

## INTRODUCTION

The salt is considered one of the major nutrients and cooking ingredients but high salt intake is associated with many health risks. High-salt diet is a well-established risk factor of hypertension, and some studies reported that levels of sodium consumption in Saudi population are exceeding the current recommended limits. Hypertension is considered a major risk factor for cardiovascular diseases. In Saudi Arabia, the estimated prevalence of hypertension was 26.1% and the incidence of stroke in Riyadh city alone was estimated to be 0.03%, while the prevalence of CKD was 5.7%. Reducing salt intake was shown to have a positive effect on stroke-related, and cardiovascular-related mortality. It can also lower the incidence of hypertension. Knowledge and attitude of the population are thought to influence salt intake, which are a modifiable factor that could be changed. The assessment of knowledge, attitudes and behavior of a population is a crucial component in planning and developing effective interventions that would promote better outcomes of cardiovascular diseases.

## OBJECTIVES

- To determine the knowledge, attitudes and practices related to salt use among Saudi consumers living in Riyadh city

## METHODOLOGY

We conducted a cross-sectional study. Data collection was done at malls of Riyadh city from northern east, northern west, southern east and southern west zones. Involving Saudi participants > 18 years age only. Period of data collection was six months (August 2018-January 2019). The questionnaire was interviewer administered by trained interviewers.

## RESULTS

Demographic characteristics are shown in table1.

### Knowledge:

66.5% of participant thought that there is a maximum daily amount of salt intake recommended by experts for adults, however only 18.3% knew the exact amount.

84% and 73.1% of the sample knew that salt added during cooking and processed food were the main sources of salt in Saudi diet respectively. 25% used the claims for low or reduced salt on the pack to assess the amount of salt in a product, 25% used the ingredient list to know the amount of salt in a product, only 19.2% checked the sodium level in the nutrition information panel to know the amount of salt in a product.

94.9% believed that high salt intake is associated with health problems. 39.3% thought that obesity has a high correlation with high salt intake while 21% believed that there is no correlation and 19.7% thought it had a weak correlation. 27.7% thought that osteoporosis has no correlation with high salt intake, while 23.2% thought there is a weak correlation with high salt intake and 20.3% thought there is a high correlation. 26.4% thought that there is a no correlation between stomach ca and high salt intake, while 14.9% thought there is a weak correlation and 13.5% thought there is a high correlation. 53.4% thought that high salt intake is highly correlated with kidney stones, while 15.2% thought it is weakly correlated and 10.6% thought it is not correlated. 38.2% thought that high salt intake is highly correlated with high cholesterol level, while 24.1% thought it is not correlated and 16.6% thought it is weakly correlated. 84.9% thought high salt intake is highly correlated with hypertension, while 4.9% thought it is weakly correlated and only 1.4% thought it is not correlated

Demographic characteristics	Count	%
<b>gender</b>		
Female	441	56.8
Male	336	43.2
<b>Residency</b>		
Central Province	94	12.1
Eastern Province	215	27.7
Northern Province	132	17.0
Southern Province	144	18.5
Western Province	192	24.7
<b>Social status</b>		
Divorced	21	2.7
Married	305	39.3
Single	441	56.8
Widow	10	1.3
<b>Education</b>		
can read and write	10	1.3
completed school education till high school	277	35.6
completed university or above (high education)	377	48.5
didn't complete school education	57	7.3
diploma degree	49	6.3
illiteracy	7	.9
<b>occupation</b>		
Busniess	5	.6
don't work	237	30.5
employee in a private and public sectors	1	.1
employee in a private sector	406	52.3
employee in a public sector	117	15.1
intern	2	.3
Retired	9	1.2

TABLE1. demographic characteristics

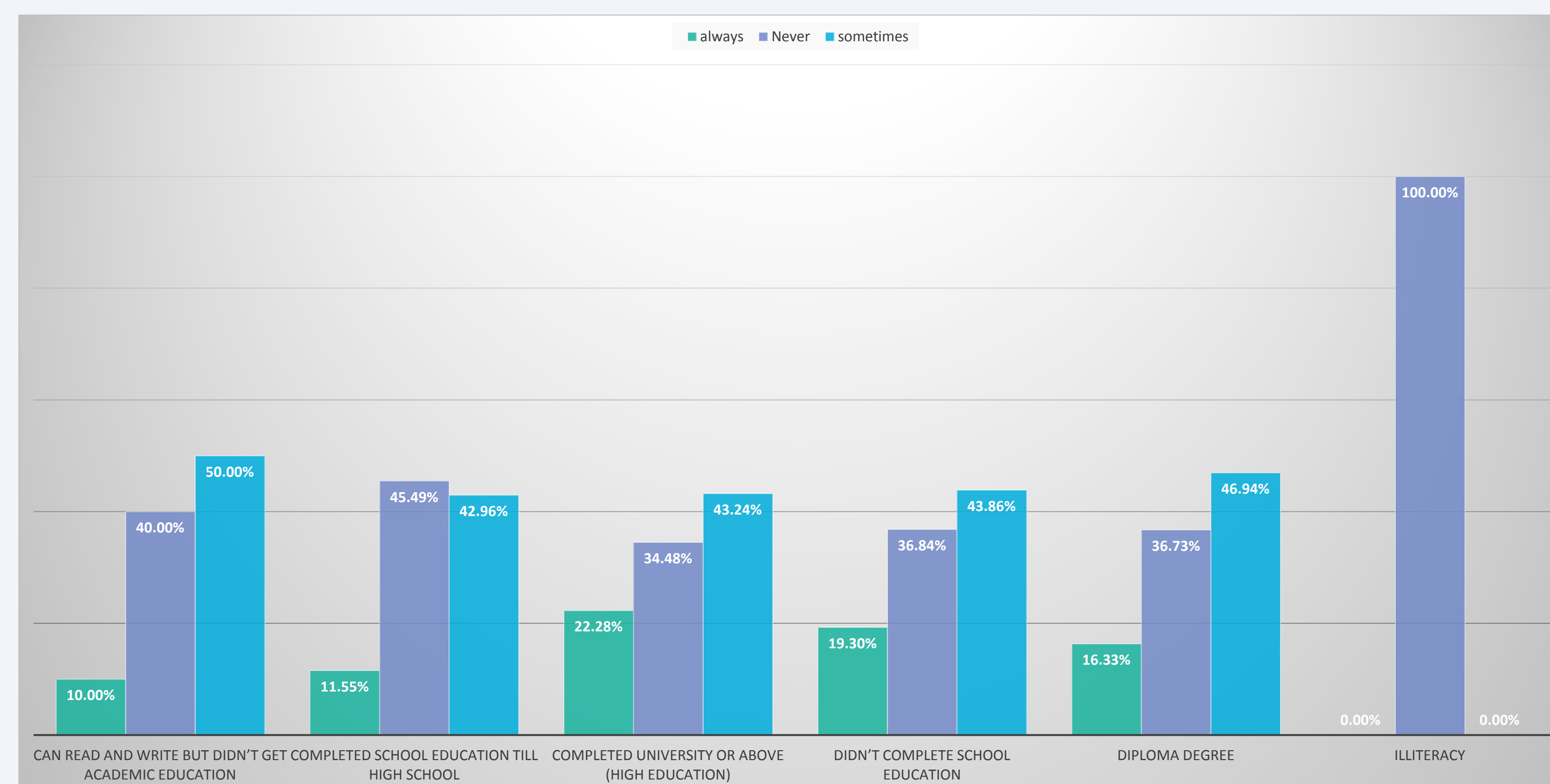


FIGURE1. percentage of how often people read food labels relative to their level of education

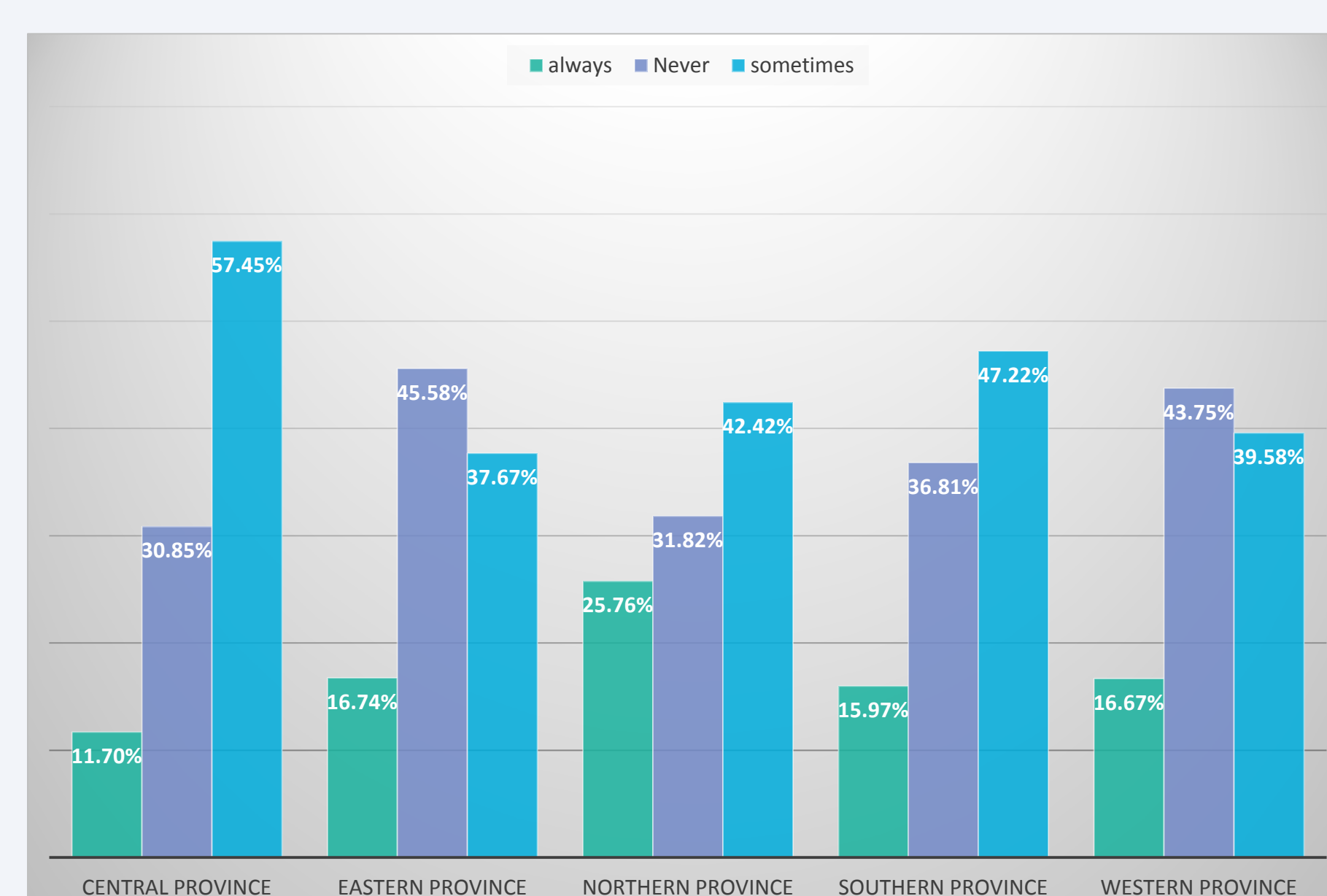


FIGURE2. percentage of how often people read food labels relative to the place of residency

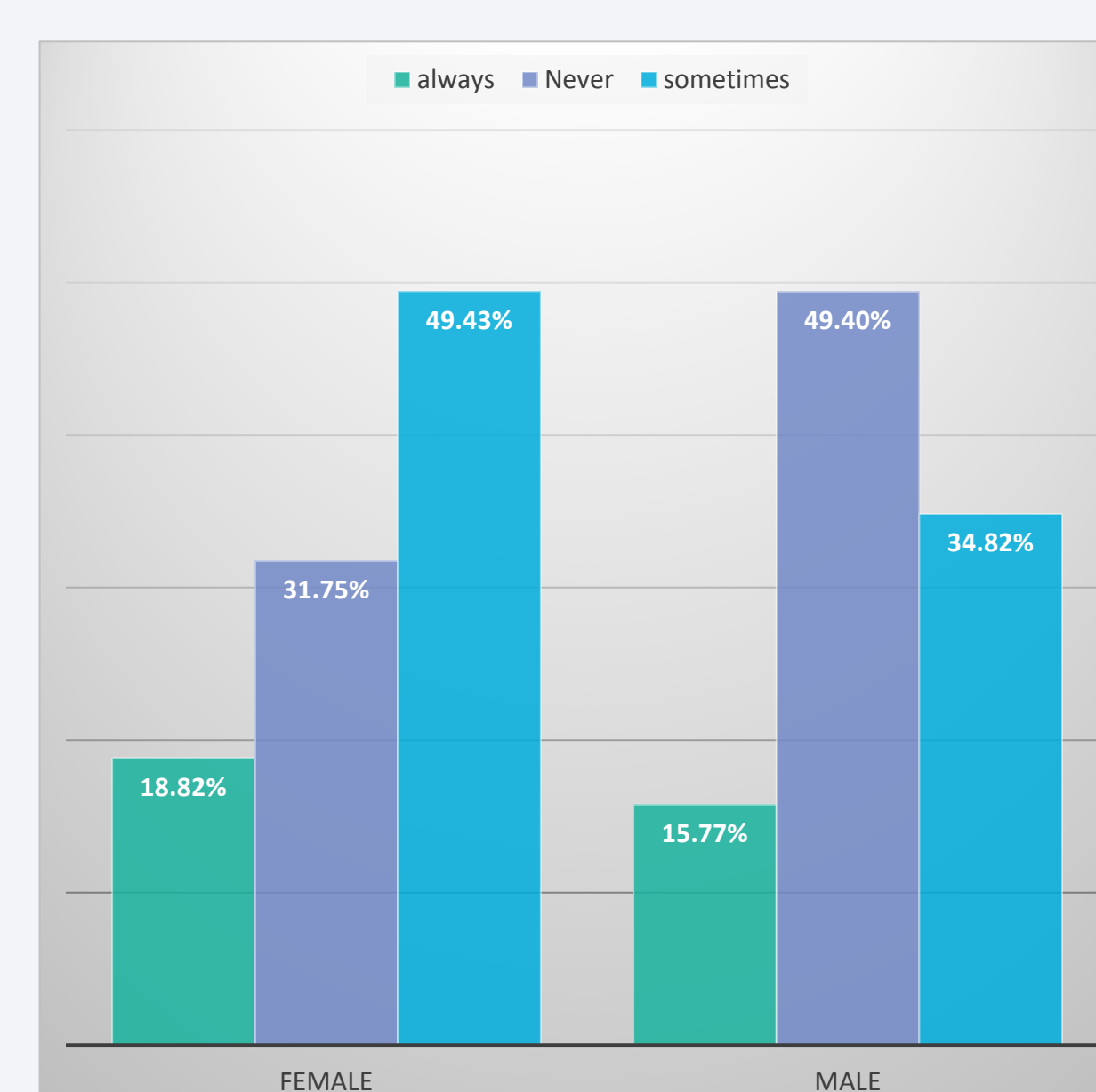


FIGURE3. percentage of how often people read food labels relative to Gender

## RESULTS

### Attitude:

70.4% of the sample believed that salt intake reduction is very important, 23% thought it is less important and 5.8 thought it is not important. 45.4% are satisfied by the amount of salt in food served in restaurants and canteens, 31.2% thought it is high, 17% thought it is too high and 6.3% thought it is low. 81% thought it should be mandatory to specify the foods high in salt in catalogues/restaurant menus and in supermarkets, 5.5% thought it is necessary only in restaurants and 4.8% thought it is necessary only in food products in supermarkets and 8.8 were not interested.

### Practices:

43.1% of the sample reported that they sometimes read the nutritional information on food labels, while 39.5% said they never check food labels and only 17.5% check it always. 29.7% reported that their decision is always affected by the information they read in food lables, and it sometimes affect the decision of 23.2% , and never affect the decision of 7.6% of the study sample. only 12.5% always check the sodium specifically, 22.9 sometimes check it and 25.1% never check it. However, the customer's decision was always affected by the sodium content in 17.9% and sometimes affected in 12.1%. 75.4% add salt to more than half of meals while 14.8% add it to less than half of the meals and 9.8 rarely add it. Adding salt to more than half of meals on table is reported by 6.9%, and 16% add it to less than half of meals on table.

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