Session I: Current situation and capacity in the South-East Asia Region to report on the global voluntary targets: Salt/sodium intake

Dr Sohel Reza Choudhury, Bangladesh
Excess Dietary Salt Intake and Health

• Numerous studies have found excess dietary salt or sodium intake to be associated with increased risk of high blood pressure

• Worldwide, excess dietary salt intake is responsible for 17%–30% of hypertension

• Authoritative scientific reviews have confirmed the harmful health impact of excess salt consumption and recommended salt reduction
## Selected scientific reviews/reports on salt and health

<table>
<thead>
<tr>
<th>Review / reports</th>
<th>Year</th>
<th>Main recommendation</th>
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<tbody>
<tr>
<td>Scientific Advisory Committee on Nutrition, UK(^\text{10})</td>
<td>2003</td>
<td>Reduce the mean population salt intake to 6 g/day</td>
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<tr>
<td>Diet, Nutrition and the Prevention of Chronic Diseases: report of a Joint WHO/FAO Expert Consultation(^\text{11})</td>
<td>2003</td>
<td>Salt consumption of &lt;5 g/day while ensuring that the salt is iodized</td>
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<tr>
<td>Institute of Medicine (IOM). Dietary Reference Intakes: Water, Potassium, Sodium Chloride, and Sulfate(^\text{12})</td>
<td>2004</td>
<td>Set 3.75 g/day as an adequate intake, and 5.8 g/day as the upper tolerable intake level for most adults</td>
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<tr>
<td>World Health Organization (WHO) Forum on Reducing Salt Intake in Populations(^\text{13})</td>
<td>2006</td>
<td>Salt consumption of &lt;5 g/day</td>
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<tr>
<td>Institute of Medicine (IOM). A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension(^\text{14})</td>
<td>2010</td>
<td>Salt consumption of 5.75 g/day or less</td>
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<tr>
<td>American Heart Association (AHA) Presidential Advisory(^\text{15,16})</td>
<td>2011, 2012</td>
<td>Salt consumption of 3.75 g/day or less</td>
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</tbody>
</table>

Mohan S and Prabhakaran D. Review of Salt and health: Situation in South-East Asia Region, WHO 2012
<table>
<thead>
<tr>
<th>Behavioral risk factor</th>
<th>Indicators</th>
<th>Target</th>
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<tr>
<td>Salt / sodium intake</td>
<td>Mean Population intake of salt (Sodium Chloride) per day in grams in person aged 18 years and older</td>
<td>30% relative reduction in mean population intake of salt / sodium intake</td>
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Methods for Assessing Salt Intake

• Employing the most appropriate method is critical.

• The principal methods of assessing salt intake are by:
  – Dietary recall
  – Estimating salt content of food using food composition tables/databases
  – Estimating household per capita or per adult equivalent salt intake by salt weighing
  – Measuring 24-hour urinary sodium excretion
  – Measuring urinary sodium from spot urine samples
Salt intake in SEAR Countries

• Rich and diverse dietary culture
• Extensive use of salt and spices
• Very limited contemporary data
• Absence of data in several countries
• Most data derived from dietary surveys/recall or household salt weighing methods
• Small, non-representative samples
Bangladesh

- Araihaazar, 2000-02, 11116 aged ≥18 years, 146 mg sodium /day in normotensives (Household salt weighing)
- NHFH& RI (2009), 200 adult, 17 grams /day (Estimated from spot sample)
- NHFH&RI (2012), 200 urban adult 9-11 gm/day (Estimated from 24-hr urine)
- ICDDRB, (2011), 396 rural adult 6.9 gm/day (Estimated from 24-hr urine)

India

- ICMR study 1986-88 (13 states): 13.8 grams /day/person (range 7-26 grams /day/person) (Household salt weighing)
- INTERSALT 1988: 9 and 12 grams /day in Delhi and Ladakh respectively
- Urban Chennai 2007: 8.5 grams /day (Using FFQ)
- Rural Andhra Pradesh 2010: 42.3 grams/day/person (Household salt weighing)
- PHFI studies: Ongoing in Delhi, ~900+ samples/1400 obtained
Indonesia

- Jakarta, 2007, 556 aged ≥55 years 198 mg sodium/day among men & 161 mg sodium/day among women (24 hr dietary recall)
- National household survey 5 g salt /day (Dietary recall)
- 15 grams /day (Indonesian Society of Hypertension)

Myanmar

- Data from the Ministry of Mining showed that daily intake of salt was 8.15 g/day/person, while the Department of Health data showed an intake of 6–8 g/day/person.

Nepal

- Kotyang, Bhadrakali, 1993, 10-13 grams /day (24 hr urine sample)
Sri Lanka
• Urban Ceylon, 1970, 48 adults and 17 children aged ≤12 years, 7 g salt /day Consumption (estimated by collecting a measured amount of the clear salt solution added to dishes)
• 2012, 328 adults, aged 30-59 years 8 g salt /day (24 hr urine sample)
• 2012, 328 adults, aged , 30-59 years, 11.4 g salt /day/person (Household salt weighing)

Thailand
• 2008-09, Adults, 10.8 g salt /day (7-day dietary recall)
Challenges

• Low priority/awareness
• Logistic difficulties in collections, transport, storage
• Costs
• Limited national health surveys
• Paucity of food tables, food composition databases
• Ensuring completeness, given that most salt is added
  – How to account for local/ethnic foods, restaurants foods, foods from street vendors
Suggestions

• UN global monitoring framework makes it imperative to measure salt intake

• Potential integration of salt intake assessments with:
  – National health surveys
  – Demographic surveillance systems (INDEPTH)
  – NCD risk factor surveys (STEPS)

• Scale and scope of assessments could be based on feasibility and resources available

• Assessments should be periodically repeated to monitor changes and inform policy implementation and evaluation

• Joint monitoring with existing iodine monitoring systems could facilitate joint tracking + monitoring at substantially lesser costs
Salt Reduction Initiatives in SEAR Countries: Current Status

• Limited initiatives are in place or being planned
• Bangladesh
  – No specific salt reduction program exist.
• Bhutan
  – Some short term strategies for salt intake reduction are in place
• India
  – There is currently no national policy or strategy on salt reduction
  – Scattered intervention programs are taken by research organizations
• Indonesia
  – a national strategy to prevent hypertension through several approaches such as health education particularly in controlling salt intake are in place.
  – The Government is considering regulating the food industry

• Myanmar
  – National initiatives for salt reduction at early stage of inception

• Nepal
  – no salt reduction strategy
• Sri Lanka
  – The Sri Lanka Ministry of Health started the Salt Reduction Initiative in 2010.
  – This includes development of Regulations and Enforcement of law that will be a stepwise process.

• Thailand
  – Currently the Thai Government is implementing a national NCD prevention campaign that has salt reduction as one of its focus areas
Expert Meeting on
Population Sodium Reduction Strategies
for
Prevention and Control of
Noncommunicable Diseases in the
South-East Asia Region

11–13 December 2012
Target

• Taking into account the proposed global target of 30% relative reduction in the mean population intake of salt/sodium intake by 2025, it was recommended that for the SEAR countries a target to “reduce mean population intake of salt/sodium by 10% over the next five years with the aim of reaching 30% reduction in salt/sodium intake by 2025” should be set.
key features of the Region related to salt consumption and measurement

• In at least three countries of the Region consumption of monosodium glutamate was also identified as an important contributor to sodium intake levels

• Iodine deficiency disorders are a priority in most countries of the Region

• The available evidence points to high population level intake of salt in the Region largely due to consumption of traditional foods rich in salt and discretionary salt added at the table
Priority Strategies

• Population sodium reduction strategies identified were
  – advocacy including raising public awareness through health education campaigns;
  – setting up regulations;
  – setting-based salt reduction interventions;
  – conducting operations research;
  – strengthening monitoring agencies and developing a framework for monitoring compliance by the industry;
  – implementing a consumer friendly food labeling system.
Data need to be collected

• Population sodium intake levels:
  – This is necessary to set a baseline for monitoring progress at the national level as well as to report on the global monitoring targets.

• Main dietary sources of sodium (as from salt or monosodium glutamate, and whether from home cooked or processed foods, etc.)

• Knowledge, attitude and practices (KAP) of the community as well as other stakeholders on salt consumption:
  – This is needed for planning population awareness generation and behaviour change strategies.

• Sodium levels in different food items consumed in the Region:
  – This is needed for estimation of sodium intake by dietary intake methods.
Conclusion

- Countries in the region are consuming higher than recommended levels of salt/sodium
- Limited availability of data should not be a deterrent for initiating salt/sodium reduction programmes
- Countries should start interventions alongside efforts to collect data on population salt/sodium intake
- A regional target of 10% relative reduction in population salt intake over the next five years and successive reductions subsequently with the aim of reaching 30% relative reduction in population salt/sodium intake by 2025 is suggested