collection tool for completion by all ESAN members.
- WHO to finalize the country support package for national salt reduction strategies, disseminate to countries and provide support to a small number of countries to fully implement the package.
- Extending the use of the PRIME model to estimate the numbers of lives that could be saved by implementation of salt reduction policies to reduce intakes by 30% by 2025 in ESAN countries. This could be published as a joint publication.

- Eating out/ Out-of-home sector: Expand the use of the FEEDCITIES approach/methodology for ESAN Member States to be able to obtain data on salt levels in the out-of-home sector.
- Include detailed consideration of issues around the contribution of food eaten outside the home to salt intakes in the agenda for the next ESAN meeting (showcasing country experience, lessons on what has worked, exploring links with the Healthy Cities Network and the Resolve to Save Lives Initiative).

For the next meeting, it may be possible to organise the meeting in Moscow, presenting the opportunity to engage with Member States in the eastern part of the European Region. This will be explored in coming months.

Member State representatives were also asked to consider hosting future meetings and propose future speakers. All suggestions should be forwarded to the ESAN Secretariat and/or WHO Europe.

Annex 1

LIST OF PARTICIPANTS

Austria

Judith Benedics
Federal Ministry of Labour, Social Affairs, Health and Consumer Protection

Denmark

Maja Lund
Danish Veterinary and Food Administration

Estonia

Haidi Kanamäe
The National Institute for Health Development

Sille Pihlak
Ministry of Social Affairs

Germany

Anke Weissenborn
Federal Ministry of Food and Agriculture (BMEL)

Hungary

Eszter Sarkadi-Nagy
National Institute of Pharmacy and Nutrition

Ireland

Clare O'Donovan
Food Safety Authority of Ireland

Israel

Carmit Safra
Ministry of Health

Lithuania

Indre Makarskiene
Ministry of Health

Netherlands

Erika Smale
Ministry of Health, Welfare and Sport

Norway

Anne Kathrine Aarum
Norwegian Directorate of Health

Henriette Øien
Norwegian Directorate of Health

Portugal

Maria João Gregorio
Directorate General of Health

Switzerland

Michael Beer
Federal Food Safety and Veterinary Office

Liliane Bruggmann
Federal Food Safety and Veterinary Office

Judith Jenny-Burri
Federal Food Safety and Veterinary Office

Steffi Schluechter
Federal Food Safety and Veterinary Office

Nathalie Voisard
Federal Food Safety and Veterinary Office

WHO

João Breda
WHO Regional Office for Europe

Kremlin Wickramasinghe
WHO Regional Office for Europe

Liza Villas
WHO Regional Office for Europe

Olga Zhiteneva
WHO Regional Office for Europe

Chizuru Nishida
World Health Organization

WHO Collaborating Centre

Francesco Cappuccio
WHO Collaborating Centre
University of Warwick

Marieke Hendriksen
National Institute for Public Health and the Environment (RIVM)

Temporary Advisers/Speakers

Lauren Bandy
WHO Collaborating Centre
University of Oxford

Walter Bisig
Agroscope

Mhairi Brown
World Action on Salt and Health (WASH)

Arnaud Chiolero
Fribourg University

Robert Keller
Swiss Heart Foundation

Barbara Guggenbühl
Agroscope

Barbara Pfenniger
Federation Romande Des Consommateurs

Rapporteur

Karen McColl

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01

Email: eurocontact@who.int

Website: www.euro.who.int