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Policies for the prevention and control of Noncommunicable diseases in the WHO European Region – *the example of salt*

Políticas de prevenção e controlo das doenças não transmissíveis na Região Europeia da OMS – *o exemplo do sal*

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Revisão Temática

1.º Ciclo em Ciências da Nutrição

Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

Porto, 2012

Abstract

Noncommunicable diseases are responsible for more than 80% of deaths in the Member States of the World Health Organization European Region. Unhealthy diets are one of the most relevant risk factors and the reduction of excessive salt intake is a priority intervention in the prevention and control of noncommunicable diseases.

The implementation of policies to reduce salt intake in populations, although not always a top priority on a government agenda, present a cost-beneficial and effective approach that must be taken into account to improve the welfare and quality of life of people.

The involvement of partners such as the food industry and media, along with different agencies and national associations and a proper monitoring system is the key to the success of a national policy to reduce salt intake to 5g/day, the World Health Organization recommendation.

A closer look at the different political successes in the World Health Organization European Region will help the countries across the Region to implement a well-structured and effective national policy with beneficial results to health.

Keywords

Noncommunicable disease, Salt, Policy, World Health Organization European Region

Resumo

As doenças não transmissíveis são responsáveis por mais de 80% das mortes na Região Europeia da Organização Mundial de Saúde. Dietas não saudáveis são um dos factores de risco mais relevantes e a redução do consumo excessivo de sal é uma das intervenções prioritárias na prevenção e controlo das doenças não transmissíveis.

A implementação de políticas para a redução do consumo de sal nas populações, apesar de não estar no topo da agenda governamental, apresenta um custo-benefício e uma efectividade que deve ser tomada em consideração para melhorar o bem-estar e a qualidade de vida das populações.

O envolvimento de parceiros, como a indústria alimentar e os *media*, com os diferentes organismos e associações nacionais e um correcto sistema de monitorização são a chave para o sucesso de uma política nacional de redução do consumo de sal, a fim de reduzir a ingestão de sal para 5g/dia, de acordo com a recomendação da Organização Mundial de Saúde.

Um olhar atento nos diferentes sucessos das políticias na Região Europeia da Organização Mundial de Saúde poderá ajudar os países da Região, a implementar políticas nacionais bem estruturadas e eficazes com resultados benéficos para a saúde.

Palavras-chave

Doenças não transmissíveis, Sal, Política, Região Europeia da Organização Mundial de Saúde

Contents

List of Abbreviations

(In alphabetic order)

ASAE - Portuguese Food and Economic Safety Authority

DVFA - Danish Veterinary and Food Administration

EU - European Union

FAO - Food and Agriculture Organization of the United Nations

GIRCSI - Interdisciplinary Working Group for Reduction of Salt Intake in Italy

IDD – Iodine Deficiency Disorders

INRAN - The National Research Institute for Food and Nutrition

NCD - Noncommunicable diseases

NGO – Non Governmental Organizations

NOPA - European Database on Nutrition, Obesity and Physical Activity

OÉTI - National Institute for Food and Nutrition Science (Hungary)

OTÁP - National Diet and Nutritional Status Survey (Hungary)

PAHO/WHO - Pan-American Health Organization/ World Health Organization

UNICEF – United Nations International Children's Emergency Fund

USI – Universal Salt Iodization

WASH – World Action on Salt and Health

WHO - World Health Organization

WHO/Europe - World Health Organization European Region

Introduction

The World Health Organization (WHO) Constitution states that "*Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*"[1]. However the noncommunicable diseases (NCD) epidemic is responsible for more than nearly 80% of the deaths and 77% burden of diseases in the World Health Organization European Region (WHO/Europe)[2].

The disease burden linked with the NCDs is highly associated with common risk factors (unhealthy diets, alcohol, tobacco and physical inactivity). Therefore healthy diets are essential for a life with well-being thus the reduction of harmful components of the diets such as salt is crucial due to the high intake in most of the countries in the Region. As such WHO/Europe supports the development and implementation of strategies and policies to promote health[3].

In this context, an update of the current salt reduction initiatives taking place among four countries (Denmark, Hungary, Italy and Portugal) is described here. Renewed efforts to implement a well-structured and effective policy with beneficial results for health should be taken by the Member States possibly inspired by the established policies described in the literature for the United Kingdom and Finland[4-6].

Background

In 2003, a joint report by the Food and Agriculture Organization of the United Nations (FAO) and WHO recommended a reduction of salt intake at the population level to less than 5g/day, ensuring salt iodization appropriately[7]. "*WHO Global Strategy on Diet, Physical Activity and Health*"[8] and the "*2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Non-communicable*

Diseases"[9] emphasized the importance for Member States to continue addressing common risk factors for noncommunicable diseases. Following the technical meeting on "*Reducing Salt Intake in Populations*" held in Paris in 2006, a set of recommendations was launched to encourage the implementation of national salt reduction programs[10]. The European Union (EU) High Level Group on Diet, Physical Activity and Health established the EU Framework for National Salt Initiatives in 2008 to support and reinforce national plans to an easy comparison across the Member States[11, 12]. In order to effectively reduce salt intake in the population, the "WHO European Action Plan For Food And Nutrition Policy 2007-2012" underlined the health goal of reducing the prevalence of diet-related noncommunicable diseases as well as the target of <5g/day of salt intake and the "*Action Plan for the Implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012-2016"* was launched in 2011 setting salt reduction as a priority intervention[2]. Finally, in September 2011, the "*Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Noncommunicable Diseases"* of the United Nations highlighted the importance to promote the development and initiate the implementation of cost-effective interventions to reduce salt while taking into account existing legislation and policies[13].

Methods

Evidence for this report was extracted from the European Database on Nutrition, Obesity and Physical Activity (NOPA) which compiles information for the WHO European Member States on national surveillance data and policy documents. Relevant electronic databases were used to collect relevant data to the report and pertinent governmental websites (Ministry of Health, National Public Health

Institutes, Nongovernmental organizations and scientific associations) were hand searched in order to identify additional national policies or initiatives. Additional information on salt reduction initiatives was received by Member States consultations through electronic communication with WHO Nutrition Counterparts within the WHO/Europe. Finally, technical reports from government agencies or scientific research groups were also included. National policies or initiatives not mentioning salt were excluded.

Relevant data on national salt reduction strategies in Member States was gathered. Incorporating key elements from the EU Framework for National Salt Initiatives[11, 12] as well as the essential steps from the Pan-American Health Organization/ World Health Organization (PAHO/WHO) expert group report[14], the information obtained was presented in a matrix hybrid with six (6) relevant sections: 1) Current national initiatives – This section describes recent and current national initiatives related to salt reduction. This includes an existing national programme or independent salt-specific programme; 2) Baseline assessment – Methods used to conduct environmental scans including primary sources of dietary salt intake and current levels of salt intake measured by urinary sodium excretion (24h urine or spot urine collection) or dietary survey (24h dietary recall or food frequency questionnaire); 3) Consumer information and awareness – Activities to raise public awareness such as online tools, pamphlets, social media, national salt days and television/radio advertising were included; 4) Labelling – The use of labelling to highlight the salt content of foods and the inclusion of symbols, logos or text to identify salt in products; 5) Industry involvement – Actions undertaken by food and catering industries, food retailers and restaurants in order to reduce salt levels in prepared and processed foods; and 6) Monitoring and

Evaluation – This section plays a fundamental role in measuring the implementation of the salt reduction initiative. Actions included were self-reporting framework by industry, salt intake surveys (from sodium excretion or national food consumption surveys), monitoring salt content of foods and effectiveness of actions to raise public awareness.

Salt reduction Initiatives: Country examples

Denmark

Current national initiatives: Denmark is involved on "*Nordic Plan of Action on better health and quality of life through diet and physical activity*"[15]. The Ministry of Food, Agriculture and Fisheries has targeted an overall salt reduction benchmark of 16% over a four-year period, seeking to achieve a reduction in the population average daily salt intake to 6 g/d salt for women and 7 g/d for men[16]. The current salt strategy is implemented by a set of national partnerships including the Danish Veterinary and Food Administration (DVFA), the Danish Food and Drink Federation, the Danish Agriculture and Food Council and other national associations. The National Food Institute and the Technical University of Denmark participate in monitoring[17].

Baseline assessment: Population salt intake levels were estimated via dietary records and survey data at 7.3 g/day for women and 9.8 g/day for men in 2008. Earlier results from a dietary survey carried out in 2000-2002 had demonstrated a decrease in salt intake of 10-15%, primarily attributed to new data on bread and bread products. Actual salt intake levels were estimated to be higher because salt added at the dinner table was not included in the survey[18]. A separate estimate was then carried out in 2008 from the mean urinary sodium excretion measured in four 24-hour collections from 87 individuals. Household salt,

added to the volunteers' food, was assessed using a lithium-marker technique. Based on these measurements, total daily salt intake was assessed at 11 g in men and 7 g in women. Median intake of household salt was estimated at 1.0 g/day in men and 0.5 g/day in women, corresponding to 10.2% and 8.7% of total salt intake in men and women, respectively[19].

Consumer information and awareness: Information is supplied to consumers via a website. Information on the major contributors to daily salt intake as well as tips on how to reduce intake are presented. Several publications have also been drafted for the general public on salt awareness. The DVFA regularly disseminates information on healthy eating and physical activity. This includes information regarding salt requirements, salt sources and advice on how to reduce intake in the form of pamphlets and promotional films, among other means of communication[17].

Labelling: Sweden, Denmark and Norway have agreed on a common Nordic food labelling symbol, known as the *Keyhole* (a nutrient profiling mechanism) that was implemented in 2009. The DVFA is responsible for administering the *Keyhole* labelling initiative in Denmark. The *Keyhole* front-of-package food labelling system helps consumers to identify healthier products. To earn the symbol, a food product must be lower in fats, sugar and sodium, and/or higher in fibre, than other foods within the same category. Engagement in the food labelling initiative started in October 2008, when a political agreement reached by the Ministerial Council on new legislation for food labelling was signed. Labelling is on a voluntary basis but is expected to become mandatory within a few years. The

most recent review on labelling criteria started in 2011 and will come into force in early 2013[20].

Industry involvement: Discussions with the food industry have been undertaken with the expectations of providing producers with a practical set of guidelines and goals, which remain under development at this stage. Efforts to reduce the salt content used in restaurants, canteens and other eating establishments such as fast food chains are also planned, including placement of the *Keyhole* logo at the main entrance of dining establishments to facilitate consumers to make healthier choices when eating out. A private, self-regulatory initiative, the "Forum of Responsible Food Marketing Communication" (Forum for Fødevarereklamer), was launched in December 2007 and is still in place by a group of industry partners. One of the actions undertaken by this Forum was the development of a "*Code of Responsible Food Marketing Communication to Children*", which the government has welcomed as a form of self-regulation and a positive first step[21].

Monitoring and evaluation: Two studies are planned to be carried out in 2014, wherein total salt and household salt consumption will be assessed in 100 subjects, and sodium content will be assessed in 500 randomly selected spot urine samples. The results will give an idea of the change in total salt intake over time, and will show whether the intake of household salt increases when the intake from industrial produced food decreases[12].

Hungary

Current national initiatives: Hungary's national salt initiative is currently part of the National Public Health Programme 2003-2013[22]. The country joined the EU Framework for Salt Reduction in 2009. By February 2010, the "STOP SALT!"

National Salt Reduction Program was launched, coordinated by the National Institute for Food and Nutrition Science (OÉTI). The Minister of Rural Development, together with the Minister of National Resources and the National Economy Minister, supervised the first phase of the campaign in August 2010 to ensure that reformulation measures were carried out to reduce the sugar, fat and salt content of certain foods. The national recommendation was set in under 5 g/day[23].

Baseline assessment: Under the coordination of the “STOP SALT!” National Salt Reduction Program, data were collected from the local commercial and public canteens and food served was assessed for salt content. The National Diet and Nutritional Status Survey (OTÁP) was carried out in 2009 to measure population salt intake and to evaluate the level of public awareness regarding the salt content of the different food groups. The salt and other nutrient intakes of the Hungarian adult population were calculated based on 3-day dietary record of a sample population representative of the general adult population in terms of age and gender. The survey results showed that only half of the Hungarian adult population is aware of the relation between excess salt intake and high blood pressure. According to the OTÁP findings, daily salt intake was 17.5 g in men and 12.1 g in women, compared to a random sample of 200 adults which found that 24-hour salt excretion levels were 11.2 g in men and 9.6 g in women. The OÉTI also collected and measured the salt content of 436 food samples belonging to different food groups. Among processed foods, bread and other bakery products accounted for 31% of salt intake, while meat products accounted for 21% of salt intake[23].

Consumer information and awareness: The first public campaign phase of the Hungarian action plan was carried out in 2010, with the main message emphasizing that excess salt intake causes high blood pressure, heart attack and stroke. The campaign also provided advice on measures to reduce salt intake and highlighted the importance of conscious shopping, the recommended daily allowance (RDA) for salt intake, as well as the relation between level of salt and sodium. The 5-week campaign also included use of the "STOP SALT!" logo and the campaign slogan, "Don't be salty!" in all communication materials including websites, printed materials and radio and television spots. The OÉTI, together with the National Public Health and Medical Officer's Service, distributed campaign flyers to general practitioners' offices, hospitals, local governments, public caterers, child welfare institutions, leisure time and community centres, elderly homes, and school camps, among other sites. The 2010 Salt Reduction Programme was promoted in more than 65 national and local events, reaching a broad segment of the population[23].

Labelling: In 2011, the Minister of National Resources, together with the Minister of Rural Development and the Minister of Justice, started working on labelling aspects pertaining to salt in food. Plans to implement such measures include establishing a regulatory framework to be implemented in schools[23].

Industry involvement: Although collaboration with industry was originally planned, industry partnerships up to now have been difficult to realize. There has, however, been a certain amount of progress on this front as some food products fell under the Public Health Product Tax Act of 2011 based on their salt content[24]. The guidelines on public catering and the related normative order of the Chief

Medical Officer are also good examples of successful components of the salt reduction initiative[23].

Monitoring and evaluation: The most recent salt intake data were obtained from the OTÁP, the fourth such survey, organized by the OÉTI[23].

Italy

Current national initiatives: The year 2007 marked the birth of the Interdisciplinary Working Group for Reduction of Salt Intake in Italy (GIRCSI), with the commitment and active involvement of eight partner Italian scientific societies. The National Platform working group is led by health professionals, associations of bakers, epidemiologists and medical officers of the Ministry of Health[25]. In 2009, the MINISAL-GIRCSI Program was established with the support of the National Centre for Disease Prevention and Control, the operational branch of the Italian Ministry of Health. The primary objective of this programme was to undertake the baseline evaluation and subsequent monitoring of usual salt intake in the Italian adult, pediatric and hypertensive populations, as well as the evaluation of the salt content of selected commercially available food items. The programme has been planned to span the process of salt reduction initiatives undertaken over the next years and to evaluate the effect of these measures on specific health outcomes including hypertension[26].

Baseline assessment: The National Research Institute for Food and Nutrition (INRAN) analysed a representative sample of the adult Italian population, in collaboration with the Italian National Institutes of Health and as part of the 2009-2011Cardiovascular Epidemiologic Observatory/Health Examination Survey. This included an assessment of the age-, sex- and region-specific average sodium

and potassium intake in a representative sample of the adult hypertensive population. This was made in collaboration with the Italian Society of Hypertension Regional Sections and was followed by discussion of the study results with the family doctors of the participating patients. Preliminary results from baseline data analysis of 12 different random samples collected within the MINISAL-GIRCSI-Health Examination Survey in 2008 indicated that the Italian adult population consumes salt at levels more than double the WHO-recommended salt intake. Mean daily sodium chloride intake was estimated at 11 g in men and 8 g in women, with a range of 1-27 g and 2-27 g, respectively. The study also found that 72% of individuals eat three slices of bread per day and 22% eat cheese and processed meat more than 4 times per week[27]. A baseline assessment of the region-specific average salt content of bread and other baking products was also conducted under INRAN. Data on the final outcomes of the MINISAL-GIRCSI Program are expected by mid-2012[26].

Consumer information and awareness: World Salt Awareness Week, launched each year by the international World Action on Salt and Health (WASH) organization and supported in Italy by GIRCSI and, in particular, by the Italian Society of Human Nutrition, is promoted every year at the national level. Educational activities conducted in the framework of the WASH Salt Awareness Week and World Hypertension Day are sustained by GIRCSI and help to highlight an awareness and responsibility in the Italian catering arena. Emphasis is placed on the promotion of communication campaigns (television, booklets, magazines, etc.) to increase public awareness about the importance of reducing salt intake[26].

Labelling: The GIRCSI has made an effort to promote agreements with the food industry to improve the labelling of products, encouraging companies to adapt

to the set requirements while at the same time maintaining comprehensible labelling for general public[26].

Industry involvement: In 2009, an official agreement was signed between the Minister of Health and the bakers' associations, committing industry to reduce the salt content of bread and other bakery products by 10-15% over two years. Further reductions to be enacted in the next two years involve the food catering sector (restaurants, pubs, bar and fast food chains) in measures designed to make low-salt foods and dishes more easily available[26].

Monitoring and evaluation: To monitor actions and evaluate the results, a well-executed 24-hour urine collection along with demographic and anthropometric information is planned to be done on systematic way and within a surveillance process. Such monitoring activities are planned to be repeated on a regular basis in order to assess the effectiveness of measures implemented[12].

Portugal

Current national initiatives: A national guideline was established in 2004 to reduce the population average salt intake to less than 5g/day[28]. In 2006, the Portuguese Society of Hypertension formed the "Portuguese Action Against Salt and Hypertension"[29]. In 2007, the National Platform against Obesity was created, with the collaboration of several representatives from the Ministries of Health, Education, Economy and Agriculture, together with municipalities, civil society and NGOs. The Platform has a Scientific Council and a Consultant Council composed of representatives from several food and nutrition companies, institutions and NGOs; its mission is to fight obesity at primary, secondary and tertiary levels. Salt reduction is a key component within this platform[30]. The National Health Plan

2012-2016 was launched integrating the National Programme for the Promotion of Healthy Diets, however just a brief reference is made to salt[31, 32].

Baseline assessment: In 2006, a pilot study conducted with a sample of almost 500 people although not representative but still with high relevance, reported an average salt intake of 12.3 g/day, using 24-hour urine sodium excretion evaluation techniques[29]. Baseline assessments to analyse the salt content in bread have reported values higher than the recommendation, ranging from 344 to 724mg sodium/100g of bread in the most consumed type of bread[33, 34]. The meals served in school canteens have also been shown to contain high levels of salt, most 2 to 3 times higher than the recommended amount[35].

Consumer information and awareness: In 2005, the General Directorate of Health published a booklet, *Salt - Principles for a Healthy Diet*, containing guidelines, suggestions and tips to reduce the amount of salt used in cooking[36].

Labelling: In August 2009, the Portuguese Parliament fixed an upper limit of 550mg sodium/100g bread. The law gives orientations to label processed foods that must include information on salt content and percentage per product and per portion. The Portuguese Food and Economic Safety Authority (ASAE) is responsible for monitoring the salt content in food and ensuring compliance with the law[37].

Industry involvement: Since 2006, several regional programmes have been implemented, including the “Pao.come” in the Central Region of Portugal. The aim of this project is to raise awareness regarding the problem of high salt intake, along with an educational campaign directed at food manufacturers, health authorities and policy makers. The main objective has been to reduce the salt content in bread to less than 1% by working with bakers in workshops, offering

supportive material, monitoring salt content in bread and updating reports to guarantee that the steps planned are being achieved[38].

Monitoring and evaluation: No action planned.

Analysis

Denmark, Hungary and Italy are examples of countries who have implemented salt reduction policies. Portugal has some sparse actions however these might not be enough to reduce the salt intake in the population given the lack of articulation between different actions and its scale. It is necessary to look at salt reduction as a priority intervention and create a structured policy for the well-being of the Portuguese population. Still, when developing salt reduction policies, it is important to acknowledge that each country faces unique challenges and barriers that come with implementing, executing and assessing any national intervention.

Although salt reduction strategies are not always a top priority within a government agenda, governing structures are a critical element in achieving a successful salt reduction policy. The surveillance of the policies is important to guarantee the successful implementation. Thus, the 24-hour urine test method, considered as a gold standard, should be the option to validate the results from dietary records, and assure the systematic monitoring and evaluation of the salt intake[39, 40].

The detailed analysis of each Member State allowed for the classification of each country, according to their action plan into 3 categories: 1-No Action Plan, 2-Planned/Partially Implemented, 3-Fully implemented (ANNEX A). This, in turn allowed for the creation of a coloured atlas based on this categorization. The atlas provides a visualisation of the implementation/existence of salt reduction policies across the WHO European Region (ANNEX B).

Improving Salt and Iodine Policies

An important issue that goes hand in hand with salt consumption is iodine fortification. While implementing salt reduction policies it is essential to acknowledge this issue.

Iodine deficiency is one of the major nutrient deficiencies in the WHO European Region. Since 2003 the number of countries with insufficient iodine intake has decreased however it still remains a significant public health problem. In 2011, 44,2 % of the general population had insufficient iodine intake[9]. Iodine deficiency disorders (IDD) will occur if the physiologic requirements are not met by the iodine intake. Miscarriages and increased perinatal mortality, central nervous system malformations, mental retardation, retarded physical development and goitre are only a few of the IDD[9, 41, 42]. Since 1993, WHO and UNICEF recommend Universal Salt Iodization (USI) as the primary strategy for eliminating IDD. The experience shows that this strategy is sustainable but requires political commitment, an effective and operational monitoring and evaluation system, a strong collaboration between the partners involved in the control of iodine deficiency, and public education[42].

Salt has been chosen as a vehicle for fortification because of its widespread consumption and the extremely low cost of iodization which allows a safe, simple, cost-effective and cost-benefit strategy to reduce iodine deficiency[42]. But, salt iodization should not promote salt consumption and countries should be encouraged to implement complementary measures to increase iodine intake. In most countries of the WHO European Region iodization of table salt or cooking salt is mandatory but this is not the major source of salt in the diet. Nowadays, processed food is responsible for 80% of daily salt intake however the iodization of

this type of salt is still voluntary[43]. Another issue is that the consumption of table salt or cooking salt is decreasing hopefully due to salt reduction programmes[42]. Sodium intake is highly associated with hypertension which is a major risk factor for cardiovascular diseases[5, 44]. In this context, there is a need to adjust the concentration of iodine in salt in order to facilitate a sufficient supply of iodine without exceeding the current recommendation of salt intake by WHO (<5 g/day). Salt intake can be reduced without compromising micronutrient fortification. It is essential that the monitoring and surveillance system is correctly implemented in order to balance iodine salt fortification levels and salt intake. These two public health initiatives are not contradictory. The countries need to ensure that salt iodization and salt reduction policies work in tandem since they are compatible, cost-effective and of great public benefit. The success of IDD elimination and reduction salt consumption can be successful concurrently[45, 46].

Conclusion

Different countries have different approaches when it comes to salt reduction, and countries like Portugal, still have a long way to go in order to reach the WHO recommendation of 5 g/day of salt. It is imperative to raise awareness among governments about the importance of implementing national salt reducing policies in order to reduce population salt intake and hence improve the health of their populations.

Public health initiatives, in tandem with efforts by the food industry, are urgently needed to lower salt consumption and consequently lower NCD burden. Such public health approaches can be simple, low-cost and effective and should be a priority intervention for the country[47].

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ANNEXES

Contents annexes

Annex A – Table 1 Status of salt reduction policies in the WHO Member States

	CNI	BA	CA	L	II	M&E	SI (g/day)	AP status
Albania	×	×	×	×	×	×		1
Andorra	×	✓	✓	×	×	×	7.5	2
Armenia								1
Austria	✓	✓	✓	×	✓	✓	8.5	3
Azerbaijan								1
Belarus								1
Belgium	✓	✓	✓	×	✓	✓	7	3
Bosnia and Herzegovina								1
Bulgaria	✓	✓	✓	×	✓	✓	13.8	3
Croatia	✓	×	×	×	○	✓	-	2
Cyprus	✓	✓	✓	×	✓	×	5	2
Czech Republic	×	✓	✓	○	✓	×	13.6	2
Denmark	✓	✓	✓	✓	○	✓	8.6	3
Estonia	✓	✓	✓	✓	○	✓	10	3
Finland	✓	✓	✓	✓	✓	✓	8	3
France	✓	✓	✓	✓	✓	✓	7.5	3
Georgia	×	×	○	×	×	×	-	1
Germany	×	✓	✓	×	×	✓	7.8	1
Greece	✓	×	✓	✓	○	×	-	2
Hungary	✓	✓	✓	○	✓	✓	14.8	3
Iceland	×	✓	✓	×	○	✓	8	2
Ireland	✓	✓	✓	✓	✓	✓	8.9	3
Israel	×	✓	×	✓	○	✓	7	2
Italy	✓	✓	✓	○	✓	✓	10	3
Kazakhstan								1
Kyrgyzstan								1
Kosovo	×	×	×	×	×	×		1
Latvia	×	✓	✓	×	○	✓	7.1	2
Lithuania	×	✓	✓	○	○	✓	9	2
Luxembourg	×	×	✓	✓	○	×	-	2
Malta	✓	×	✓	×	○	×	-	2
Monaco								1
Montenegro	✓	×	×	×	○	×	-	1
Netherlands	✓	✓	✓	✓	○	✓	9	3
Norway	✓	○	✓	✓	✓	○	8.6	2
Poland	✓	✓	✓	×	✓	✓	7	3
Portugal	×	✓	○	✓	✓	○	12	2
Republic of Moldova	○	×	×	×	×	×	-	1
Romania	×	✓	✓	×	✓	○	11	2
Russian Federation								1
San Marino								1
Serbia	×	✓	×	×	×	×	-	1
Slovakia	✓	✓	✓	×	○	×	8	2
Slovenia	✓	✓	✓	×	○	✓	12	2
Spain	✓	✓	✓	×	○	×	10	2
Sweden	✓	✓	✓	✓	✓	✓	11	3

Switzerland	✓	✓	✓	×	○	✓	9	2
Tajikistan	×	×	×	×	×	×		1
The former Yugoslav Republic of Macedonia	×	×	×	×	×	×		1
Turkey	✓	✓	✓	○	○	○	18	2
Turkmenistan	×	×	×	×	×	×	-	1
Ukraine	×	×	×	×	×	×		1
United Kingdom	✓	✓	✓	✓	✓	✓	8.7	3
Uzbekistan	○	×	×	×	×	×	-	1

CNI - Current National Initiative	**✓- Fully implemented**
BA - Baseline Assessment	**○ - Partially implemented/Planned**
CA - Consumer Awareness	**× - No action**
L – Labelling	**– E-mail response**
II - Industry Involvement	**1 - No Action**
M&E - Monitoring and Evaluation	**2 - Planned/ Partially implemented**
SI - Salt Intake	**3 - Fully implemented**

Annex B – Figure 1 Map of the Action Plan status