Mobilizing the Americas for Dietary Salt Reduction
Increase in Blood Pressure is responsible for 62% of all vascular accidents and 49% of all renal and cardiovascular diseases.
Salt Intake in our Diet

Salt Intake 5000 years ago 1 g/d .......... Now 10 to 12 g/d !!

Why?
(a) Food Preservation
(b) Changes in nociceptive perception

Not required anymore
(a) Refrigeration
(b) Better preservation chemicals

Intake of 10 to 12 g/d – is in good part due to the content of salt in processed or industrialized food.

70 to 80% of the ingested salt is hidden in processed food
Salt Intake and Stroke and Cardiovascular Disease
Meta Analysis of Prospective Studies

Fig 3: Cumulative meta analysis. Evaluation of time trends (year of publication) in relation between habitual sodium intake and risk of stroke or cardiovascular disease

Strazzullo et al. (2009)
Comparison of the Reduction of Salt Intake Vs other Preventive Actions (deaths estimated 2010 to 2019)

Reduction of Salt Intake and Number of Cardiovascular Events Prevented

Reduction of Salt Intake and Associated Costs

As dietary salt consumption increases, so does blood pressure. Typical modern diets provide excessive amounts of salt, from early childhood through adulthood.

Governments, NGOs, Industry, Academia, and Society are justified and encouraged to intervene directly to reduce population-wide salt consumption given that salt additives in food are very common.

PAHO/WHO Regional Expert Group on Cardiovascular Disease Prevention through Dietary Salt Reduction, 2009
Cardiovascular Disease Prevention through Dietary Salt Reduction 2009-11

The Expert Group
Goal:

A gradual and sustained drop in dietary salt intake to reach national targets or the internationally recommended target of less than 5g/day/person by 2020, securing that it is fortified.

**Abbreviated Key Messages from EG Final Report**

Goal: A gradual and sustained drop in dietary salt intake to reach national targets or the internationally recommended target of less than 5g/day/person by 2020.

**Recommendations:**

<table>
<thead>
<tr>
<th>To National Governments</th>
<th>To Non-Governmental Organizations</th>
<th>To the Food Industry</th>
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<tbody>
<tr>
<td>Reduce exposure</td>
<td>Build capacities</td>
<td>Be transparent</td>
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<tr>
<td><strong>Strengthen surveillance</strong></td>
<td>Standardize messages</td>
<td>Set targets</td>
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<td>Adopt timelines</td>
<td>Advocate transparency</td>
<td>Supply globally</td>
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<tr>
<td>Set targets</td>
<td>Monitor industry</td>
<td>Transfer technology</td>
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<tr>
<td>Regulate</td>
<td>Advocate healthy procurement</td>
<td>Communicate responsibly</td>
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<tr>
<td>Institute advocacy</td>
<td>Advocate labeling</td>
<td>Clarify labeling</td>
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<tr>
<td>Require reporting</td>
<td>Engage with Government</td>
<td>Supply information</td>
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<tr>
<td>Clarify labeling</td>
<td>Engage with media</td>
<td>Protect children</td>
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<tr>
<td>Communicate effectively</td>
<td>Protect children</td>
<td>Honor commitments</td>
</tr>
<tr>
<td>Protect children</td>
<td>Engage internationally</td>
<td>Conduct research</td>
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<tr>
<td>Standardize procurement</td>
<td>Monitor iodine</td>
<td>Engage with governments</td>
</tr>
<tr>
<td>Disseminate success</td>
<td>Monitor iodine</td>
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- Engage internationally
A REVIEW OF METHODS TO DETERMINE THE MAIN SOURCES OF SALT IN THE DIET

Prepared by:
WHO/PAHO Regional Expert Group for Cardiovascular Disease Prevention through Population-wide Dietary Salt Reduction
Special Sub-group for Research and Surveillance

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Assessments of salt intake:

- **Barbados**: Health of a Nation study includes 24h urine assessment
- **Mexico**: SALMEX study: cohort of 1000 workers: 24 h urine (Na, K, iodine)
- **USA, NY**: 24 h urine (Na, K)
- **Canada**: several provinces 24 h urine
- **Argentina**: sub sample of 24h urine
- **Chile**: National Health study (spot urine)
- **Brazil**: Household budget study and multiple interactions and interventions with industry
Salt Intake (24 h Urine) Vs Individual Perception of Salt Intake

Low < 4gr
Adequate 4 – 6 gr
High >6 – 9 gr
Very High >9 gr

How much Salt do you think you eat?
Salt Intake by 24 U Na
Salt Intake (Measured by 24 hr Urine Collection) vs Estimated (72 hour food intake recall)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Measured (g/day)</td>
<td>9.43</td>
<td>10.77</td>
<td>8.00</td>
</tr>
<tr>
<td>Salt Estimated (g/day)</td>
<td>6.73</td>
<td>7.83</td>
<td>6.11</td>
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</table>

p < 0.001

SALMEX COHORT n=1009
# Iodine Intake in SALMEX Cohort

<table>
<thead>
<tr>
<th>UI</th>
<th>Iodine intake</th>
<th>Median UIC (µg/L) (concentration)</th>
<th>Median UIE (µg/d) Excretion</th>
<th>Women N= 463 (64.1%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>Insufficient: Severe ID</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>20-49</td>
<td>Insufficient: Moderate ID</td>
<td>3</td>
<td>1</td>
<td>1.6%</td>
</tr>
<tr>
<td>50-99</td>
<td>Insufficient: Mild ID</td>
<td>83</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>100-199</td>
<td>Adequate: Optimal</td>
<td>328</td>
<td>169</td>
<td>132</td>
</tr>
<tr>
<td>200-299</td>
<td>More than adequate</td>
<td>181</td>
<td>286</td>
<td>196</td>
</tr>
<tr>
<td>&gt; 300</td>
<td>Excessive</td>
<td>126</td>
<td>255</td>
<td>125</td>
</tr>
<tr>
<td>&gt;150</td>
<td>Recommended</td>
<td>450 (62.3%)</td>
<td>652 (90.3%)</td>
<td>408</td>
</tr>
</tbody>
</table>

ID: iodine deficiency
Purpose of this Workshop

To discuss and shape a consortium of interested parties to support the Regional Initiative of Cardiovascular prevention through salt reduction and to define next steps.
Mobilizing the Americas for Dietary Salt Reduction

**Aims of the Proposal:**

- To support the capacity building of public health leaders in LMIC in Latin America and the Caribbean to conduct research towards the design of national policies that engage multiple sectors in reducing population-wide the overconsumption of salt with final effect on the levels of blood pressure in the population.
- For countries that have already launched initiatives and show progress, the proposal intends to fill knowledge gaps to strengthen the arguments for action and help identify next steps.
FOUR Components of the Proposal

- All are knowledge transfer initiatives intended to disseminate the tools and resources for applied research that were developed either during Phase I of the PAHO initiative (Cardiovascular Disease Prevention through Population-wide Dietary Salt Reduction 2009 to 2011) or those that are otherwise available and require resource inputs for their uptake in LMIC.
1. INTERSALT II

Specific for the Americas:

Determining baselines of population level salt intake, levels of blood pressure and other associated risks in 10 countries (15 sites) across 4 sub-regions in Latin America and the Caribbean, using the gold std. of 24-h urinary Na excretion (i.e. adapting the research design from the first INTERSALT study conducted in the mid 1980s and applying the Protocol for Determining Population Level Na Intake in 24-h Urine Samples developed in Phase I and tested in the SALMEX study in Mexico)
2. Strengthening food composition databases and creating processed food product-specific nutrition databases

- Updating the LATINFOODS and CARICOMFOODS databases to determine the main current sources of salt in the diet (the first database most relevant to Latin American countries and the second for the English-speaking Caribbean) with the purpose to facilitate nutrition labeling.

- Creating processed food product-specific nutrition databases in selected countries where Nutrition Facts Panels are required on packaged foods, as a mechanism for monitoring changes in sodium levels in processed foods.
3. Awareness and communication through Social Marketing

- Conducting knowledge, attitude, and behavior (KAB) surveys in selected countries and segments of population, decision makers, and food industry.

- Convening workshops to apply national KAB results in the design of national social marketing campaigns that aim to change consumer behavior such that there is demand for reduced salt in the food supply and for more personal control over the salt added to food; decision makers to support policy instruments that will facilitate access to less salty food and industry to respond by supplying the market with products demanded by consumers.
4 Dietary salt health economic analysis for policy development

In four countries using the Coronary Heart Disease (CHD) Policy Model with CHD and stroke outcome projections, developed by the University of California at San Francisco and building on experiences with the Policy Model in Argentina and the United States.
Mobilizing the Americas for Dietary Salt Reduction

Remember the Best buy:

- Reducing tobacco use by 20%
- Lowering salt intake by 15%
- Increase coverage of patients at high risk of cardiovascular disease with simple drug regimen by 60%

$3.4\ M$ deaths prevented in LAC in the next 10 years

The tobacco and salt intake interventions would be cost than US $ 0.40 per person/year in low and middle income countries, and US$ 0.50-1.00 in upper middle-income countries.
PAHO Technical Advisory Group

• EG ended in 2011
• TAG started January 2012

Main objective:
• Support implementation of Initiative in the Americas using existing EG products and supporting multi-country initiatives
Mobilizing the Americas for Dietary Salt Reduction