



## SALT INTAKE AND BLOOD PRESSURE IN ISRAEL

Lopato Egor, *Nicolae Testemitanu* Chair of Social Medicine and Management, Nicolae Testemitanu SUMPh

### Introduction

Hypertension is responsible for 12.8% of the total death worldwide, and high salt intake is one of the main risk factors for hypertension. Decreasing in salt intake can contribute to a significant reduction in hypertension, and to a reduction in the rate of stroke and cardiovascular morbidity and mortality. The global mean sodium intake was estimated to be 3.95 g/day, twice or higher than the recommended levels (2000 mg/day).

### Keywords

Salt intake, blood pressure, Israel.

### Purpose

To summarize the existing data and publications on salt intake and blood pressure in Israeli population and to describe the current situation.

### Material and methods

Electronic databases PubMed and Google Scholar and the Ministry of Health of Israel website were searched for articles and data reporting on salt intake and blood pressure in Israel. Search was done using key words and was limited to the information published in English and Hebrew.

### Results

Israel has excessive consumption of salt with a mean salt intake of 9.76 g/day in adults. The average intake of salt was higher in men (12.04 g/day) than women (9.3 g/day) ( $p < 0.001$ ).

Major sources of sodium in the diet included industrially processed foods such as bread, processed meat and fish products, cheese, ready-to-eat foods and snacks. Sodium density of foods was linked to hypertension.

Higher sodium intake was found in adolescents – 12.0 g/day. Sodium intake is significantly associated with blood pressure values in adolescents. Typical modern diets provide excessive amounts of salt, from early childhood through adulthood. Sodium intake from snacks, popular junk food particularly among young people, could reach almost half of the average sodium consumption.

63.7% of the Israeli school age students believe that a high consumption of salty foods can be harmful to their health: 62.8% of boys and 67.0% of girls. Meanwhile the intake of sodium was twice as higher than the recommended level among school age groups, particularly in boys and Arab students.

One fifth of population reported being diagnosed by a physician with raised blood pressure with no difference between men and women in 2014. There was an overall increase in the prevalence of reported physician-diagnosed raised blood pressure by 34% between 2004 and 2014, particularly in men (both Jewish and Arab) and Arab women – by almost 50% (Fig. 1).

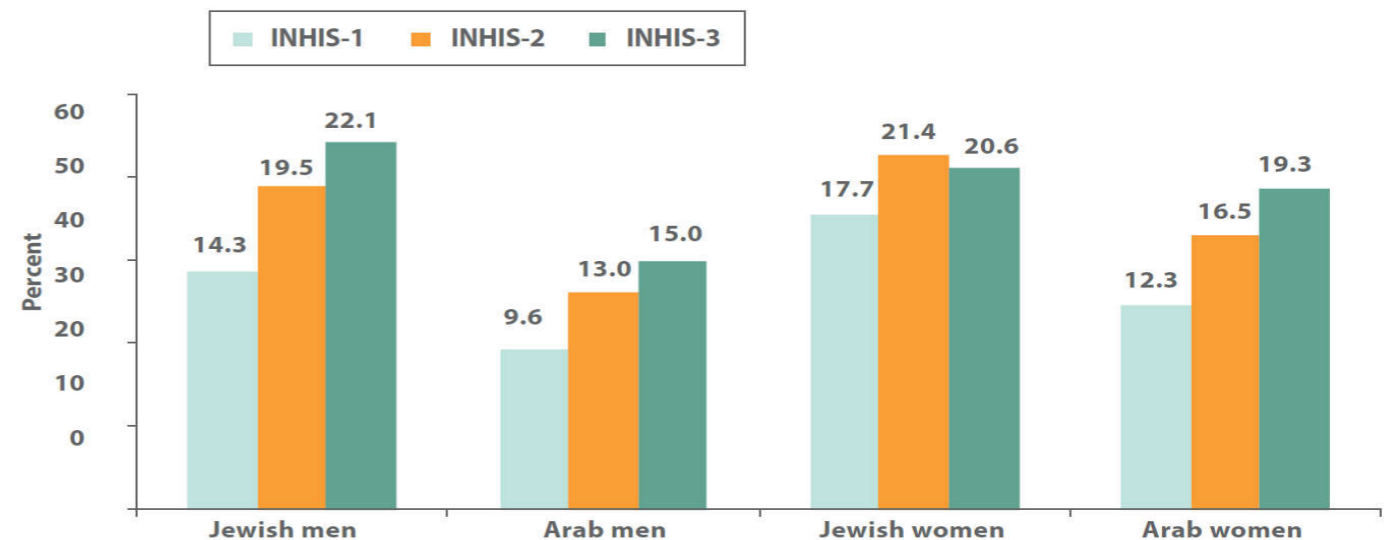


Fig. 1. Trends in physician-diagnosed hypertension in Israel, by gender and population group. INHIS-1 (2003-2004), INHIS-2 (2007-2010), INHIS-3 (2014-2015) [ICDC]

Salt reduction initiatives and hypertension prevention and control measures were implemented. In 2013 the Health Ministry approved a national program to reduce sodium consumption. The program aimed to gradually lower the amounts of salt added to processed foods in Israel, through cooperation with the industry. Recommendations to the population included reading labels and preferring foods with less sodium, or using alternative seasoning including fresh and dried herbs. After five years of implementation, sodium consumption remained almost unchanged. Blood pressure early detection and control is effectively implemented through primary health care providing. High risk subjects underwent an intensive cardiovascular risk factor control program, including hypertension control and monitoring. Health education and information on appropriate management of hypertension are provided to hypertensive patients.

### Conclusions

Salt intake was more than twice as higher than the recommended level in adults and adolescents. Introducing mandatory reformulation of the staple foods in the diet and awareness increasing and implementation of a healthy food environment could be effective in reducing salt intake and preventing hypertension.