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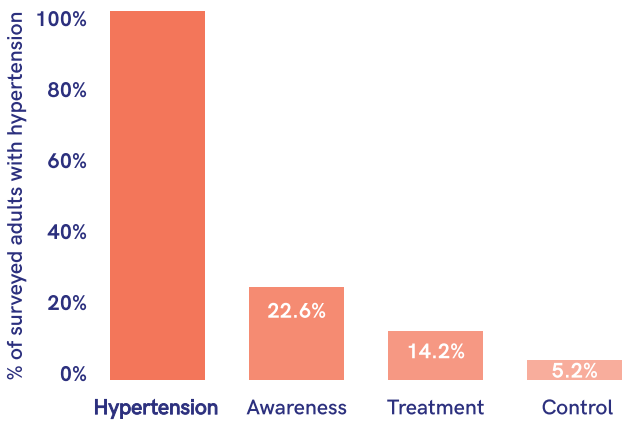
AN INITIATIVE OF VITAL STRATEGIES

Survey on salt consumption knowledge, attitudes and practices and blood pressure in Ethiopia

ETHIOPIA HYPERTENSION PREVENTION AND CONTROL INITIATIVE

Noncommunicable diseases (NCDs) are on the rise in Ethiopia, accounting for 63% of under 50 mortality.[1] One of the major risk factors for cardiovascular disease, hypertension currently affects 16% of the those 15 to 65.[2] High salt intake is a main cause of hypertension. In Ethiopia, the average salt intake is 8.3 gm/day, well above the World Health Organization (WHO) recommended maxiumum of <5 gm/day.[2] Reducing salt consumption is among the most cost-effective interventions on WHO's list of "best-buy" interventions for the prevention and control of NCDs.[3, 4]

Only 5% of adults have hypertension under control



Study Objective

This study assessed hypertension prevalence, treatment and control and knowledge, attitudes and practices related to salt consumption in selected sites in Ethiopia. The findings will serve as a baseline for the Hypertension Prevention and Control Initiative, supporting the evaluation of hypertension treatment programme as well as a mass media campaign on sodium reduction and community-based education activities.

Methodology

A population-based multistage cross-sectional survey was conducted in 62 selected primary health care catchment areas. Each of these areas are participating in a pilot hypertension prevention and control demonstration program which is being implemented in four regions and two city administrations in Ethiopia, namely Addis Ababa, Amhara, Dire Dawa, Oromia, Sidama, and Tigrai. Planned data collection in the Somali region was not completed due to increased risk of COVID-19 community transmission in the region at the time of data collection. A total of 2,276 randomly selected adults between the ages of 18 and 69 years participated in the survey. The data collected was representative of the population aged 18 to 69 years located only in the targeted primary health care catchment areas of the country. It is not nationally representative and should not be assumed to represent Ethiopia as a whole.

Key Results and Potential Applications

Among both sexes, 10.0% had hypertension; 11.2% among men and 8.9% among women. Among people with hypertension, only 22.6% had been previously diagnosed with hypertension, 14.2% were being treated, and 5.2% had their hypertension under control.

Table 1: Blood Pressure Findings

Blood pressure & treatment adherence	Male % (incl. 95% CI)	Female % (incl. 95% CI)	Both % (incl. 95% CI)
Hypertension prevalence*	11.2 (7.8-14.7)	8.9 (6.5-11.3)	10.0 (7.7-12.1)
Among people with hypertension			
Aware of hypertension diagnosis**	17.5 (7.4-26.6)	27.2 (15.5-38.8)	22.6 (14.5-30.4)
Treated hypertension†	12.5 (3.3-21.7)	15.8 (5.9-25.7)	14.2 (8.0-20.4)
Controlled hypertension‡	2.8 (0-6.9)	7.5 (2.4-12.7)	5.2 (1.8-8.6)

Data are % (95 percent confidence interval)

*SBP >=140 mmHg; DBP >=90 mm Hg; or self-report of taking antihypertensive medication within the past two weeks

**Self-report that a health care provider informed the participant of hypertension diagnosis

†Self-report of taking antihypertensive medication within the past two weeks

‡Hypertension diagnosis and SBP < 140 mmHg and DBP <90 mm Hg

Salt Consumption Knowledge, Attitudes, and Practices: *See Table 2 for results*

KNOWLEDGE AND ATTITUDES

- **94% of participants** believed that salt reduction is somewhat or very important.
- **88%** believed that high salt intake causes ill health.
- **Less than 2%** knew the recommended amount of salt per day.
- **79%** thought they consumed just the right amount of salt or too little salt.
- **54%** reported knowing how to make their food taste appealing if salt is reduced.
- **90%** believed they can convince family members about the health benefits of eating food with reduced salt.

Overall, participants had a favorable attitude toward salt reduction, and 90% believed they can easily convince family members about the health benefits of eating food with reduced salt. Survey results suggest that targeting home cooks by providing specific tips and strategies during cooking are important in reaching the whole family and should be included in the upcoming campaign and community initiatives.

SALT CONSUMPTION PRACTICES

Most salt comes from meals cooked primarily by women within the home.

- **88% of participants** add salt during cooking and 56% add salty seasonings during cooking.
- **49%** measure the quantity of salt before adding to their food.
- **Only 5.5%** often or always eat in restaurants and **only 3%** report frequently eating packaged foods high in salt.

A majority of participants report taking some action on a regular basis to control their salt intake.

- **88.2%** use less salt during cooking or preparing food.
- **72.9%** limit the consumption of processed foods.
- **77.9%** limit the amount of salt added to food as they eat it or right before eating.
- **Only 38.3%** reported using spices instead of salt when cooking or preparing foods

Despite a majority of people believing that they consume just the right amount of salt (53.3%) or even too little (25.6%), the findings from this survey are an encouraging sign that people have a positive attitude towards salt reduction and the necessary motivation to reduce their own salt intake. The survey identified key areas of intervention for salt reduction initiatives. First, targeting the women or primary cook in the household will likely have the greatest impact. Second, although many are aware of the dangers of high

salt intake and may even be taking some steps to limit their intake, they need more knowledge on specific strategies to reduce salt in their meals. These strategies should address the major sources of salt such as the powders added during cooking.

Table 2: Results from the Knowledge, Attitudes, and Practices Survey

Results for adults age 18-69 years	Male % (incl. 95% CI)	Female % (incl. 95% CI)	Both % (incl. 95% CI)
Behavior & practices*			
Add salt when cooking	54.4 (42.3-66.6)	55.4 (43.7-67.1)	55.0 (43.6-66.4)
Add salty seasonings during cooking	49.9 (41.7-58.2)	61.0 (52.6-69.3)	56.2 (48.4-64.1)
Measure amount of salt added during cooking	2.8 (0-6.9)	7.5 (2.4-12.7)	5.2 (1.8-8.6)
Eat processed food high in salt	3.8 (2.3-5.3)	2.2 (1.4-3.1)	2.9 (2.0-3.8)
Eat self-prepared home-cooked food	23.6 (17.3-29.8)	84.2 (80.2-88.1)	58.1 (53.9-62.2)
Eat in restaurants	7.3 (3.5-11.1)	1.9 (1.1-2.8)	4.3 (2.5-6.0)
Attitudes			
How much salt or salty sauce do you think you consume?			
Too much	22.7 (19.3-26.1)	19.9 (16.5-23.3)	21.1 (18.2-24.0)
Just the right amount	52.6 (47.4-57.8)	53.8 (48.6-59.0)	53.3 (48.7-57.9)
Too little	24.7 (20.0-29.4)	26.2 (22.0-30.5)	25.6 (21.8-29.4)
How important is lowering the salt in your diet?			
Very important	51.0 (44.2-57.8)	55.4 (49.3-61.5)	53.5 (47.6-59.4)
Somewhat important	41.6 (35.7-47.6)	39.3 (33.9-44.6)	40.3 (35.3-45.3)
Not important at all	5.6 (2.6-8.7)	3.0 (1.6-4.4)	4.1 (2.4-5.9)
Do you believe high salt intake causes ill-health?			
Yes	88.6 (85.1-92.1)	88.9 (84.7-93.2)	88.6 (85.1-92.1)
Making efforts to reduce salt consumption is worthwhile for the health benefits			
Disagree	4.5 (2.6-6.5)	4.5 (3.2-5.8)	4.5 (3.2-5.8)
Agree	70.8 (65.8-75.8)	72.1 (67.7-76.5)	71.5 (67.9-75.2)
Strongly Agree	21.2 (16.7-25.6)	20 (15.6-24.4)	20.5 (16.9-24.1)

What foods or spices are the major sources of salt?			
Pepper Powder	66.6 (59.4-73.7)	59.7 (51.3-68.2)	62.7 (55.2-70.1)
Chili Powder	23.2 (14.4-31.9)	32.0 (22.7-41.2)	28.2 (19.4-36.9)
Dry Meat	1.6 (0.6-2.7)	1.6 (0.3-2.8)	1.6 (0.5-2.7)
I don't know how to make my food taste appealing if salt is reduced			
Disagree	33.3 (26.7-39.9)	38.4 (32.3-44.6)	36.2 (30.3-42.2)
Agree	49.7 (44.4-55)	46.1 (43-49.1)	47.6 (44.2-51.1)
Strongly Agree	6.1 (2.2-10)	6.9 (2.9-10.9)	6.6 (3-10.2)
Knowledge			
What is the right amount of salt per person per day? *(number of participants who claimed to know the right amount of salt per day and correctly selected the recommended amount of 5g/day)*	0.8 (0.1-1.5)	2.2 (0.9-3.5)	1.6 (0.8-2.4)

*Percentage of respondents that reported engaging in the behavior always or often.

Endnotes

1 The Ethiopia NCDI Commission Report [Internet]. The Lancet NCDI Poverty Commission. [cited 2020 May 23]. Available from: http://www.ncdipoverty.org/ethiopia-report
2 EPHI,MOH,WHO, Ethiopia steps report on risk factors for non-communicable disease and prevalence of selected NCDs.
3 Vladislav Dombrovskiy; Asmamaw Workneh; Fassil Shiferaw; Roy Small; Nicholas Bantalava. Prevention and control of noncommunicable diseases in Ethiopia,The case for investment. Addis Ababa: UNDP,UNIATF,MOH,WHO; 2019 Sep.
4 World Health Organization. Tackling NCDs:'best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. World Health Organization; 2017.