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Jamaica Salt Consumption, Knowledge, Attitudes and Practices (Salt-KAP) Study

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JAMAICA SALT CONSUMPTION, KNOWLEDGE, ATTITUDES AND PRACTICES (SALT-KAP) STUDY

Collaborative Research Project between



The Caribbean Institute for Health Research, UWI



The Ministry of Health and Wellness, Jamaica



Funded by The National Health Fund

Jamaica SALT-KAP Study

Overall Aim:

To obtain baseline data on salt consumption in Jamaica, salt content in restaurant foods, and evaluate knowledge, attitudes and practices of Jamaicans regarding salt consumption



Why is this
important?

SALT - Introduction

- Salt (sodium chloride) is a major component of the food supply in most countries
- It is commonly used to flavour food, and as a binder, stabilizer, or food preservative
- Humans need about 500 mg of sodium to carry out normal body functions such as water balance and nerve conduction



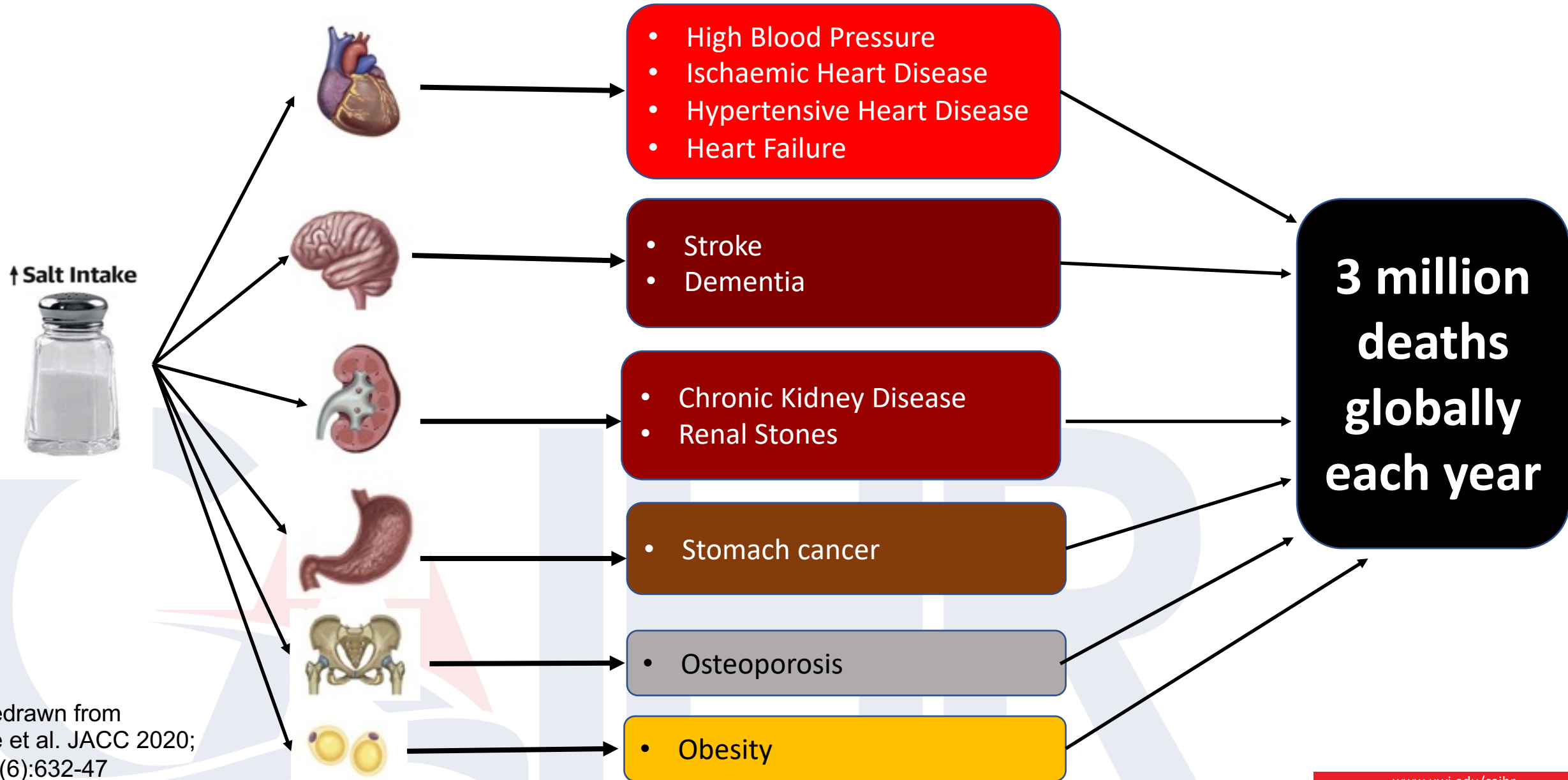
Sources of sodium in the diet

The main source of sodium in the diet is table salt (**sodium chloride**);

Other sources:
monosodium glutamate (MSG), and **sodium bicarbonate** (baking soda)

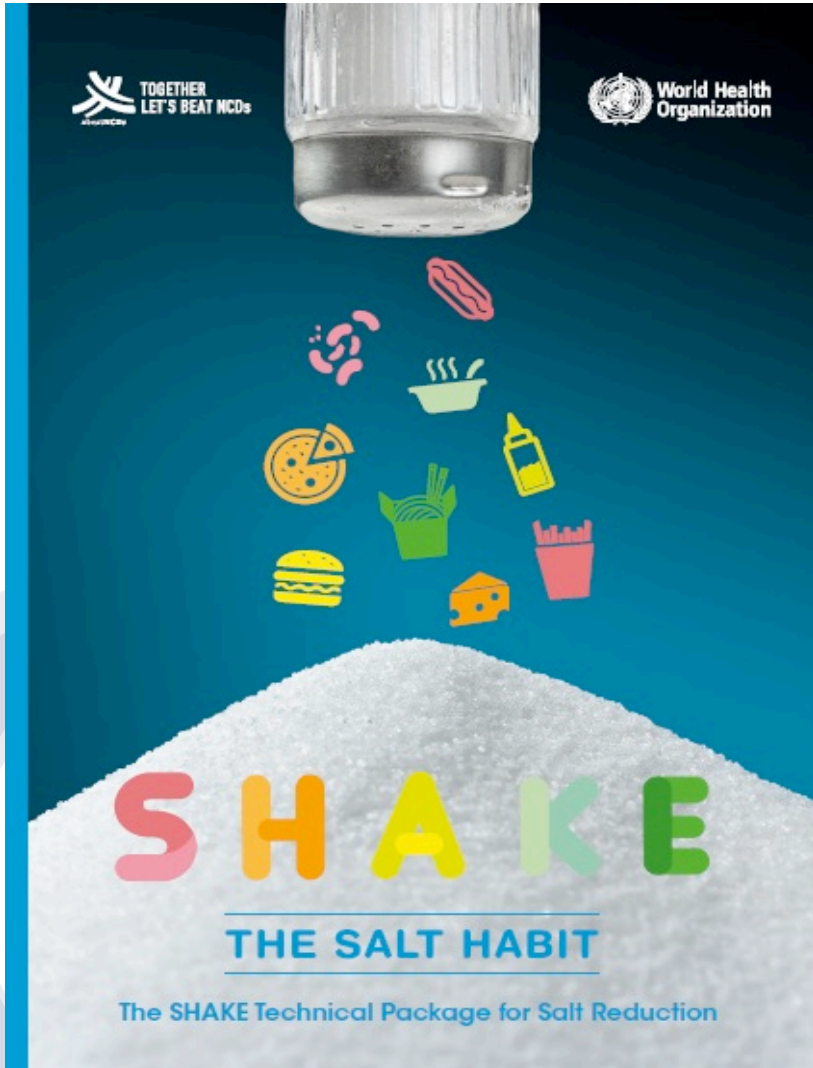
Most people consume **about 9–12 grams of salt per day**
1.5 – 2 times the recommended maximum level of **intake**

High salt intake has multiple adverse health outcomes



Redrawn from
He et al. JACC 2020;
75(6):632-47

WHO SHAKE – Technical Package for Salt Reduction



In 2016 WHO published the **SHAKE** package, which serves as a guideline designed to assist Member States with the development, implementation and monitoring of salt reduction strategies.

Recommended salt consumption
<5 g per day (2000 mg of Na)

Countries should target 30% relative reduction in mean population intake of salt/sodium by 2025

WHO SHAKE SALT INTERVENTION PACKAGE

1. SURVEILLANCE

MEASURE AND MONITOR SALT USE

Intervention S1: Measure and monitor population salt consumption patterns

Intervention S2: Measure and monitor the sodium content of food

Intervention S3: Monitor and evaluate the impact of the salt reduction programme

2. HARNESS INDUSTRY

PROMOTE REFORMULATION OF FOODS AND MEALS TO CONTAIN LESS SALT

Intervention H1: Set target levels for the amount of salt in foods and meals and implement strategies to promote reformulation

3. ADOPT STANDARDS FOR LABELLING AND MARKETING

IMPLEMENT STANDARDS FOR EFFECTIVE AND ACCURATE LABELLING AND MARKETING OF FOOD

Intervention A1: Adopt interpretive front-of-pack nutrition labelling systems

Intervention A2: Implement strategies to combat the misleading marketing of foods that are high in salt

4. KNOWLEDGE

EDUCATE AND COMMUNICATE TO EMPOWER INDIVIDUALS TO EAT LESS SALT

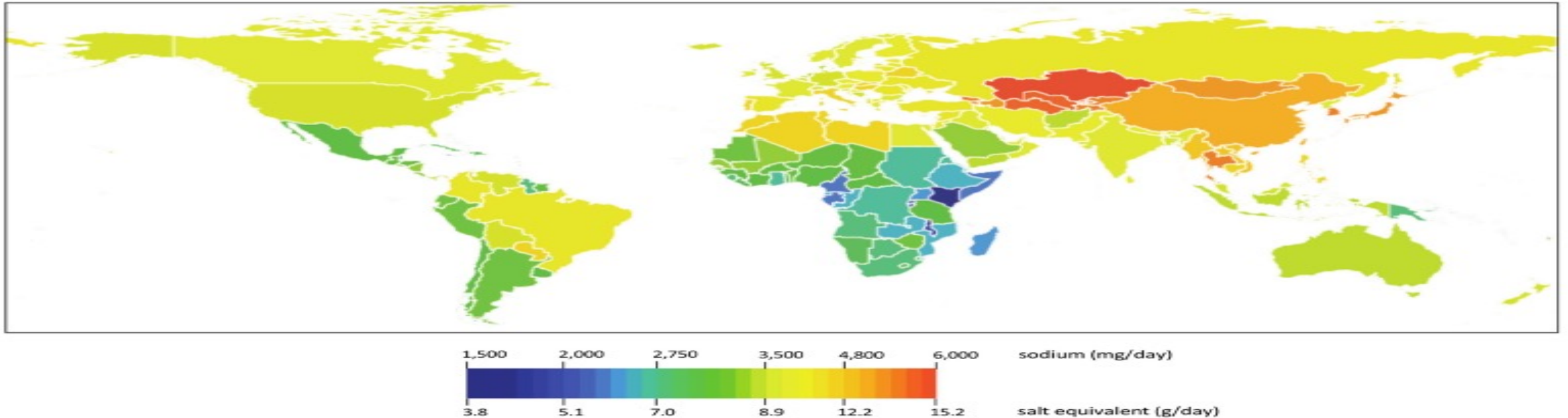
Intervention K1: Implement integrated education and communication strategies to raise awareness about the health risks and dietary sources of salt and ultimately change behaviour

5. ENVIRONMENT

SUPPORT SETTINGS TO PROMOTE HEALTHY EATING

Intervention E1: Implement multicomponent salt reduction strategies in community settings including schools, workplaces and hospitals

Global Sodium Consumption



- In 2010, global **mean sodium intake was 3.95 g/day**;
- Intake in men was ~10% higher than in women
- Intakes were highest in East Asia, Central Asia and Eastern Europe
- Intakes were lowest in sub-Saharan Africa and Latin America

Salt consumption in Jamaica

- Limited published data on salt consumption in Jamaica
- The Spanish Cohort Study reported estimated sodium excretion of 3.3 g/24 hour in the 1990s
- In SORT Trial baseline sodium excretion was 3.4 g/day among sample of 56 patients
- No recent or national estimates are available prior to the current study

SORT Trial: Forrester et al. Journal of Human Hypertension (2005) 19, 55–60. doi:10.1038/sj.jhh.1001782

SORT = Sodium Reduction Trial

Jamaica SALT-KAP - Objectives

1. To estimate dietary sodium consumption among Jamaicans using spot urinary sodium analyses.
2. To evaluate the sodium content in commonly consumed foods sold in local restaurants.
3. To conduct a baseline survey on current knowledge, attitudes, and practices regarding salt intake in Jamaica, and estimate current levels of salt consumption.
4. To evaluate the accuracy of spot urine sodium as a measure of dietary sodium intake in the Jamaican setting by comparing estimates to 24-hour urinary sodium excretion.

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Project divided into four
components

Component 1: Spot Urine Sodium Analyses

- Analyzed data **1009 spot urine sodium samples** obtained from **JHLS III**.
- Estimated **mean 24-hour dietary sodium** consumption and the **proportion of participants with high dietary sodium** consumption using PAHO formula
- Estimate how dietary sodium consumption vary by sex, sociodemographic factors, and participant characteristics

Component 1: Spot Urine Sodium Analyses

- Preliminary analyses now completed
- Findings submitted to CARPHA Conference – full details to be presented in June
- Preview: Mean sodium excretion levels much higher than recommended daily intake; low mean potassium intake
- Most Jamaicans classified as having high sodium intake and low potassium intake

Component 2: Salt content of food sold in restaurants

- **Creating a database of restaurants**, including restaurant chains (≥ 3 restaurants locally) and individual restaurants.
- Will contact the restaurants' management to **obtain information on meal items sold in each establishment** and available **nutrient profiles, recipes, and ingredient listings**.
- Will describe **food preparation practices**, **estimate mean sodium content** per meal and the **proportion of foods with high salt content**.

Component 3: Survey of Knowledge, Attitudes and Practices Regarding Salt Intake and Estimation of Salt Consumption Levels

- **Nationally representative sample** of approximately **1200** participants
- Administer a **questionnaire** to evaluate **knowledge** about salt intake and health, **attitudes** with regards to salt intake and low salt diet, and current **practices** of salt intake.
- We will also measure weight, height and blood pressure and collect **spot urine sample to measure urine sodium excretion.**

Component 4: Validation Study Using 24-hour Urinary Sodium

- Sub-sample of **120 persons** from national survey
- Will do a **24-hour urine collection** to measure 24-hour urinary sodium in addition to spot urine sodium
- **Compare estimates** 24-hour urine sodium from spot urine sample to that obtained from actual 24-hour urine collection and **estimate levels of agreement**

Components 3 and 4 update

- Completed training for field staff
- Completed mapping of most Kingston EDs
- Recruiting first participants this week
- To complete data collection in 6 – 9 months

Jamaica SALT-KAP - Implications

- Baseline study to fulfil the interventions S1 and S2 of the WHO SHAKE package
- Serve as a key step in the development of a national salt reduction programme
- Will inform interventions to promote individual and population level sodium reduction strategies in seeking to achieve the national target of a 30% reduction in salt consumption by 2025.
- Initial results shared with MOHW – preparing policy brief

The Team

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