



Healthy Lifestyle (Nutrition and Sport) Among Deciles in Israel

Yafit Alfandari
(Central Bureau of Statistics, Israel)
yafita@cbs.gov.il

Tzilla Sade
(Central Bureau of Statistics, Israel)

Paper prepared for the 37th IARIW General Conference

August 22-26, 2022

Session 7B-2, Economic Insecurity: Measurement, Causes and Consequences

Time: Friday, August 26, 2022 [16:00-17:30 CEST]

Healthy Lifestyle (Nutrition and Sport) Among Deciles in Israel

Tzilla Sade and Yafit Alfandari

Israeli Central Bureau Statistics¹

Abstract

The purpose of the paper is to examine the healthy lifestyle among deciles. Our definition to healthy lifestyle consists of two basic principles – a healthy diet and exercise.

Three contributions are presented: The first one is within the context of poverty to a healthy lifestyle in a developed country; this context is not necessarily inherent. The second is that the COICOP classification of consumer products are divided according to their nutritional components (proteins, carbohydrates, fats and dietary fiber)². Therefore it will be possible for each country to examine it. The third is the relevance to multidimensional poverty.

The main findings are that the rich live in a healthier lifestyle than the poor, although that there are possibilities for the poor to eat cheap healthier food and exercise outside. Hence, not only the cost of the products is meaningful, also the awareness of the population concerning a healthy lifestyle is crucial.

Key words: Poverty, Multidimensional Poverty, Food Insecurity, Inequality, Healthy Lifestyle

¹ Works of research of this sort are not official publications of the Israeli Central Bureau of Statistics (CBS), and therefore the opinions and conclusions expressed in these publications are those of the authors and do not necessarily represent those of the CBS.

² Table 2 at the supporting information contains the division of nutritional components to the food products, according to the COICOP codes.

Table of Contents

1.	Introduction	3
2.	Brief Review of the Literature.....	5
2.1	Healthy Lifestyle and Diet Quality	
2.2	Review Of Studies And Surveys Conducted In Israel On The Subject Of Lifestyle, Food Insecurity and Poverty – Food Insecurity Survey (National Insurance Institute), Health And Nutrition Survey (Ministry of Health)	
2.3	Characteristics of the Israeli Economy	
3.	Sources of Data.....	13
3.1	The Household Expenditure Survey	
3.2	The Social Survey	
4.	Empirical Approach.....	16
4.1	The process of classifying food products by components	
4.2	Limits of the Measurement	
5.	Main Findings	19
6.	Summery and Conclusions.....	30
	References	32
	Supporting information	34

1. Introduction

In this paper, we examine healthy lifestyle patterns of households in Israel. Lifestyle patterns are examined by measuring a person's monthly food basket and exercise. The data are taken from a number of sources, which are current surveys conducted by the Central Bureau of Statistics in Israel. The comparison between poor and rich households is presented by income deciles.

The first three goals of the UN's Sustainable Development Goals are the eradication of poverty, zero hunger, good health and well-being. These are fundamental rights that every person is entitled to in a modern civilized society. In this paper we seek to unite these three aspects and present a multidimensional picture of the population and its health characteristics. Poverty is usually measured in financial aspects such as income and consumption; we propose a multidimensional definition of poverty that integrates the health aspect in order to emphasize another dimension of the economic insecurity of poor people. In this paper, we highlight the impact of economic insecurity on people health and well-being and on their equality of opportunities. This is, in our opinion, one of the most important developments in multidimensional poverty indices.

The coronavirus (COVID-19) pandemic sharpened the gaps between rich and poor households in access to resources, and especially in access to food. Access to food is the most basic essential product required for people to exist. During the COVID-19 period when places were closed, people stopped working and were isolated in their homes; many of them used their savings to survive at the most basic level. People who had better access to resources and services survived at a higher rate, as well as people whose initial state of health was better. The last two years in the shadow of the pandemic has further emphasized the need to examine social disparities not only in the economic aspect but rather in the more basic aspect of health and access to resources.

Additionally, income level affects accessibility to basic needs and food. The lower the average income level, the more serious the consequences for households in terms of access to food.

In choosing spending priorities, low-income households find it more difficult to balance between their income and basic expenses, since the amount of money available is less. Thus, they often have to decide between choosing necessary expenses for household needs, such as mortgage payments, heating, electricity and medical care, and buying necessary food items.

In this paper, we analyze the health habits of the population by examining food consumption and the rate of participation in exercise activities. In addition, we will show a general picture of the Israeli economy through topics such as the GDP per

capita, prices, and distribution of deciles. These indices provide a complementary and explanatory picture to the data presented here on the subject of access to food. In our opinion, policy makers are required to look at all the indices when determining welfare, taxation and subsidy policies for vulnerable populations. Indeed, a key conclusion in our paper is that the war on poverty and hunger must be analyzed in a multidimensional holistic way.

The purpose of the paper is to examine the healthy lifestyle among households by deciles. Are consumption and healthy lifestyle of poor households different from rich households, and is there a relationship to food insecurity?

We used the Household Expenditure and Income Survey to achieve the purpose of the study. We have created a new classification for food products by dividing the food items into their components (protein, fats, dietary fiber and carbohydrates). We also used findings from the Social Survey to evaluate exercise activity.

In this paper, there are three contributions: The first one is within the context of poverty to a healthy lifestyle in a developed country like Israel. This context is not necessarily inherent; especially in a developed country. The second contribution is that the COICOP classification of consumer products are divided according to their nutritional components (proteins, carbohydrates, fats and dietary fiber). Therefore it will be possible for each country (according to its prices) to examine at the individual level the issue of consumption in general, and healthy consumption in particular. The third contribution is the relevance of the study to a broad measurement of multidimensional poverty related to macroeconomic policies such as taxation programs, distribution of government benefits and equal opportunities for resources.

2. Brief Review of the Literature

2.1 Healthy Lifestyle and Diet Quality

A healthy lifestyle consists of two basic principles – a healthy diet and exercise. However, before the detailed definition of a healthy lifestyle and the breakdown of the food components, it is very important to mention the population awareness regarding a healthy lifestyle. It is not always financial distress causing one to make unhealthy food choices, for example, or not exercise, but rather one's lack of awareness of this issue. At professional conferences on food insecurity and health, the public awareness of the issue and the need to market and make the issue accessible to the public, is critical.

And yet, when it comes to examining healthy living in the economic context and the capability of a person or family to lead this lifestyle and purchase the healthy items, the economic aspect has a lot of weight. According to the State of the Nation Report released in 2016, an examination of the cost of a healthy food basket found that per capita expenditure on a healthy food basket increases with household income.

According to the US Healthy Eating Index (HEI), there are several versions of diet quality, a healthy food basket, that have evolved over the years. Currently the recommendation is for 50% consumption of fruits and vegetables (20% and 30%, respectively), proteins – 20%, and carbohydrates (whole grains) – 30%.

Israel has adopted the Mediterranean dietary plan, which advocates a preference for unprocessed plant-based whole foods with a combination of smaller amounts of animal protein including eggs, milk products, fish, chicken and meat. Food groups that are included in the healthy diet are whole grains, vegetables and fruits – foods that are rich in protein and in healthy fats.

In January 2021, the Israeli Ministry of Health published recommendations for the composition of a basket of products. The principles of nutrition are based, as stated, on the principles of the Mediterranean diet.

The recommendations are divided into foods that are recommended to be consumed daily:

- ✓ At every meal: vegetables / fruits and whole grains
- ✓ On a daily basis in the various meals throughout the day
 - Legumes such as fava beans, peas and beans
 - Oil such as olive oil, almonds, avocados and tahini
 - Low-fat milk products, with no added sugar, or dairy substitutes
- ✓ Foods to be consumed throughout the week
 - Sea or pond fish
 - Eggs
 - Chicken and turkey: the lean parts of chicken and turkey

In this work, the analysis of the components of the food basket will be according to their division into carbohydrates, dietary fiber, fats and proteins in each product, along with a distinction whether in general the product is defined as healthy or not.

The Mediterranean dietary plan has four interrelated benefits:

1. The health dimension
2. The environmental dimension
3. The socio-cultural dimension
4. The economic dimension

One should aspire to achieve and maintain a healthy and stable weight in the normal range for adults, and for normal weight and height increases from birth, throughout infancy and from early childhood to adulthood. While maintaining a healthy diet, it is recommended to exercise regularly, at least about 150 minutes a week of moderate-intensity activity, or 75 minutes a week of high-intensity activity for young people. It is recommended that children have physical activity for at least an hour each day.

Nourishment should be varied, and based mainly on:

- A menu rich in a variety of plant-based foods;
- Unprocessed food or food that has undergone minimal processing;
- Minimal use of oils, salt and sugar for seasoning and food preparation.

It is recommended to use cooking methods that preserve the natural nutrients of foods (such as steaming and stir-frying), and to choose self-preparation of food from raw ingredients over pre-packaged or ultra-processed foods.

2.2 Review of studies and surveys conducted in Israel on the subject of lifestyle, food insecurity and poverty – Food Insecurity Survey (National Insurance Institute), Health and Nutrition Survey (Ministry of Health)

National surveys focusing on health and nutrition issues are an essential and effective means of describing the population's general health, nutrition and lifestyle. In this section, we will briefly review a number of surveys conducted in Israel on the subject and also present key findings from them.

According to a Brookdale study (2003), food insecurity manifests itself first in unbalanced meals, then in reducing the size of meals, later in not eating for an entire day and going hungry, with priority in caring for the children's food security.

In examining dietary patterns the main differences are in the amount, type and variety of foods. Households that reported severe food insecurity consumed about one-third to two-thirds of the amount of chicken, meat, fish, fruits, vegetables and dairy products compared to households that enjoyed food security. The diet of those who

do not have food security is poor in essential nutrients, such as protein, iron, calcium, vitamin B12 and folic acid.

Surveys of food insecurity conducted by the Israeli National Insurance Institute reported that one-fifth of families reported food insecurity, according to a series of questions asked.³

The Food Security Survey 2016 was the third national survey conducted by the National Insurance Institute Research and Planning Administration. It differs from the previous two surveys in that this time the interviewees of 2011 and 2012 were contacted again, in order to learn about the degree of permanence of food insecurity, either exiting from it or entering into it, in 2016.

According to the findings, in 2016, 82.2% of families in Israel had food security and 17.8% of families lived in food insecurity. The report shows a trend of decrease in food insecurity in the population, in a comparison between the 2016 survey and the previous surveys. The trend of improvement in food security in the total population is supported by a decrease in the numbers of families and individuals living in poverty between the two periods. The decrease is noticeable in families with children, where the level of food insecurity decreased from rates of about 30% to rates of about 20%.

As in the previous findings, it was found that there are considerable differences between the various populations in this area: Among Arabs and among recipients of subsistence allowances and single-parent families, the percentage of those in food insecurity is relatively high. This result is not surprising in view of the fact that these allowances have hardly been updated and that it is difficult to receive them.

With regard to characterization of food insecurity as an ongoing (permanent) phenomenon – the findings show that most of the families (92.4%) who had food security five years earlier (2011-2012) also had food security in 2016. Of those who had food insecurity in 2011-2012, however, slightly less than half (44.7%) continued have food insecurity in 2016 as well. That is to say, in a time range of approximately four years the level of permanence of food insecurity amounts to almost half.

Respondents from households that reported moderate food insecurity also consumed less meat, fish, and dairy products, compared with households that enjoyed food security, and therefore consumed fewer essential nutrients as well, compared to those households that had food security. Households that reported moderate food insecurity consumed more of these products and the essential nutrients than respondents from households that reported severe food insecurity.

³ National Insurance Institute research.

https://www.btl.gov.il/English%20Homepage/Publications/Documents/mechkar_127e.pdf

Another group of surveys are the Health and Nutrition Surveys (known as the MABAT Surveys in Hebrew). The surveys were conducted by the National Center for Disease Control at the Ministry of Health in collaboration with the Central Bureau of Statistics (CBS) and the Nutrition Department of the Ministry of Health. Decision makers use the scientific data emerging from the survey in formulating policies and intervention plans. The information can also assist academia, industry, NGOs and volunteer organizations, and promote plans for a healthier Israel.

The questionnaires are distributed according to age groups and include:

Food consumption assessment;

Health situation and health habits (exercise, smoking, drinking alcohol, taking medication and using nutritional supplements);

Knowledge and attitudes about nutrition and health;

Anthropometric measurements of the sampled persons.

The findings from these surveys are numerous and focus on various issues. In a large-scale MABAT survey of children it was reported that 37.7% of children aged 2-11 live below the poverty threshold (28.7% of Jews and Others and 67.9% of Arabs).

Of Jewish and others⁴ households, 1.4% have children with very low food security, and 13.2% of Arab households.

In a large-scale MABAT adult survey, it was reported that one-fifth (21.9%) of persons aged 18-64 are below the poverty threshold (16.1% of Jews and 49.2% of Arabs). A large-scale golden-age MABAT survey reported that one-fifth (19.7%) of those aged 65 and over are below the poverty threshold (16.9% of men and 22.2% of women).

Of persons aged 18-64, 3.7% are in a state of very low food security (2.0% of Jews and 10.5% of Arabs); 5.3% of those aged 65 and over are in a state of severe food security.

2.3 Characteristics of the Israeli Economy

In this part of the paper, we present a demographic and economic picture of Israeli society using micro- and macro-indices of living standards, in order to compare between the deciles, and especially between the upper decile and the lower decile⁵. Additionally, it is important to present these indices, in order to examine a healthy

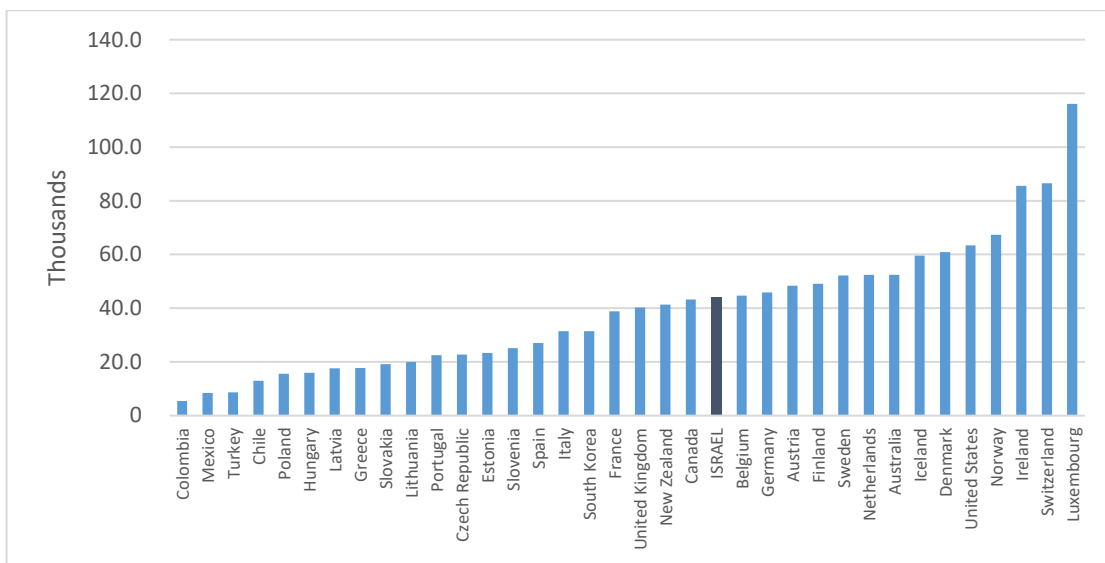
⁴ Non-Arab Christians, members of other religions, and not classified by religion in the Population Register.

⁵ All the deciles in this paper are based on the household money income per standard person. The income includes the income of all household members from salaried or self-employed work and from property, interest and dividends, subsidies and allowances from institutions and individuals, income from pensions, and any other current income. It also includes imputations for income from the use of one's dwelling. Gross money income does not include non-recurrent receipts such as inheritance and severance pay. The net income per household includes the gross current income, after deduction of compulsory payments (income tax, National Insurance, and National health insurance). The net income per standard person, which is used in this paper, includes the net household money income divided by the number of standard persons in the household.

lifestyle and food insecurity in light of the overall economic perspective. This context will later help us to understand the multidimensional picture that emerges in regards to the consumption habits, exercise activities and lifestyle of the population in Israel, including the poor households.

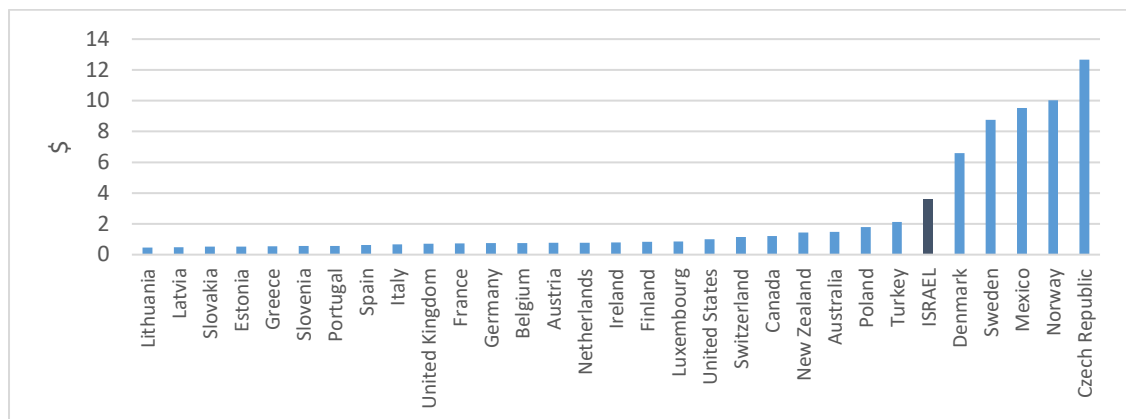
In Israel, the GDP per capita was \$44,200 in 2020, in the middle of the scale among OECD countries. In 2022, the level of the GDP per capita in Israel is 66% of that in the United States and 80% of the average level in the developed countries.

Figure 1 : Gross Domestic Product Per Capita Based on Exchange Rate (Thousands), 2020



Prices in Israel are high in an international comparison. Price ratio measures the number of currency units of country B required in country B to purchase the same amount of goods and services that can be purchased with one currency unit of country A in country A. Among other things, the prices in Israel reflect the strength of the local currency, but not high inflation (inflation in Israel is relatively low). Rather, the prices reflect a significant strengthening of the local currency, against the background of the strength of the balance of payments. The high prices are also caused by the import barriers, lack of competition, excessive regulation and protection of local producers.

Figure 2 : Purchasing Power Parities (PPPs) and Price Level Indices for Gross Domestic Product (GDP), 2020



The Gini index for measuring income distribution and inequality between household incomes in Israel in 2018 was 0.348, in the top third of the OECD countries. A country's poverty rate is complementary to the Gini index. In Israel, in 2018, the rate of poor households was also in the highest third of OECD countries – 32.5% of households are poor.

Figure 3: GINI Index among OECD Countries, 2018

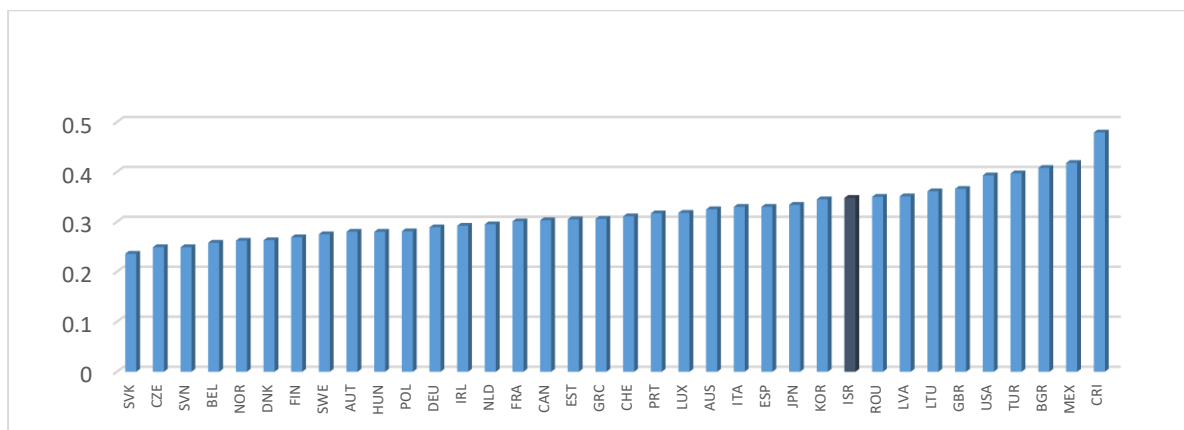
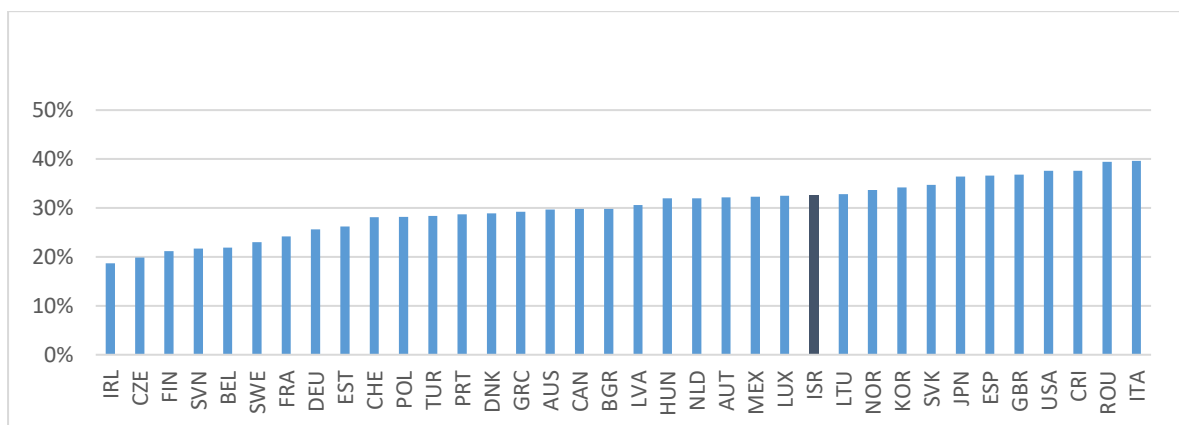
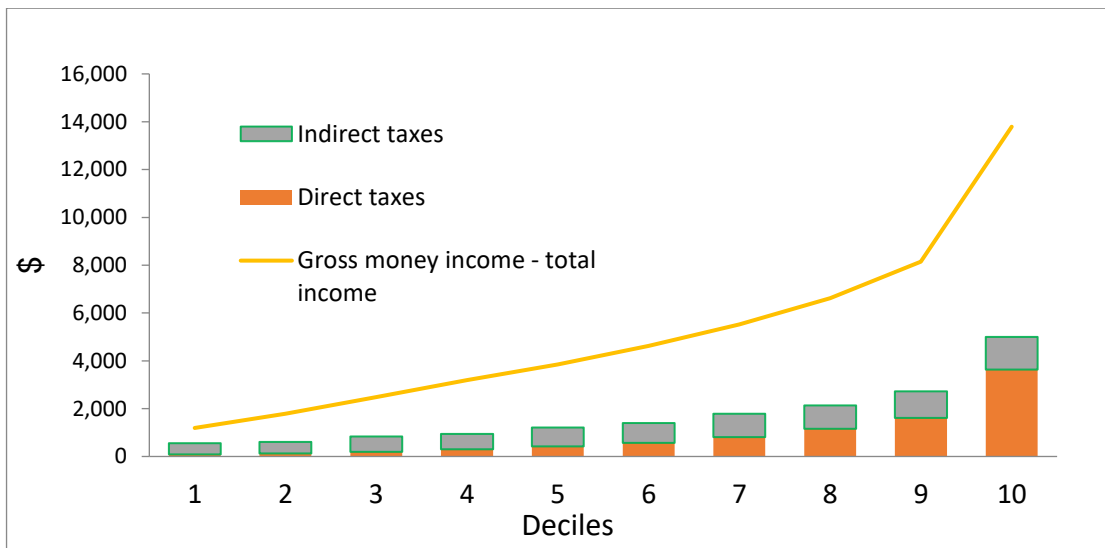


Figure 4: Poverty Threshold among OECD Countries, 2018



Another aspect of inequality is at the level of deciles. The poorest households in Israel are concentrated in the lowest three deciles. There are high disparities in incomes among households: The net monetary income per household in the upper decile is 12 times higher than that in the lowest decile. In terms of tax burden, it can be seen that the indirect tax burden, which mainly includes VAT and purchase taxes on products, is very high, especially on the lower deciles. The direct taxes, which mainly include taxes on labour, usually income tax, are divided proportionally among the deciles.

Figure 5: Total Income and Tax Payments for Households by Deciles, 2014



To conclude the macro characteristics of the Israeli economy and society, it is also important to present the demographic composition of the deciles. In the lower deciles, there are more families with children, compared to the higher deciles. The average number of persons per household in Israel is 3.3 and the average number of earners is 1.5. In the lowest decile, there are 4.4 people on average and 0.8 earners. The upper decile has an average of 2.5 people and 1.7 earners. Those aged 65 and over are divided among the deciles in a proportional manner, but in the upper decile their percentage is higher than the average in the population (27% compared to 20%, respectively) and in the lower decile their rate is low (11.5%).

Figure 6: Household Composition by Deciles, 2018

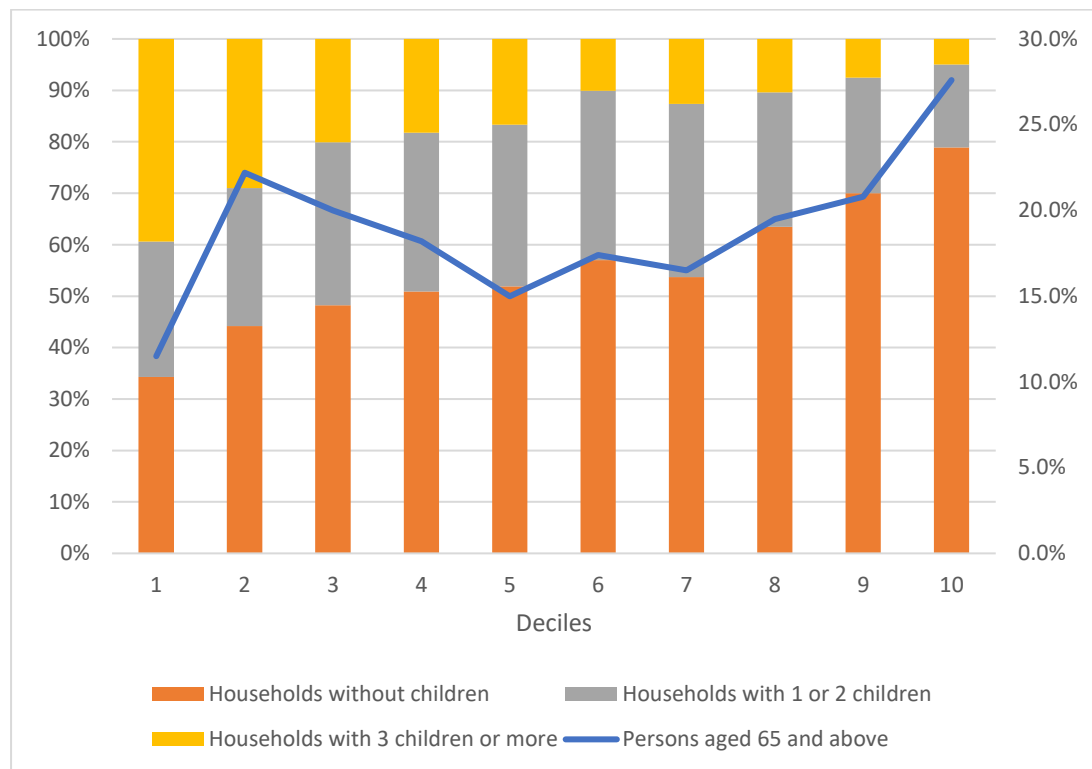
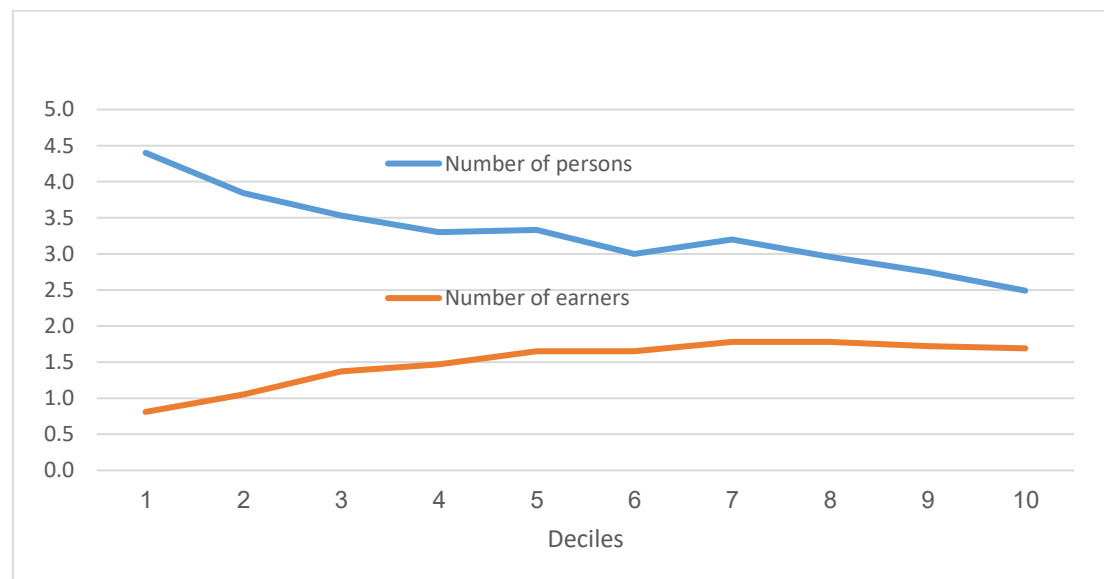


Figure 7: Persons and Earners, by Deciles, 2018



In conclusion, this section comes to shed light on the findings that will be presented below regarding the health behavior of households in Israel, in relation to eating habits and exercise. In Israel, as mentioned, the income disparities among the deciles are high; there is high inequality and a high incidence of poverty. At the same time, the cost of living is high and the burden of indirect taxation on poor households is high. As stated, we will address all of these points in the analysis and summary of the findings.

3. Sources of Data

3.1 The Household Expenditure Survey

The Household Expenditure Survey has been conducted in Israel every year since 1997. It includes variables of household and individual expenditure, income, ownership of durable items and housing. The main three goals of the Household Expenditure Survey are:

- The base for the Consumer Price Index, which is adjusted every two years, on the basis of these surveys.
- Integration of household expenditure data each year, which has improved the National Accounts data.
- The poverty threshold and the Gini Index.

Sampling Method

(1) Sampling Model and Probability

A two-phase sample was drawn for the survey: in the first phase, a sample of localities was selected; and in the second phase, dwellings were sampled from the chosen localities.

The sampling probability was determined on the basis of estimates of the anticipated proportion of non-respondents in the survey, the planned size of the sample, and an estimate of the total number of households in the survey population in the middle of the survey year, and the need to augment the localities defined above.

(2) Sampling of Localities

The localities sample was drawn from a list of localities belonging to the sample population (called "the frame for sampling the localities"). The size of each locality in the survey population was calculated – the most updated estimate of the total number of households.

In 2018, 247 localities were included in the sample.

Seventy-six localities, where approximately 79% of all the households participating in the survey population reside, were included as a take-all sample. Each locality constituted a separate sampling stratum.

An additional 943 localities in the sampling frame were distributed among the sampling strata on the basis of their similarity in terms of different variables such as type of locality, socio-economic characteristics, and geographic proximity to one another. Interviewing quotas were allocated to each sampling stratum (each quota comprised approximately 13 dwellings in the gross sample), in accordance with the size of the sample. The localities were arranged separately for each stratum on the basis of various characteristics, and a random-systematic sample of localities was

drawn in accordance with their size. Altogether, 172 probability localities were included as a take-some sample.

Investigation Method and Survey Period

Collecting the survey data: Data were collected from each household in an integrated manner, as follows:

- 1) A questionnaire on the household's structure, filled out by the interviewer. The questionnaire includes basic demographic and economic data on each member of the household (e.g., age, sex, country of birth, year of immigration, status at work, etc.).
- 2) A weekly diary, in which the household recorded each member's daily expenditures over a period of a week.
- 3) A questionnaire that examined large or exceptional expenditures and income. The questionnaire filled out by the interviewer on the basis of reports from the household relating to the 3-month or 12-month period preceding the date of the interview (depending on the rarity of expenditures for the items investigate).

Survey period: The data were collected "in the field" over a period of approximately 13 months, beginning in January of the survey year and ending in January of the subsequent year. Investigation of the sample was spread across the entire survey period, so that all weeks in the investigation period would be represented.

Estimates of expenditures obtained from the diary are approximations of expenditures made during the survey year. The estimates obtained from the questionnaire pertain to a 15-month period (for the 2018 survey, from October 2017 to December 2018), or a 24-month period (from January 2017 to December 2018), according to the type of expenditure.

Estimation method: The method aimed to minimize potential sampling errors and biases deriving from the fact that households that did not respond to the survey may have characteristics that differ from those of the participating households.

In order to obtain estimates for the entire survey population, a "weighting coefficient" was determined for each household investigated, with all members of a given household having the same weighting coefficient. A household's weighting coefficient reflects the number of households and persons in the survey population represented by that household.

3.2 The social survey

The source of data for examining lifestyle and exercise activities was the Social Survey. The Israel Central Bureau of Statistics (ICBS) Social Survey has been conducted annually since 2002 on a sample of persons aged 20 and older.

The main purpose of the Social Survey is to provide up-to-date information on the welfare of the Israeli population and their living conditions. The information provided by the survey is used by social policy makers, local authorities, by social researchers, students and by the general public.

The questionnaires are administered by ICBS interviewers using laptops to conduct computer assisted personal interviews (CAPI) based on Blaise software developed by Statistics Netherlands. Because of restrictions due to COVID-19, during 2021 part of the interviews were done by telephone.

The interviews are conducted in Hebrew, Arabic and Russian. An interview lasts about 45 minutes.

The social survey questionnaire has two main parts: a core questionnaire containing about 200 items covering the main areas of life such as health, housing, employment, economic situation, and a variable module devoted to a different topic each year in order to investigate it in greater detail than is possible in the core questionnaire.

The variable module of 2002 dealt with pension coverage; in 2003 with a multidimensional measurement of welfare; in 2004 with non-compulsory educational frameworks for children (aged 0-13) connected with parent's employment; in 2005 with participation in labor force; in 2006 caregiving; in 2007 welfare and satisfaction with government services; in 2008 social mobility; in 2009 religiosity and family life; in 2010 health and way of life and computer usage; in 2011 lifetime learning and usage of languages; in 2012 pension plans and savings, and workers organizations, in 2013 welfare of the population; in 2014 environmental quality and social capital, in 2015 attitudes regarding government services and citizen involvement, in 2016 quality of employment and working conditions, in 2017 health and way of life, in 2018 social mobility and in 2019 housing, family cohesion, helping a family member with disabilities and travel abroad, in 2020 – the digital age, in 2021 - transportation and road safety, language use and Quality of Life indicators.

4. Empirical Approach

4.1 The process of classifying food products by components

In the Household Expenditure Survey diaries there are 258 food products, divided into the following seventeen sub-groups:

Table 1: Sub-groups of food products In the Household Expenditure Survey

Sub-Group	Examples of items in sub-group
Total bread	Frozen dough, standard bread, sliced bread, rice, breakfast cereal
Total vegetable oils and their products	Olive oil, tahini, margarine
Total meat and poultry	Sausage, frozen chicken, aged meat and chicken
Total fish	Carp, canned fish, fresh fish
Total milk and its products and eggs	Pasteurized milk, sweet cream, salted cheese, eggs
Total sugar and its products	Sugar, chocolate, halva
Total soft drinks	Soda water, mineral water
Total alcoholic beverages	White beer, vodka
Total of various food products	Salt, vinegar, baby food
Total potatoes and sweet potatoes	Potatoes and sweet potatoes
Total fresh vegetables	Lettuce, squash, pumpkin
Total fresh fruit	Oranges, avocados, melons
Total frozen vegetables	Mixed frozen vegetables, frozen potato products
Total pickled and canned vegetables	Olives, hot sauce, tomato paste
Canned and frozen fruits	Canned and frozen fruits
Total dried fruit	Dried figs, raisins, peanuts
Total fruit juices	Fruit juices

To each of the food products, the following nutritional values were linked: proteins, carbohydrates, fats, dietary fiber.

An internet search of the nutritional values was made on sites like (<https://www.foodsdictionary.co.il/NutritionalValues/Index.php>)

listing the nutritional values for food products per hundred grams of product . The search focused on one site in order to obtain uniform values (the item was not always found on that site and so we examined other sites and food labels); sometimes we made assumptions to decide what the correct nutritional value should be. The main principles were:

Average of products, for example, frozen fish was the average of the nutritional values of salmon and tilapia.

A representative item was chosen from the group, for example, eggs size M.

Nutritional values of a product were copied from a similar product, for example, values for fresh chicken were copied from the nutritional values of frozen chicken.

When products contained 2-3 products, an average was made between them, for example, chocolate spread and cocoa spread.

Calculations were made for proteins, carbohydrates, fats, and dietary fiber in the same unit of measure – grams, and were published for one hundred grams of product. ⁶

In order to calculate quantities, it was necessary to calculate the price of each product:

Some of the prices were taken from the Consumer Price Index (CBS Table 4.6) as of July 2018 and some of the prices were taken from the internet (<https://www.pricez.co.il/>).

Prices were calculated per hundred grams of product. Fluids were converted to grams according to data on the internet.

The steps performed were as follows:

1. Calculate the average price per capita that a household is paying per hundred grams of product
2. Calculate an average price per capita per hundred grams of product
3. Calculate in each decile an average quantity of units of 100 grams purchased
4. Calculate the relative share of each of the four components in the product
5. Calculate the amount of protein consumed in each decile
6. Calculate the amount of carbohydrates consumed in each decile
7. Calculate the amount of fat consumed in each decile
8. Calculate the amount of dietary fiber consumed in each decile

In this fashion a calculation was made for all 258 food products of the Household Expenditure Survey in all 17 sub-groups: fish, soft drinks, etc., for the four components. The processing performed and described in the continuation were

⁶ Table 2 at the supporting information contains the division of nutritional components to the food products, according to the COICOP codes.

sometimes done at the level of the individual item and sometimes according to the sub-groups.

It is important to emphasize that the tables in this paper were calculated by deciles; however, the population can be segmented according to additional breakdowns at the micro level, such as family types and geographical areas.

4.2 Limits of the Measurement

The study did not directly measure food consumption. In order to be accurate, a detailed diary of nutrition on the level of individual products would be required, as conducted in the National Health and Nutrition Survey (MABAT), where a food diary is filled out and information is gathered on the type of food eaten, portion size and frequency.

The study also does not address the amount of food wasted by households. The study assumes that food waste in households is similar, but it is likely that households in the upper deciles have higher food waste than households in the lower deciles, in which food consumption is more efficient. This issue has a direct impact on the differences in the quantities consumed seen between the deciles.

Average prices were used, regardless of place of purchase, which is known to have an effect, especially when considering the differences between poor and rich households. There are price differences between downtown stores and supermarkets on the outskirts of cities, as well as price differences between stores of the same chain in cities in the center of the country and in cities in the periphery.

Not all components were considered. In the fat component, for example, there is a difference between saturated fats, unsaturated fats and trans fat – each type of fat has a different effect on the body. However, in segmentation by components, no distinction was made between different types of fat. We related to all fats in the same way.

The definitions of health – and especially a healthy lifestyle – that we used in this study were mainly concerned with diet and exercise, however, there are other aspects of health not taken into account in the study, such as hygiene, air pollution, waste, living conditions, congenital diseases, etc.

The item of out-of-home meals was not taken into account. Out-of-home settings seem to be characterized by restaurants and cafes for the upper deciles. In addition, there is nutrition in kinder gardens and schools, some of which is part of a nutrition project for lower-class pupils and part of which is nutrition that is provided in a centralized manner to students, according to school choice. However, this is on a very moderate scale in Israel and is not covered in this paper.

5. Main Findings

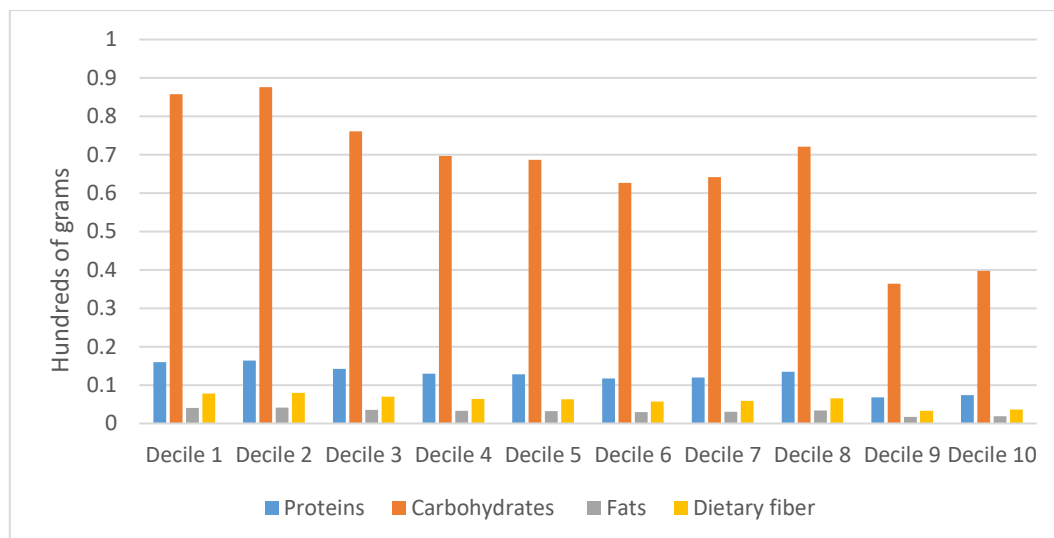
The analysis throughout this chapter is according to the division of deciles of households according to net income per standard person.⁷

A comparison of the deciles shows that the consumption amount of food per person, include proteins, fats, carbohydrates and dietary fiber is higher in the top deciles than in the lower deciles. It indicates, among other things, the food insecurity of the lower deciles.

In comparing the individual product it can be seen that:

- Consumption of sliced bread is higher in the lower deciles compared to higher consumption of special bread in the upper deciles. Special bread is consider as healthier; it includes sourdough bread, low-sugar bread and whole wheat bread.
- Consumption of rice is higher in the lower deciles compared to higher consumption of brown rice in the upper deciles.
- Consumption of soybean oil is higher in the lower deciles compared to higher consumption of olive oil in the upper deciles.

Figure 8 : Consumption per Capita of Sliced Bread, by Deciles, Hundreds of Grams, 2018



⁷ The income includes the income of all household members from salaried or self-employed work and from property, interest and dividends, subsidies and allowances from institutions and individuals, income from pensions, and any other current income. It also includes imputations for income from the use of one's dwelling. Gross money income does not include non-recurrent receipts such as inheritance and severance pay. The net income per household includes the gross current income, after deduction of compulsory payments (income tax, National Insurance, and National health insurance). The net income per standard person, which is used in this paper, includes the net household money income divided by the number of standard persons in the household.

Figure 9 : Consumption per Capita of Special Bread, by Deciles, Hundreds of Grams, 2018

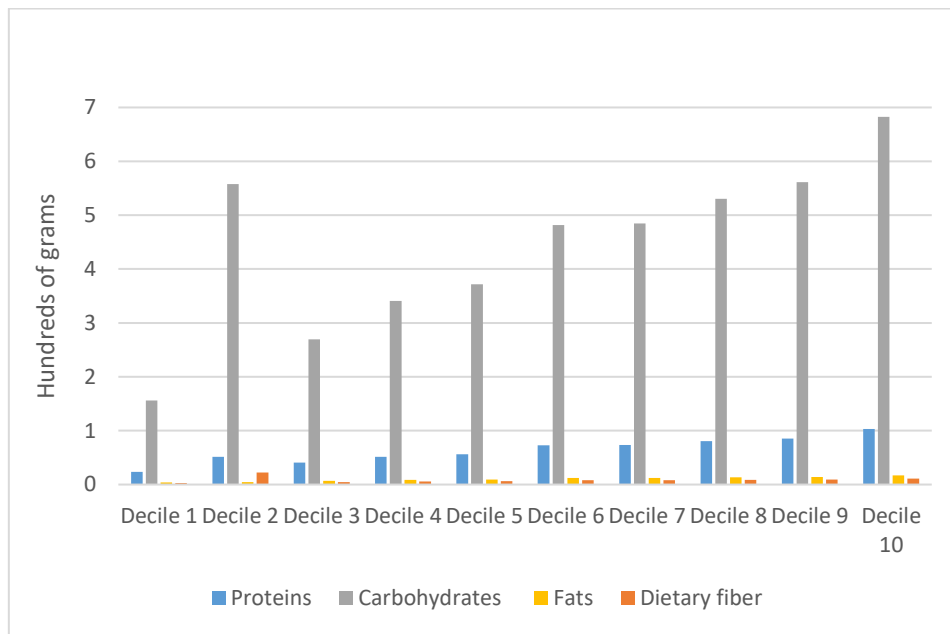


Figure 10 : Consumption per Capita of Rice, by Deciles, Hundreds of Grams, 2018

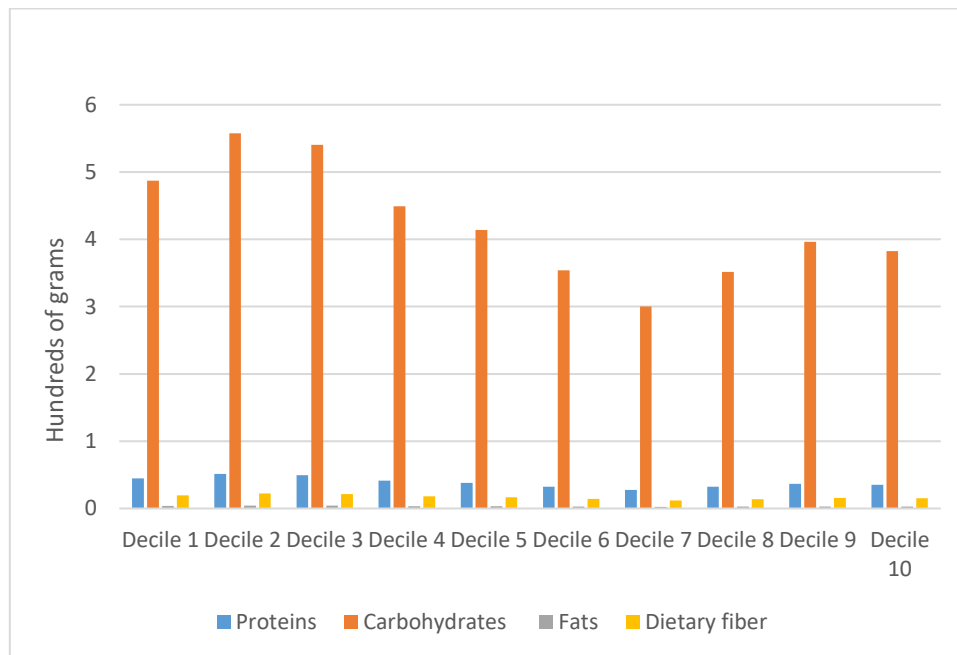


Figure 11 : Consumption per Capita of Whole-Grain Rice, by Deciles, Hundreds of Grams, 2018

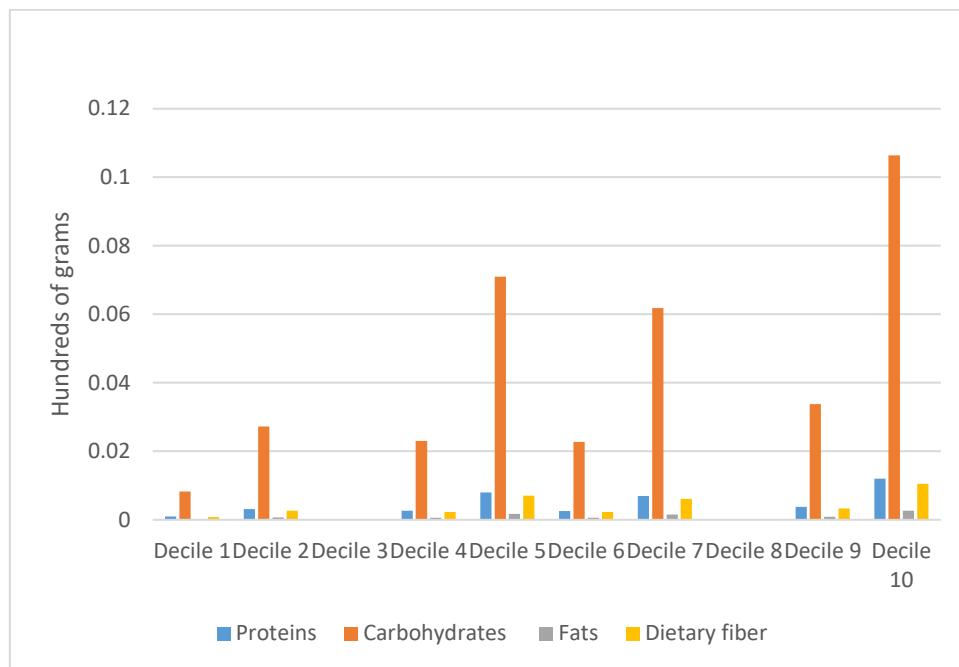


Figure 12 : Consumption per Capita of Soybean Oil Fats , by Deciles, Hundreds of Grams, 2018

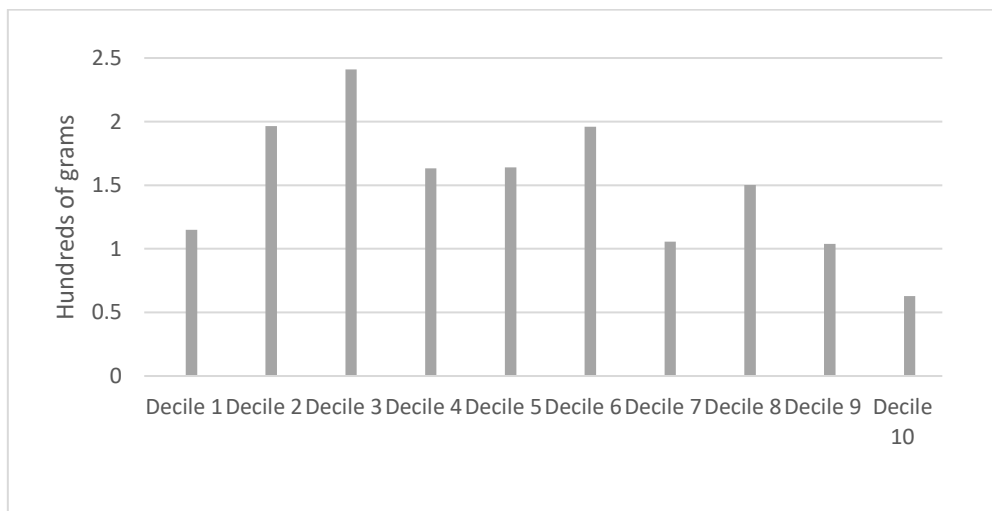
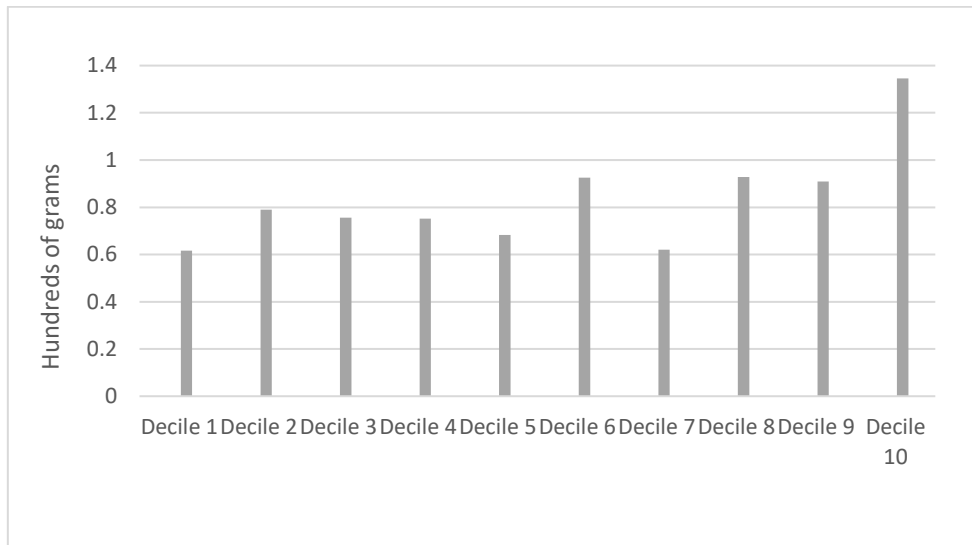


Figure 13: Consumption per Capita of Olive Oil Fats, by Deciles, Hundreds of Grams, 2018



The products consumed in the lower deciles are considered less healthy and cheaper.

Figure 14: Consumption per Capita Live or Fresh Chicken, by Deciles, Hundreds of Grams, 2018

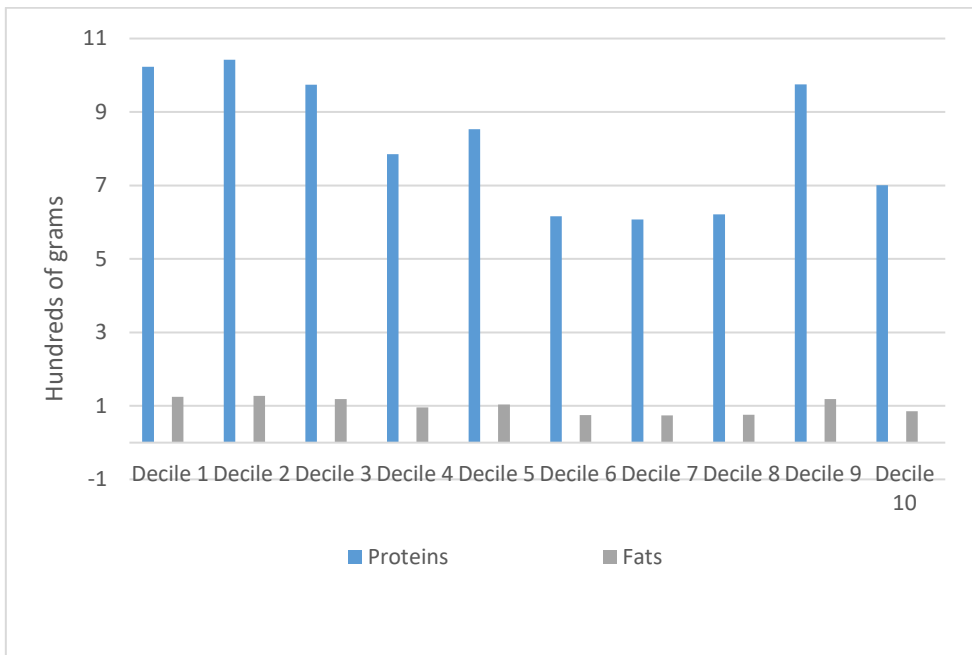
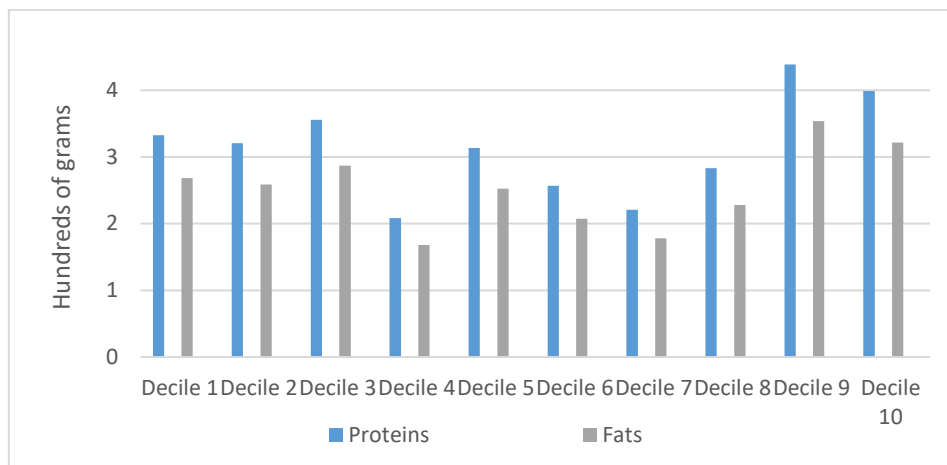


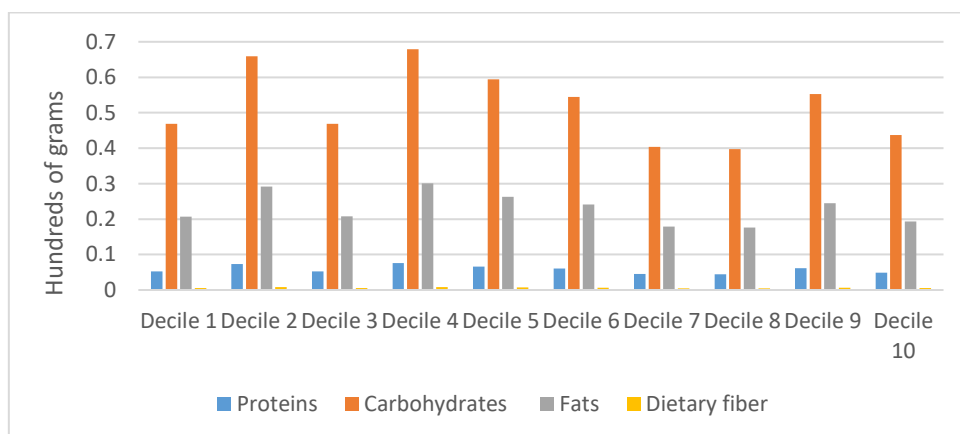
Figure 15: Consumption per Capita of Fresh Beef , by Deciles, Hundreds of Grams, 2018



Consumption of fresh chicken meat and fresh beef is characterized by varying frequency between deciles.

Consumption of confectionery products is characterized by varying frequency between the deciles but their consumption is higher in the five lower deciles compared to the five higher deciles. This points to the high risk of having diabetes and high blood pressure in these deciles.

Figure 16: Consumption per Capita of Confectionery Products, by Deciles, Hundreds of Grams, 2018



Consumption of vegetables and fruits is higher in the higher deciles. It is important to mention here that the vegetables prices in Israel are cheap due to the government subsidies to farmers.

Figure 17: Consumption per Capita of Vegetables, by Deciles, Hundreds of Grams, 2018

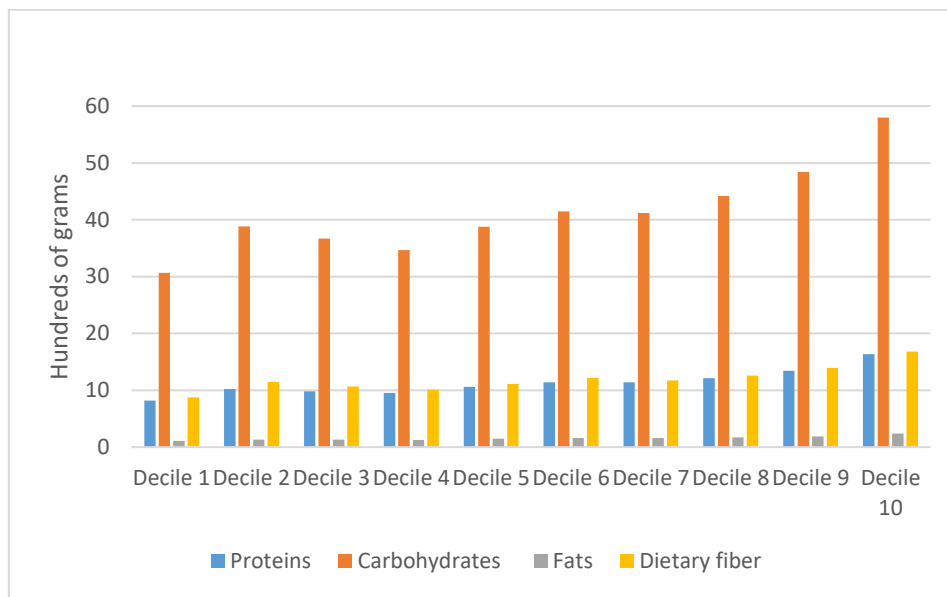
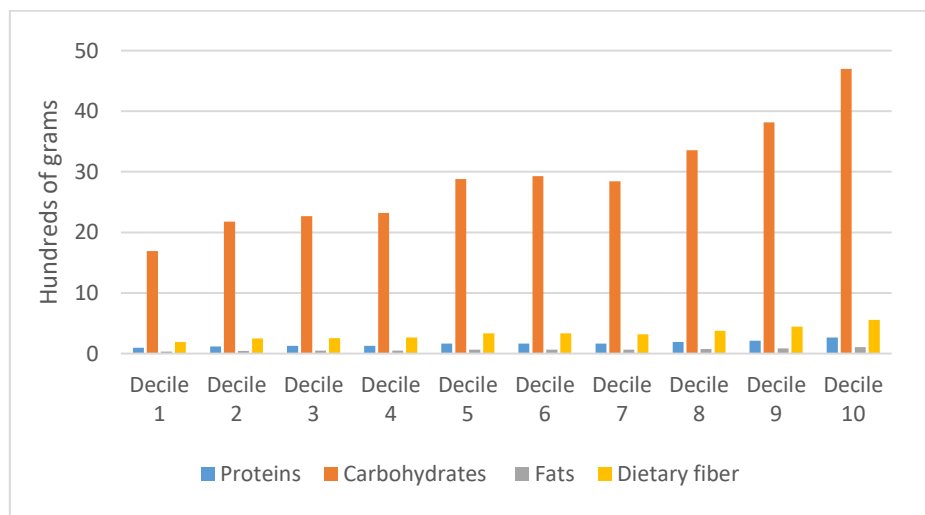


Figure 18: Consumption per Capita of Fruit, by Deciles, Hundreds of Grams, 2018



A comparison of product sub-groups shows that:

- Consumption of fruit juices and alcoholic beverages is higher in the upper deciles compared to their consumption in the lower deciles. Consumption of soft drinks varies throughout the deciles.
- Consumption of fruits in their different forms – fresh, dried fruits, fresh fruit juices, canned and frozen – is higher in the upper deciles compared to their consumption in the lower deciles.
- Consumption of vegetables in their various forms – fresh, frozen, pickled and canned, potatoes and sweet potatoes – is higher in the upper deciles compared to their consumption in the lower deciles.

Figure 19: Total Monthly Consumption per Capita of Beverages, Grams, 2018

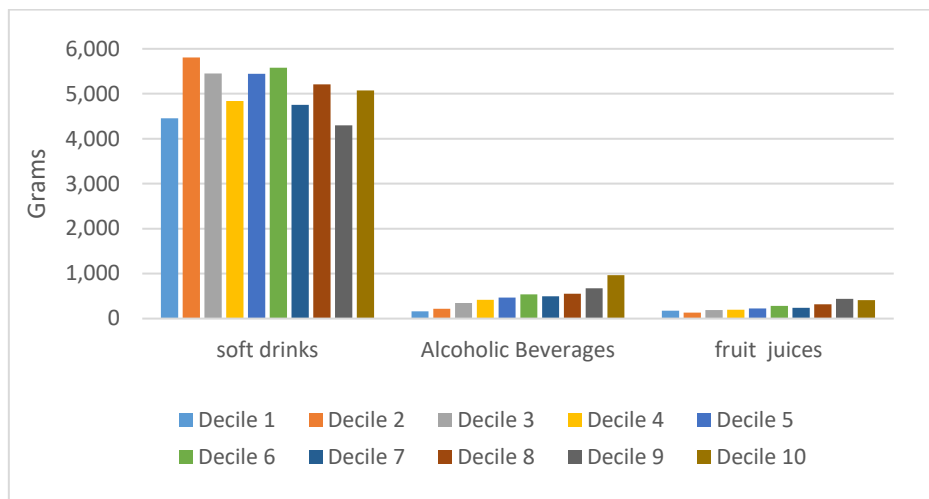


Figure 20: Total Monthly Consumption per Capita of Fruits, Grams, 2018

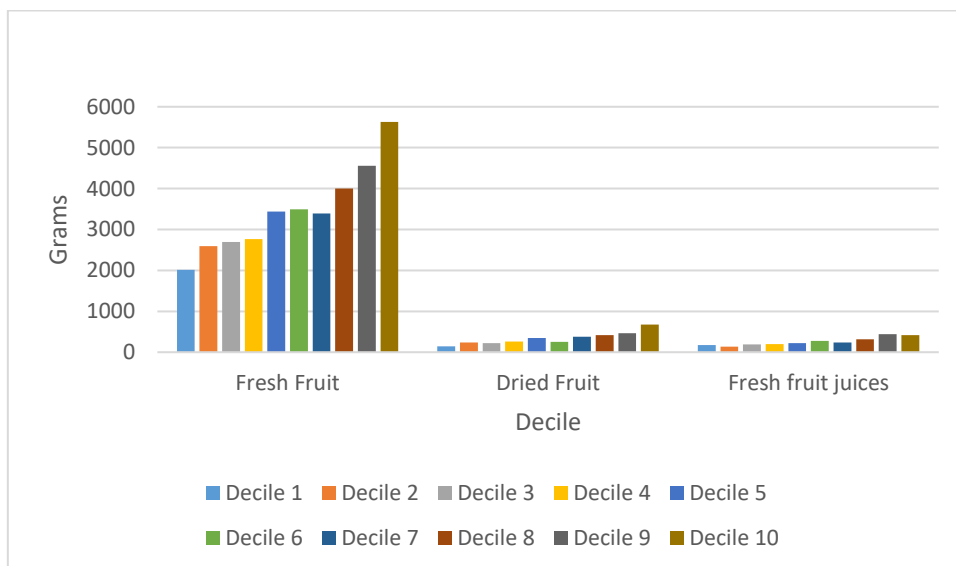


Figure 21: Total Monthly Consumption per Capita of Vegetables, Grams, 2018

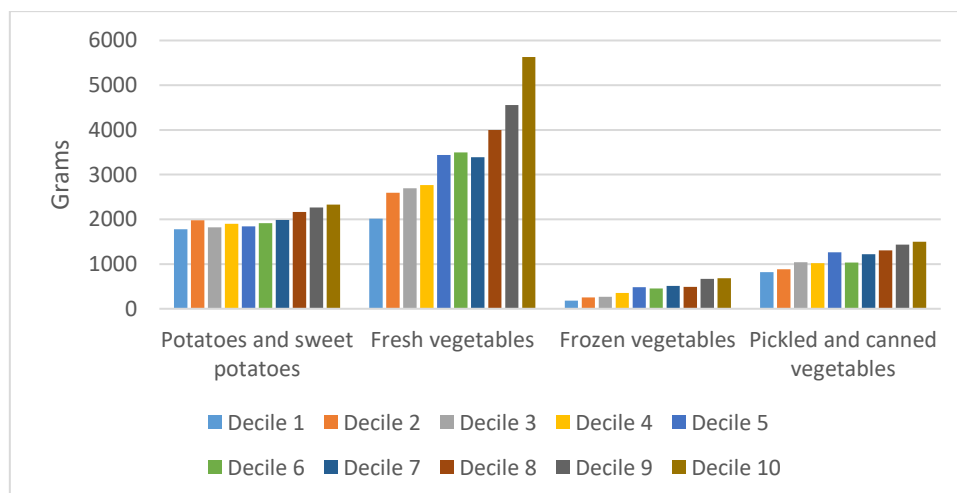


Figure 22: Nutritional Components Distribution of Dried Fruits by Decile, Percentage, 2018

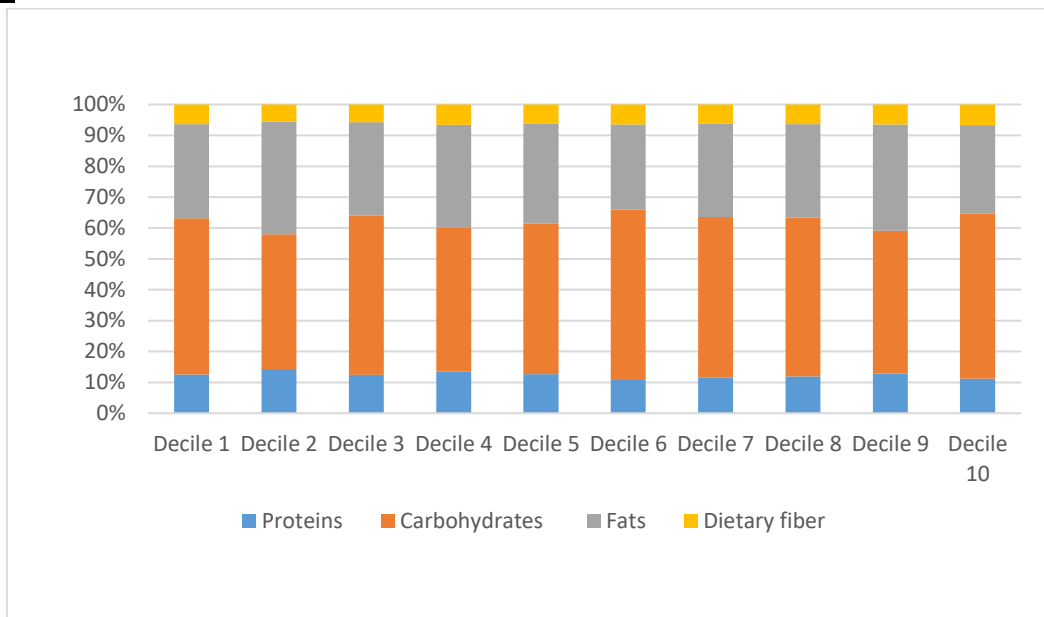


Figure 23: Nutritional Components Distribution of Fresh Fruits by Decile, Percentage, 2018

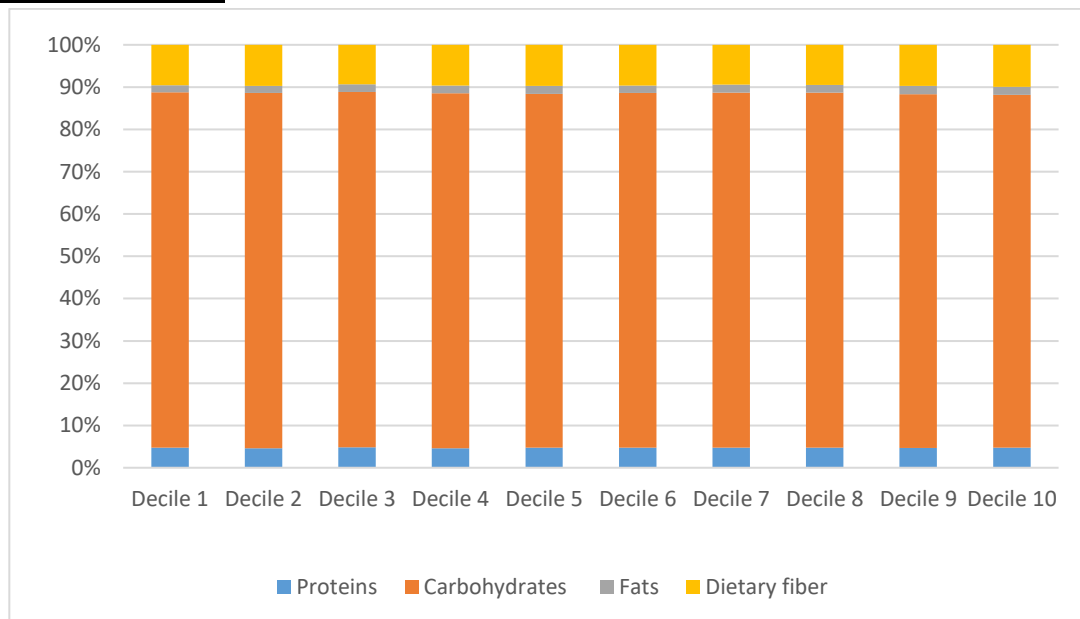


Figure 24: Nutritional Components Distribution of Fresh vegetable by Decile, Percentage, 2018

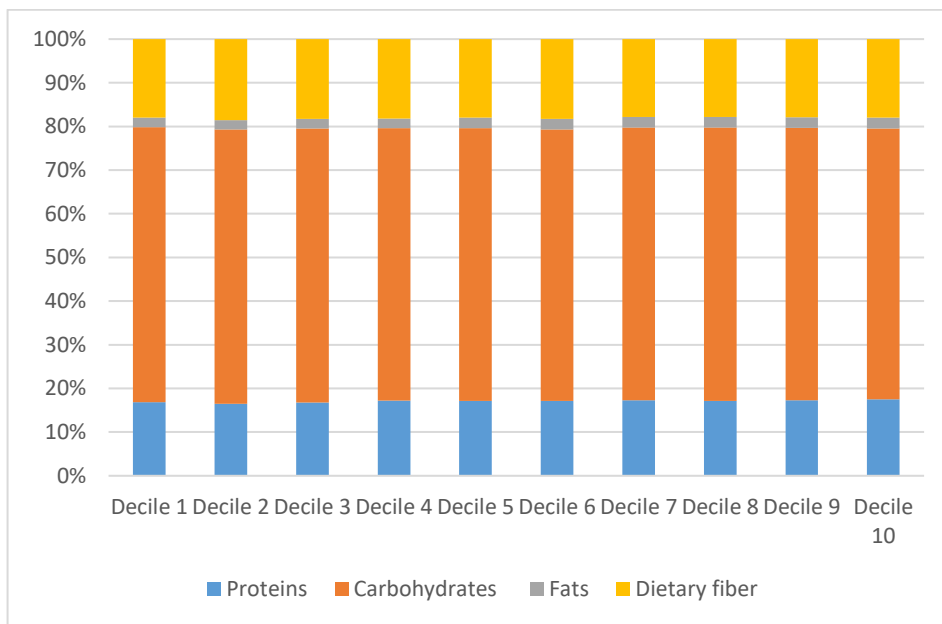


Figure 25: Nutritional Components Distribution of Milk and its Products and Eggs by Decile, Percentage, 2018

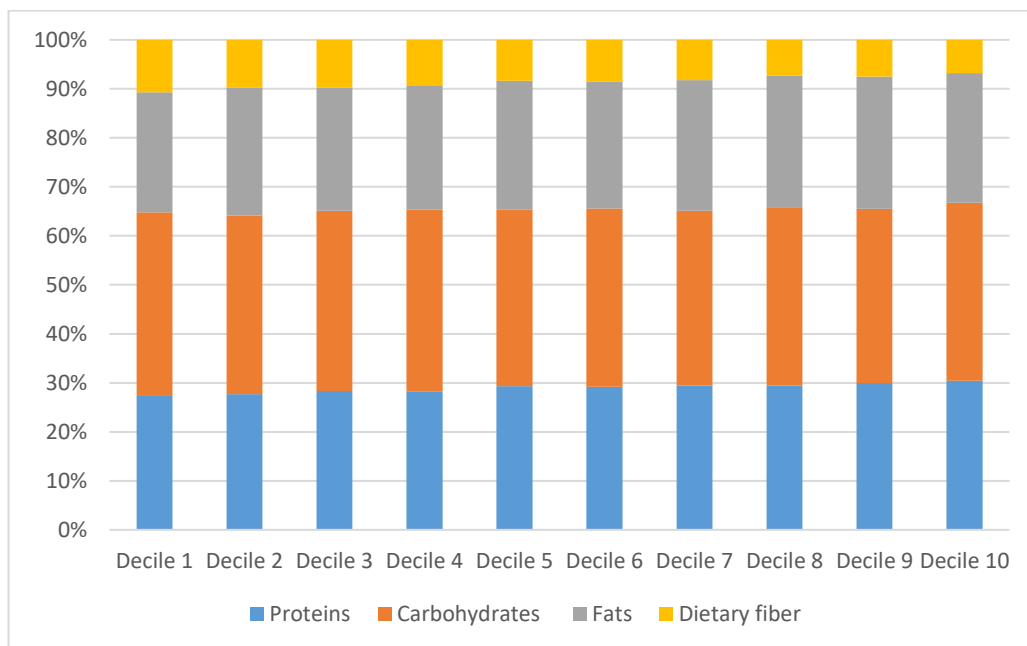
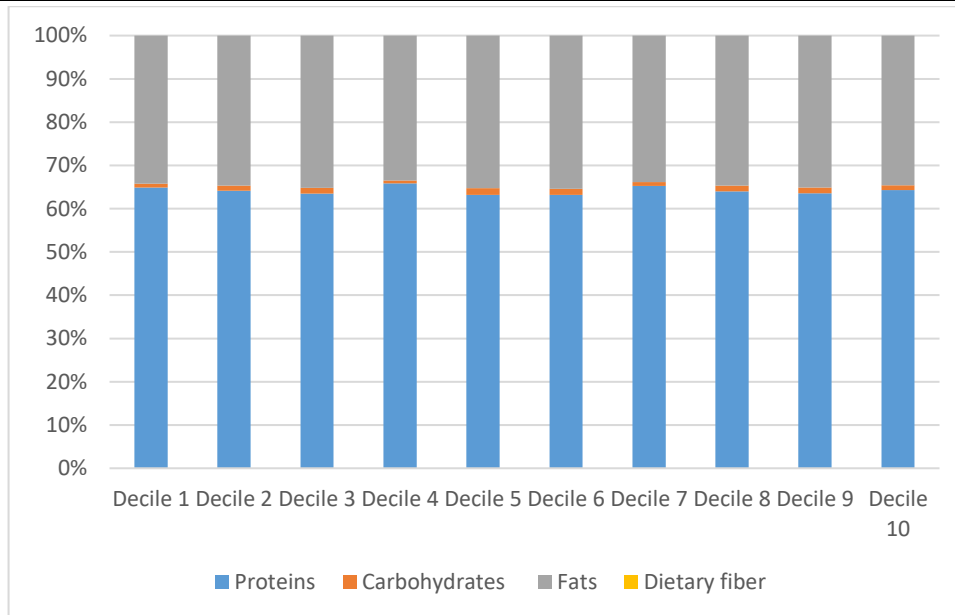


Figure 26: Nutritional Components Distribution of Fish by Decile, Percentage, 2018



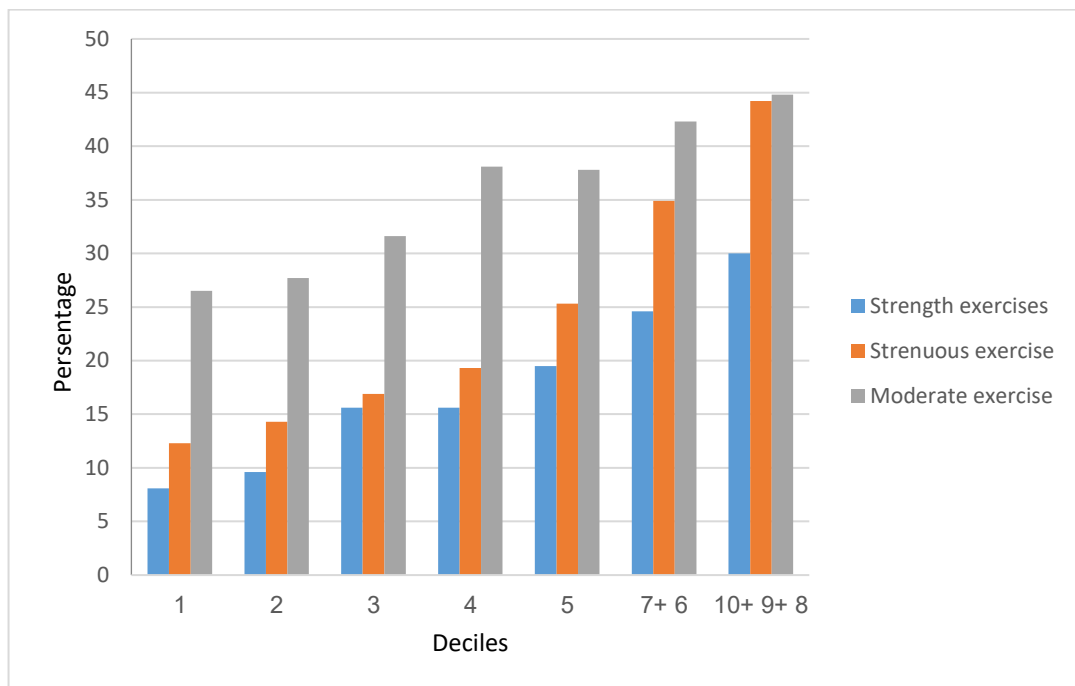
A comparison of the deciles shows that the consumption of proteins, fats, carbohydrates and dietary fiber is higher in the higher deciles.

In an examination of exercise, there are large differences between the deciles in exercise patterns. As the deciles increase, so does the percentage of people who exercise, regardless of whether it is strenuous, moderate, or focused muscular activity. In moderate exercise the differences between the deciles are higher than the disparities in doing strenuous or focused exercise on muscles.

This can be directly attributed to household awareness of the importance of exercise as well as access to resources. Working on muscles, for example, usually requires access to gyms, and those to whom these are more accessible and have the means to use them are middle or upper class households.

However, despite this, in every city there are fitness parks that are available for the use of the entire public, so here it is important to emphasize the issue of awareness and perhaps even time. The awareness of households in the lower deciles to the importance of maintaining fitness in the context of good health is low. Perhaps, they work longer hours, although in the analysis at the beginning of the article we show that households in the middle and upper deciles work more than the lower deciles.

Figure 27: Exercise by Deciles, Percentage, 2017



6. Summary and Conclusions

Our main conclusion is that within the context of the situation of poverty and a healthy lifestyle in a developed country like Israel, the reasoning that people do not reach the threshold of poverty to the extent of hunger is not very accurate. Our findings here prove that there are differences in food products between high and low income households. We demonstrated that the high deciles consume more food and more healthy food. Unhealthy food consumption in the lower deciles has a huge impact on their health status and their need for benefits and government support.

A number of central findings stood out in the findings. As expected, the products consumed in the lower deciles are considered less healthy and cheaper. The upper deciles purchase a greater amount of food, however, this is inconclusive given the study's limitation of measuring consumption and not waste; it could be that the upper deciles are throwing away more food.

Another finding is the higher consumption of confectionery products in the five lower deciles compared to the five higher deciles. Besides the fact that these are unhealthy products, they have implications for the general level of health, such as the risk of developing diabetes, for dental and gum health, the risk of liver disease, etc. This consumption has direct effects on a whole set of treatments to which this population, which consumes higher amounts of sugars, will have to channel its economic resources. This will of course affect its quality of life in terms of health and economics.

In an examination of the consumption of healthy products such as vegetables and fruits, it was found to be relatively higher in the higher deciles. Here the separation between fruits and vegetables is important. As we showed at the beginning of the paper, the level of prices for products in Israel is higher than OECD countries. However, there are products for which domestic production has a priority and there are government subsidies for them, making them cheaper. In simple terms, vegetables in Israel are relatively cheap and fruits are expensive. And yet, despite this, poor households consume fewer vegetables as well. This can be attributed to the lack of awareness of the poor population in Israel of the health benefits of vegetables and their substantial impact on nutrition.

In the context of the findings, it is very important to talk about the limitations of the data. There was no direct measurement of food consumption. It is known that in order to be accurate, we would require a diary of nutrition on the level of individual food items. There is also no reference to waste; it is assumed in the study that households throw away food to the same extent. However, it is likely that households in the upper deciles have more food waste and households in the lower deciles have more efficient food consumption. The issue of waste has a direct effect on the differences in the quantities consumed that are seen between the deciles. Another limitation is that we used average prices for everyone regardless of place of purchase. This has an impact, especially when looking at the differences between poor and rich households. In

addition, not all components were taken into consideration. Regarding the fat component, there is a difference between good and bad fats, but such a division was not possible in the segmentation by components. We treated all fats in the same way.

Examining exercise, we saw large differences between the deciles in exercise patterns. As the deciles increase, so does the percentage of people who exercise, regardless of whether it is strenuous, moderate, or individualized muscular activity. In moderate exercise, the differences between the deciles are greater than the disparities between doing strenuous exercise or special exercise for the muscles. This can be directly attributed to household awareness of the importance of physical activity as well as access to resources.

The definitions of health, and especially the definition of a healthy lifestyle used in this study, were mainly concerned with diet and fitness habits. However, there are other aspects of health not discussed in this paper, such as hygiene, air pollution, waste, living conditions, congenital diseases, etc.

Still, this study is a milestone in looking at multidimensional poverty and the relationship between poverty and health. It provides an alternative multidimensional definition of poverty that integrates the health aspect and thereby emphasizes another dimension of the economic insecurity of poor people. All of these definitions have a direct impact on economic insecurity, on the health and well-being of people, and on equal opportunities. This is, in our view, one of the important developments in multidimensional poverty indices.

The conclusion of the paper is that a policy of war on poverty and hunger should be multidimensionally holistic and involve the healthy lifestyle of the population; it should include overall analysis of the state of the economy and the distribution of resources. This paper illuminates the impact of a broad measurement of multidimensional poverty and the importance of holistic policy-related analysis such as taxation plans and distribution of government benefits. There is no doubt that when these changes are implemented, they will influence welfare policies related to alternative poverty measures in the future.

References

Azarieva, J. and R. Goldsmith, *What Do We Know about Food Security in Israel?* [in Hebrew], National Nutritional Security Council, 2018.

http://www.ortra.com/events/Portals/100/bitachon_web.pdf

Azarieva, J., Ariyan, B., Goldschmit, R., Ginsberg, A., Milman, R., and C. Chernichovsky, *A Healthy Food Basket in Israel*, Taub Center for the Study of Social Policy in Israel, December 2016. <https://www.taubcenter.org.il/en/research/a-healthy-food-basket-in-israel/>

Bhattacharya, J., Currie, J., and S. Haider, *Food Insecurity or Poverty? Measuring Need-Related Dietary Adequacy*. Discussion Paper No. 1252–02, Institute for Research on Poverty, April 2002.

DeRose, L., Messer, E., and S. Millman, *Who's Hungry? And How Do We Know? Food Shortage, Poverty, and Deprivation*, United Nations University, Tokyo, 1998.

<https://archive.unu.edu/unupress/unupbooks/uu22we/uu22we00.htm>

Endeweld, M., Goldsmith, R., and R. Endevelt, "The Demographic and Morbidity Characteristics of a Population Receiving Food Support in Israel," *Israel Journal of Health Policy Research* 7(54), August 30, 2018.

<https://ijhpr.biomedcentral.com/articles/10.1186/s13584-018-0238-8>

Endeweld, M., Heler O., Barkali, N., and D. Gottlieb, *Food Security Survey 2016: The Course of the Survey and Main Findings*, Israel National Insurance Institute, Research and Planning Administration, August 2019.

https://www.btl.gov.il/English%20Homepage/Publications/Documents/mechkar_127e.pdf

Israel Central Bureau of Statistics, *Consumer Prices Index July 2018*, August 15, 2018.

<https://www.cbs.gov.il/en/publications/Pages/2018/Consumer-Prices-Index-July-2018.aspx>

———, *Selected Data on the Occasion of World Walking Day 2017* [in Hebrew], October 24, 2018.

<https://www.cbs.gov.il/he/mediarelease/pages/2018/%D7%9C%D7%A7%D7%98-%D7%A0%D7%AA%D7%95%D7%A0%D7%99%D7%9D-%D7%9C%D7%A8%D7%92%D7%9C-%D7%99%D7%95%D7%9D-%D7%94%D7%94%D7%9C%D7%99%D7%9B%D7%94-%D7%94%D7%A2%D7%95%D7%9C%D7%9E%D7%99-2017.aspx>

———, *Household Income and Expenditure, Data From the 2018 Household Expenditure Survey – General Summary*, October 29, 2020.

<https://www.cbs.gov.il/en/publications/Pages/2018/Consumer-Prices-Index-July-2018.aspx>

———, *Statistical Abstract of Israel 2021 – No. 72*, July 4, 2021.

<https://www.cbs.gov.il/en/publications/Pages/2021/Statistical-Abstract-of-Israel-2021-No-72.aspx>

Israel Ministry of Health, Israel Center for Disease Control (ICDC), *Rav Mabat Zahav, Second National Health and Nutrition Survey Ages 65 and Over, Years 2014–2015* [in Hebrew with English summary], p. 259, February 2019.

https://www.health.gov.il/publicationsfiles/mabat_zahav_2014-2015.pdf

———, *Rav Mabat Adults, Second National Health and Nutrition Survey Ages 18–64 Years, 2014–2016* [in Hebrew with English summary], p. 239, February 2019.

https://www.health.gov.il/publicationsfiles/mabat_adults_2014_2016_383.pdf

———, *Rav Mabat Kids, First National Health and Nutrition Survey Ages 2–11 Years, 2015–2016* [in Hebrew with English summary], p. 183, November 2019.

https://www.health.gov.il/PublicationsFiles/mabat_kids2_11_2015-2016_full.pdf

Israel Ministry of Health, Nutrition Division, *A Healthy Food Basket* [in Hebrew], January 2021. <https://www.gov.il/he/departments/publications/reports/healthy-food-basket-presentation>

———, *The New Dietary Recommendations* [in Hebrew], June 2020.

<https://www.health.gov.il/PublicationsFiles/dietary-guidelines.pdf>

Leibtag, E. S. and P. R. Kaufman, “Exploring Food Purchase Behavior of Low-Income Households. How Do They Economize?” *Agriculture Information Bulletin*, No. 747–07, June 2003.

https://www.ers.usda.gov/webdocs/publications/42194/15278_aib74707_1.pdf?v=0

National Cancer Institute. *Comparing Version of the HEI*, n. d.

<https://epi.grants.cancer.gov/hei/comparing.html>

Nirel, N., Rosen, B., Erez, S., Ben-Harush, A., Berg-Warman, A., Brodsky, J., Nitzan-Kaluski, D., Haviv-Messika, A., and R. Goldsmith, *Food Security in Israel in 2003 and Its Implication for Patterns of Nutrition*, Myers JDC Brookdale, Jerusalem, 2015.

<https://brookdale.jdc.org.il/en/publication/food-security-israel-2003-implications-patterns-nutrition/>

United States Department of Agriculture, *What Foods Are in Grains Group? My Plate*, n. d. <https://www.myplate.gov/eat-healthy/grains>

———, *Food and Nutrition Service, Indicators of Diet Quality, Nutrition, and Health for Americans by Program Participation Status, 2011–2016: The SNAP Report, December 30, 2021*. <https://www.fns.usda.gov/snap/indicators-diet-quality-nutrition-and-health-americans-program-participation-status-2011>

Supporting information

Table 2: COICOP classification Vs Code of Israel Household Expenditure Survey by nutrition components

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.1.1.1	Wheat	11.50	65.00	1.40	4.00
01.1.1.1.2	Rice	4.03	40.55	0.55	2.45
01.1.1.1.3	Sorghum	10.40	74.70	1.40	0.00
01.1.1.1.4	Barley	10.40	74.70	1.40	0.00
01.1.1.1.5	Millet	10.40	74.70	1.40	0.00
01.1.1.1.6	Maize (corn)	3.32	25.11	1.28	2.70
01.1.1.1.7	Quinoa	10.40	74.70	1.40	0.00
01.1.1.1.8	Teff	10.40	74.70	1.40	0.00
01.1.1.1.9	Other cereals	10.40	74.70	1.40	0.00
01.1.1.2.1	Flour of wheat	10.45	73.20	1.50	0.00
01.1.1.2.2	Flour of rice	10.10	74.40	1.00	0.00
01.1.1.2.3	Flour of sorghum	10.10	74.40	1.00	0.00
01.1.1.2.4	Flour of barley	10.10	74.40	1.00	0.00
01.1.1.2.5	Flour of millet	10.10	74.40	1.00	0.00
01.1.1.2.6	Flour of maize or cornmeal	10.10	74.40	1.00	0.00
01.1.1.2.7	Flour of quinoa	10.10	74.40	1.00	0.00
01.1.1.2.8	Flour of teff	10.10	74.40	1.00	0.00
01.1.1.2.9	Other flours of cereals	10.10	74.40	1.00	0.00
01.1.1.3.1	Bread	9.54	52.13	4.77	3.53
01.1.1.3.9	Other bakery products	8.21	64.87	6.37	1.66
01.1.1.4.0	Breakfast cereals	11.90	70.04	7.20	7.53
01.1.1.5.0	Macaroni, noodles, couscous and similar pasta products	7.60	48.64	8.65	1.58
01.1.1.9.0	Other cereal and grain mill products	6.15	60.35	23.05	4.35
01.1.2.1.3	Goats, lambs and sheep, live	22.68	0.00	10.98	0.00
01.1.2.2.1	Meat of bovine animals, fresh, chilled or frozen	17.70	2.49	12.86	0.00
01.1.2.2.2	Meat of pigs, fresh, chilled or frozen	26.83	0.00	17.61	0.00
01.1.2.2.3	Meat of goats, lambs and sheep, fresh, chilled or frozen	22.68	0.00	10.98	0.00
01.1.2.2.4	Meat of poultry, fresh, chilled or frozen	21.98	0.00	6.09	0.00
01.1.2.2.5	Meat of hares and rabbits fresh, chilled or frozen	26.83	0.00	17.61	0.00
01.1.2.4.0	Offal, blood and other parts of slaughtered animals, fresh, chilled or frozen, dried, salted, in brine or smoked	28.00	0.05	5.30	0.00

Table 2: COICOP classification Vs Code of Israel Household Expenditure Survey by nutrition components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.2.5.1	Sausages and similar products of meat, offal or blood	13.33	9.67	10.67	0.17
01.1.2.5.2	Canned meat	14.00	21.00	12.00	0.00
01.1.2.5.3	Pate, including liver pate	15.69	11.25	11.30	1.50
01.1.2.5.9	Other meat, offal or blood preparations n.e.c.	26.83	0.00	17.61	0.00
01.1.3.1.1	Freshwater fish, live, fresh, chilled, or frozen	17.54	0.00	7.53	0.00
01.1.3.1.2	Salmonoidae, live, fresh, chilled, or frozen	17.40	0.00	8.50	0.00
01.1.3.1.3	Flatfish, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.1.4	Gadiformes, live, fresh, chilled, or frozen	17.40	0.00	8.50	0.00
01.1.3.1.5	Tunas, skipjack or stripe-bellied bonito, live, fresh, chilled, or frozen	17.40	0.00	8.50	0.00
01.1.3.1.6	Other pelagic fish, live, fresh, chilled, or frozen	17.40	0.00	8.50	0.00
01.1.3.1.9	Other fish, live, fresh, chilled, or frozen	17.40	0.00	8.50	0.00
01.1.3.2.1	Salmonoidae, smoked	7.25	5.50	26.00	0.00
01.1.3.2.2	Gadiformes, dried, salted or in brine	7.25	5.50	26.00	0.00
01.1.3.2.9	Other fish, dried, salted, in brine, smoked	7.25	5.50	26.00	0.00
01.1.3.3.1	Tunas, skipjack or stripe-bellied bonito, prepared or preserved	27.44	0.00	10.72	0.00
01.1.3.3.2	Other pelagic fish, prepared or preserved	27.44	0.00	10.72	0.00
01.1.3.3.3	Caviar and caviar substitutes	27.44	0.00	10.72	0.00
01.1.3.3.9	Other fish, prepared or preserved	7.25	5.50	26.00	0.00
01.1.3.4.1	Shrimps and prawns, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.4.2	Other crustaceans, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.4.3	Bivalves, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.4.4	Cephalopods, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.3.4.5	Other molluscs, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.4.9	Other aquatic invertebrates, live, fresh, chilled, or frozen	24.00	0.20	0.30	0.00
01.1.3.5.1	Shrimps and prawns, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.5.2	Other crustaceans, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.5.3	Bivalves, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.5.4	Cephalopods, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.5.5	Other molluscs, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.5.9	Other aquatic invertebrates, dried, salted or in brine; smoked	24.00	0.20	0.30	0.00
01.1.3.6.1	Shrimps and prawns, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.6.2	Other crustaceans, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.6.3	Bivalves, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.6.4	Cephalopods, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.6.5	Other molluscs, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.6.9	Other aquatic invertebrates, prepared or preserved	24.00	0.20	0.30	0.00
01.1.3.7.0	Livers, roes and offal of fish and of other seafood in all forms	24.00	0.20	0.30	0.00
01.1.4.1.1	Raw and whole milk of cattle	3.25	4.90	3.00	0.75
01.1.4.1.3	Raw and whole milk of sheep and goats	2.94	3.45	1.99	0.40
01.1.4.1.9	Other raw and whole milk	2.94	3.45	1.99	0.40
01.1.4.3.1	Condensed or evaporated milk	2.94	3.45	1.99	0.40
01.1.4.3.2	Powdered milk	2.94	3.45	1.99	0.40
01.1.4.3.3	Cream	2.45	7.25	23.50	47.50
01.1.4.3.9	Other milk	2.94	3.45	1.99	0.40
01.1.4.4.1	Coconut milk	2.94	3.45	1.99	0.40

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.4.4.2	Almond milk	3.12	1.98	1.85	19.20
01.1.4.4.3	Soy milk	3.12	1.98	1.85	19.20
01.1.4.4.4	Rice milk	2.94	3.45	1.99	0.40
01.1.4.4.5	Oat milk	2.94	3.45	1.99	0.40
01.1.4.4.9	Other non-animal milk	2.94	3.45	1.99	0.40
01.1.4.5.0	Cheese	14.04	1.85	15.50	0.00
01.1.4.6.0	Yoghurt and similar products	3.85	4.40	2.25	0.45
01.1.4.7.0	Milk-based dessert and beverages	5.05	14.20	3.00	0.85
01.1.4.8.1	Eggs of hen and other birds in shell, fresh	12.56	0.72	9.51	0.00
01.1.4.9.0	Other dairy products	3.85	4.40	2.25	0.45
01.1.5.1.1	Sunflower-seed and safflower-seed oil	0.00	0.00	92.00	0.00
01.1.5.1.2	Palm oil	0.00	0.00	92.00	0.00
01.1.5.1.3	Olive oil	0.00	0.00	100.00	0.00
01.1.5.1.4	Soya bean oil	0.00	0.00	100.00	0.00
01.1.5.1.5	Groundnut oil	0.00	0.00	92.00	0.00
01.1.5.1.6	Coconut oil	0.00	0.00	92.00	0.00
01.1.5.1.7	Corn oil	0.00	0.00	92.00	0.00
01.1.5.1.9	Other edible vegetable oils n.e.c.	12.00	6.50	79.00	4.00
01.1.5.2.1	Butter	0.85	0.06	81.11	0.00
01.1.5.3.0	Margarine and similar preparations	0.00	0.00	80.00	0.00
01.1.6.1.1	Avocados, fresh	2.00	8.53	14.66	6.70
01.1.6.1.2	Bananas, fresh	1.09	22.84	0.33	2.60
01.1.6.1.3	Dates, fresh	1.00	34.00	0.10	5.00
01.1.6.1.4	Figs, fresh	0.75	19.18	0.30	2.90
01.1.6.1.5	Mangoes, guavas and mangosteens, fresh	1.53	15.66	0.61	3.60
01.1.6.2.1	Pomelos and grapefruits, fresh	0.73	9.02	0.07	1.05
01.1.6.2.2	Lemons and limes, fresh	0.35	6.90	0.24	0.30
01.1.6.2.3	Oranges, fresh	0.94	11.75	0.12	2.40
01.1.6.2.4	Tangerines, mandarins and clementines, fresh	0.83	12.68	0.23	1.75
01.1.6.2.9	Other citrus fruits, fresh	1.90	16.00	0.90	7.00
01.1.6.3.1	Apples, fresh	0.26	13.81	0.17	2.40
01.1.6.3.2	Pears and quinces, fresh	0.38	15.47	0.12	3.10
01.1.6.3.3	Apricots, fresh	1.40	11.12	0.39	2.00
01.1.6.3.4	Cherries, fresh	1.06	16.01	0.20	2.10

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.6.3.5	Peaches and nectarines, fresh	0.98	10.04	0.28	1.60
01.1.6.3.6	Plums and sloes, fresh	0.70	11.42	0.28	1.40
01.1.6.4.5	Strawberries, fresh	0.67	7.68	0.30	2.00
01.1.6.4.7	Cranberries, fresh	0.00	78.00	1.00	5.00
01.1.6.5.1	Grapes, fresh	0.72	18.10	0.16	0.90
01.1.6.5.2	Kiwi fruit, fresh	0.99	14.88	0.44	3.40
01.1.6.5.3	Cantaloupes and other melons, fresh	0.84	8.16	0.19	0.90
01.1.6.5.4	Watermelons, fresh	0.61	7.55	0.15	0.40
01.1.6.5.5	Persimmons, fresh	0.58	18.59	0.19	3.60
01.1.6.5.9	Other fruits, fresh, n.e.c.	1.82	11.67	0.89	2.96
01.1.6.6.0	Frozen fruit	1.20	7.90	0.00	4.80
01.1.6.7.1	Raisins	3.39	79.52	0.46	4.00
01.1.6.7.2	Prunes	2.18	63.88	0.38	1.70
01.1.6.7.9	Other dried fruit	2.04	73.95	1.26	5.50
01.1.6.8.1	Almonds, in shell or shelled	21.22	21.67	49.42	12.20
01.1.6.8.2	Cashew nuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.8.3	Chestnuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.8.4	Hazelnuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.8.5	Pistachios, in shell or shelled	20.61	27.97	44.44	10.30
01.1.6.8.6	Walnuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.8.7	Brazil nuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.8.8	Groundnuts, in shell or shelled	23.68	21.51	49.66	8.00
01.1.6.8.9	Other nuts, in shell or shelled	15.23	13.71	65.21	6.70
01.1.6.9.2	Canned fruit	1.20	7.90	0.00	4.80
01.1.6.9.3	Homogenized fruit preparations	1.20	7.90	0.00	4.80
01.1.6.9.4	Nuts and seeds roasted, salted or otherwise prepared	18.00	45.50	33.50	1.50
01.1.7.1.2	Cabbages, fresh or chilled	1.28	5.80	0.10	2.50
01.1.7.1.3	Cauliflowers and broccoli, fresh or chilled	2.18	6.24	0.26	2.90
01.1.7.1.4	Lettuce and chicory, fresh or chilled	1.23	3.29	0.30	2.10
01.1.7.1.5	Spinach, fresh or chilled	2.90	3.60	0.40	2.20
01.1.7.1.9	Other leafy or stem vegetables, fresh or chilled	2.27	5.40	0.47	3.23
01.1.7.2.1	Chilies and peppers, fresh or chilled	1.50	7.75	0.25	1.80

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.7.2.2	Cucumbers and gherkins, fresh or chilled	0.65	3.63	0.11	0.50
01.1.7.2.3	Eggplants (aubergines), fresh or chilled	1.01	5.70	0.19	3.40
01.1.7.2.4	Tomatoes, fresh or chilled	0.88	3.90	0.20	1.20
01.1.7.2.5	Pumpkins, squash and gourds, fresh or chilled	0.96	5.41	0.21	0.95
01.1.7.2.6	Okra, fresh or chilled	2.00	7.03	0.10	3.20
01.1.7.3.1	Beans, fresh or chilled	5.12	12.39	0.31	5.65
01.1.7.3.3	Peas, fresh or chilled	5.42	14.45	0.40	5.10
01.1.7.4.1	Carrots and turnips, fresh or chilled	1.65	9.60	0.31	2.76
01.1.7.4.2	Garlic, fresh or chilled	6.36	33.06	0.50	2.10
01.1.7.4.3	Onions and shallots, fresh or chilled	4.46	8.30	0.14	2.10
01.1.7.4.5	Mushrooms and truffles, fresh or chilled	3.09	3.28	0.34	1.00
01.1.7.4.6	Edible seaweeds and other aquatic plants, fresh or chilled	24.00	0.20	0.30	0.00
01.1.7.4.9	Other vegetable n.e.c., mixtures of vegetables, fresh or chilled.	1.76	6.29	0.16	1.47
01.1.7.5.1	Potatoes	1.14	20.06	0.07	2.40
01.1.7.5.2	Sweet potatoes	1.14	20.06	0.07	2.40
01.1.7.5.4	Yams	1.14	20.06	0.07	2.40
01.1.7.6.1	Beans, dried	9.73	25.09	0.35	6.30
01.1.7.6.3	Chick peas, dried	19.30	60.65	6.04	17.40
01.1.7.6.4	Lentils, dried	17.18	49.31	2.73	12.37
01.1.7.6.5	Peas, dried	22.50	62.20	1.80	13.40
01.1.7.6.9	Other pulses	19.65	43.83	26.02	10.20
01.1.7.8.0	Vegetables, tubers, plantains and cooking bananas, frozen	2.97	14.18	1.47	2.68
01.1.7.9.2	Canned vegetables	1.71	5.31	0.22	1.16
01.1.7.9.3	Preserved olives	1.03	3.84	15.32	3.30
01.1.7.9.5	Tofu	6.23	14.25	10.15	4.23
01.1.7.9.6	Tempeh, soy meat and burgers	17.50	13.50	5.35	4.95
01.1.7.9.9	Other vegetables, pulses and tubers preserved or processed	6.45	35.42	20.88	3.60
01.1.8.1.1	Cane sugar	0.00	100.00	0.00	0.00

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components- Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.1.8.2.0	Other sugar and sugar substitutes	0.27	99.00	0.50	0.00
01.1.8.3.1	Honey	0.30	82.40	0.00	0.20
01.1.8.3.9	Other jams, fruit jellies, marmalades, fruit pure and pastes	0.00	69.00	0.00	0.00
01.1.8.4.0	Nut pure, nut butter and nut pastes	3.28	35.73	29.43	1.54
01.1.8.5.1	Chocolate, including white chocolate	7.40	57.00	29.50	0.00
01.1.8.5.2	Cocoa beans	19.60	57.90	13.70	33.20
01.1.8.5.3	Cocoa powder	19.60	57.90	13.70	33.20
01.1.8.5.9	Other cocoa-based foods and cocoa-based dessert preparations	4.30	52.00	39.00	0.00
01.1.8.6.0	Ice, ice cream and sorbet	1.75	21.50	5.60	0.35
01.1.8.9.1	Vegetables, fruits, nuts, fruit-peel and other parts of plants, preserved by sugar	8.60	27.00	58.00	4.30
01.1.8.9.9	Other sugar confectionery and desserts n.e.c. (not containing cocoa)	7.68	63.76	21.01	1.88
01.1.9.1.1	Pre-cooked dishes based on pasta and cereals	1.60	12.80	3.50	0.00
01.1.9.1.2	Pre-cooked dishes based on meat and/or fish	10.70	22.54	11.04	1.34
01.1.9.1.3	Composed salads and prepared dishes based on vegetables	1.99	8.27	10.14	0.89
01.1.9.1.4	Sandwiches, pizzas, quiches, meat or fish pies, frozen or not	7.40	24.08	10.08	2.68
01.1.9.1.6	Ready-made soups	7.43	44.76	15.33	0.20
01.1.9.2.1	Baby formula	10.60	53.00	28.20	3.00
01.1.9.2.2	Baby rice cereals and flours for baby meals	10.60	53.00	28.20	3.00
01.1.9.2.3	Homogenized baby food	1.25	11.65	0.00	0.00
01.1.9.3.1	Salt	0.00	0.00	0.00	0.00
01.1.9.3.9	Other sauces and condiments	1.82	12.69	11.65	1.03
01.1.9.4.0	Spices, culinary herbs and seeds	5.42	7.78	15.33	5.45
01.1.9.9.0	Other food products n.e.c.	20.22	51.76	12.90	5.37
01.2.1.0.0	Fruit and vegetable juices	0.10	10.00	0.00	0.10

Table 2: COICOP Classification Vs Code of Israel Household Expenditure Survey by Nutrition Components - Continued

Coicop Code	Code Name	Proteins (gram)	Carbohydrates (gram)	Fats (gram)	dietary fiber (gram)
01.2.2.0.1	Coffee	0.11	0.00	9.00	0.00
01.2.2.0.2	Coffee substitutes	12.20	41.10	0.50	0.00
01.2.2.0.9	Other coffee	10.56	45.03	10.00	11.36
01.2.3.0.1	Green tea, leaves	0.07	0.00	0.00	0.00
01.2.3.0.2	Black tea, leaves	0.07	0.00	0.00	0.00
01.2.3.0.4	Instant tea powder	0.07	0.00	0.00	0.00
01.2.3.0.5	Mate	0.07	0.00	0.00	0.00
01.2.3.0.9	Other tea products and plant products for infusion	0.07	0.00	0.00	0.00
01.2.4.0.0	Cocoa drinks	10.56	45.03	10.00	11.36
01.2.5.0.0	Water	0.00	0.00	0.00	0.00
01.2.6.0.0	Soft drinks	0.00	6.62	0.00	0.00
01.2.9.0.0	Other non-alcoholic beverages	0.00	85.00	0.00	0.00
02.1.1.0	Spirits and liquors (ND)	0.00	46.80	0.30	0.00
02.1.2.2	Wine from other sources (ND)	0.04	1.30	0.00	0.00
02.1.3.0	Beer (ND)	0.23	7.08	0.00	0.00

