

Food Security Survey 2016

THE Course of the Survey and Main Findings

Miri Endeweld, Oren heler, Netanela Barkali, Daniel Gottlieb



Working Papers 127



National Insurance Institute
Research and Planning Administration

Food Security Survey 2016

Main Socio-economic Findings

Miri Endeweld, Oren Heller,
Natanela Barkley, Daniel Gottlieb

Working Papers **127**

Jerusalem, August 2018

www.btl.gov.il

PREFACE

The Food Security Survey 2016, whose findings are presented in this report, is the third survey conducted at the Research and Planning Administration of the National Insurance about the food security situation in Israel. The present survey is wider in scope in two respects: firstly it integrates the quantitative lack of food with damage to the nutritional quality. In addition, the survey for the first time examines the ongoing food security situation of the families who were first sampled and interviewed in 2011 or 2012 and again in 2016.

According to the findings, there has been an improvement in the food security situation in 2016 compared to the situation in the years 2011 and 2012. However, almost half the families who experienced food insecurity in the past also continued to experience it in 2016.

The phenomenon of food insecurity does not only characterize families living in abject poverty, but is also seen in families who are slightly below the poverty line or even slightly above it, inter alia due to the fact that on the margins it is "easier" for a family to save on food expenses in order to finance other essential expenses: not because food is less essential – on the contrary – but due to the fact that for technical reasons it is easier to cut back on food expenses than on other essential expenses in order to reallocate the budget between essential needs, as the food expenses are more flexible and can be reduced or increased more easily than the other essential expenses, such as rent, monthly mortgage payment, etc., which the family is expected to pay in one payment, else the family risks being evicted from the apartment.

An important conclusion from the report is that the food security problem is first of all a problem of lack of income. Therefore it is not surprising that one of the most severe findings in the report is for families of working age who are dependent on an income support allowance. This, as is known, is very low in Israel, and therefore **more than half the individuals in those families, many of them with children, were exposed to food insecurity in 2016 – 55.3%. In addition, more than one-third (35.6%) of income support recipients are in a situation of ongoing food insecurity. This percentage is the highest among the groups which were examined** (Table 13). The recommendation which follows from this is that it is necessary to increase the income support allowance for families of working age immediately. Such a policy proposal was made by the

National Insurance at the War on Poverty Committee (2014) and was rejected. The National Insurance, in cooperation with the Minister of Labor, Social Affairs and Social Services, recently prepared an updated proposal in the same spirit. It is strongly recommended that this proposal be advanced as an effective and correct solution to improve the food security situation. This proposal also suitably takes into account the incentive to work.

I wish to thank Dr Miri Endeweld, Oren Heller and Ms Natanela Barkley for preparing this in-depth report. Thank you also to Alexander Galia for statistical advice, to Shaul Nimrodi and Orel Abutbol for carrying out the telephonic survey, to Prof. Ronit Endevelt and Ms Rivka Goldschmidt of the Ministry of Health for advice in the field of nutritional health and to Dr Dorit Adler, Dr Kathleen Abu-Saad and Dr Ofra Kalter-Leibovici who were partners in devising the questionnaire on the Mediterranean diet.

Prof. Daniel Gottlieb

A handwritten signature in black ink, appearing to read 'D. Gottlieb', is written over a light gray grid background.

Deputy Director-General for Research and Planning

SUMMARY

The Food Security Survey 2016, whose findings are presented in this report, is the third survey conducted on a national scale at the Research and Planning Administration of the National Insurance. It differs from the two previous surveys in that this time the interviewees from 2011 and 2012 were contacted again, in order to ascertain the degree of continuity (permanence) of the food insecurity phenomenon, the exit from it or the entry into it in 2016. This time questions were also added about the interviewees' nutritional habits, with regard to the quality of the nutrition from the health aspect. As in the previous surveys, the response rate was approximately half (although we returned to the families who agreed to reply in the 2011 and 2012 surveys). A total of 6,226 families replied to the survey.

According to the findings, in 2016 **82.2%** of the families in Israel lived in food security and **17.8%** of the 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 well reflected in families with children, where the level of food insecurity decreased from rates of around 30% to rates of around 20%.

As in the previous findings, it was found that there is a considerable difference between the various populations in this sphere: 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 obtain them (see Figures 1 and 2 in Appendix 3).

With regard to characterization of the food insecurity phenomenon as an ongoing (permanent) phenomenon – the findings show that most of the families (92.4%) out of those who lived in food security 5 years earlier (2011-2012) also lived in food security in 2016, but that of those who lived in food insecurity in 2011-2012, **slightly less than half (44.7%) continued** to live in food insecurity in 2016 as well. That is to say, in a time-range of approximately 4 years the level of permanence of the food insecurity phenomenon amounts to almost half.

In the present survey we added a question about the composition of the interviewees' nutrition. The findings do not show significant differences in nutritional patterns between families who live in food security and those who do not.

Contents

Introduction	1
Construction of the sample, the research method and construction of the index.....	4
1. The sample	4
2. Description of the sample	5
3. Determination of the weights for 2016.....	7
4. Construction of the food insecurity index	9
General findings for 2016.....	10
5. Food security in the total population	10
6. Food security by population groups	13
7. Poverty and food security	18
8. Assistance from aid parties in the food sphere	23
Food insecurity over time.....	27
9. Remaining in an ongoing state of food insecurity.....	27
10. Model for examination of the family's chances of experiencing food insecurity and ongoing food insecurity	30
The families' nutritional habits.....	32
Appendices.....	37
Appendix 1: Differences between the 2011/12 surveys and the 2016 survey and estimate of the gap arising from them	37
Appendix 2A: Percentages of those living in food security and food insecurity in 2016, given the food security in 2011/12, individuals.....	39
Appendix 2B: Percentages of those living in food security and food insecurity in 2016, given the food security in 2011/12, children.....	39
Appendix 3: Additional information	40
Appendix 4: Process of construction of the food insecurity index	42
Appendix 5: The questionnaire	48

Introduction

The report presents the findings obtained from the national food security survey of 2016. This was the third national survey conducted by the Research and Planning Administration of the National Insurance Institute. In the first four chapters the research method is presented, and in Chapters 5 and 6 the results of the survey are presented on the national level and according to different population groups. In chapters 7 and 8 the results of the survey, which are based on administrative data of the National Insurance, are compared by meta-analysis with the results of the Dimensions of Poverty and Social Gaps Report, which are based on a survey of household expenses by the Central Bureau of Statistics. In other words, the sources of the information in the two surveys are independent of each other. Consequently, when a reasonable correlation can be found between the results of the two surveys with regard to economic hardship, the results receive statistical reinforcement.

The present survey differs from the two previous surveys which were conducted in 2011-2012: This time a new sample reflecting the total population was not taken, but the families who were sampled in the previous surveys were contacted again, also in order to ascertain the degree of continuity (permanence) of the food insecurity phenomenon (Chapters 9 and 10). In addition, this time we added a chapter about the quality of the nutrition (the last chapter), which seeks to obtain information about the nutritional habits of the interviewees. As in the two previous surveys, and although the population was the one which replied to the two previous surveys, only approximately half of those surveyed in 2011 and 2012 replied to the repeat questionnaire.

Food insecurity arising from economic difficulties in developed countries is defined as lack of regular access to food of sufficient quantity to enable a healthy and active life. The nature of food insecurity in developed countries is therefore usually different from food insecurity in poor countries, where food insecurity may become severe hunger which may lead to severe health damages.

The reductions in subsistence allowances at the beginning of the 2000s as part of the government's economic program as reflected in the Arrangements Law of that period, and the revelations in the media about an increase in the phenomenon of seeking aid in

the field of food consumption, led to the establishment of an inter-ministerial committee "to examine the State's responsibility to ensure the food security of its citizens". On the committee, which was headed by the Director-General of the Ministry of Welfare, there were representatives of the various government ministries, academics and representatives of other involved bodies and it submitted its recommendations in the full report which was published in March 2008. In the discussions, in which two representatives of the National Insurance Institute also participated, there was a conspicuous absence of an organized and up-to-date database enabling knowledge of the extent and severity of the phenomenon of food insecurity. It will be mentioned that during the years 1999-2001 the Ministry of Health (the National Center for Disease Control and Food and Nutrition Services) conducted the first national health and nutrition survey among a representative sample of the population aged 25-64. In this survey food consumption and nutrition patterns in Israel were examined. However, the perception of households with regard to food insecurity was not examined on a national scale. In 2003 the Brookdale Institute conducted a study in cooperation with the Ministry of Health, which examined the issue of food insecurity and the connection between it and nutritional patterns of households, and for the first time provided country-wide estimates of the problem. However since then the problem has not been examined, although the economic policy which was introduced at the beginning of the 2000s, under which the subsistence (income support) and child allowances were reduced, constituted a possible accelerator for the expansion and deepening of the phenomenon of food insecurity.

In recent years a decision was made at the National Insurance Institute that the Research and Planning Administration of the Institute, which for the last four decades has dealt, inter alia, with processing and publication of poverty and inequality data in Israel, would undertake the examination of the food security situation in Israel from time to time.

The findings of the two previous surveys showed that there is significant correlation between the dimensions of poverty according to the measurement in the Dimensions of Poverty and Social Gaps Report, which are measured according to the level of net monetary income of the families, and the level of food insecurity reported by the interviewees. The incidence of poverty of families in Israel has decreased slightly in

recent years but continues to stand at approximately a fifth of the families, a quarter of the individuals and a third of the children in 2016. The extent of poverty in Israel remains one of the highest in the developed countries.

As in the previous surveys, also in this survey the rate of response was about half the interviewees (despite the return to families who had already replied about five years ago). The method of questioning was telephonic, and the questionnaire (which is attached as Appendix 5) was based on a similar questionnaire developed by the United States Department of Agriculture (USDA). The questionnaire is based on a wide range of subjective feelings and behaviors, which form a basis for development of an index for the different levels of severity of food insecurity. Various demographic and socio-economic questions adapted to the economy and society in Israel were added to this core questionnaire. As stated, we added a section to the present questionnaire on quality of nutrition from the health aspect, which investigates the nutritional habits of the families. The response level to this section was relatively low, as can be seen in the last chapter.

In the next chapter, Chapter B, the research method will be presented. It will set out the manner of constructing the sample, analysis of the failure to reply and construction of the weights for the purpose of determining the representation of the total population by the families who came up in the sample. Later details will be given of the manner in which the food insecurity index was calculated.

Chapter C will present details of the findings arising from the survey with regard to the level of food security of the population in Israel according to population groups and geographical and other sections, the degree of reliance on outside parties in order to overcome the problem of food insecurity, the severity of the insecurity and the connection between the level of poverty and the reported level of food insecurity in different population groups.

Chapter D concentrates on estimating the permanence of the food insecurity phenomenon as it appears from the present survey together with the surveys which were conducted in 2011 and 2012, and presents data on the level of food insecurity over time among families of different types.

Chapter E presents the findings of the section relating to the nutritional habits of the families, and its connection to the level of food security of the families.

The appendices attached to this publication present in detail the differences between the two surveys which are being compared (the 2011-2012 survey compared to the 2016 survey), the point system for determining who is in a state of food security and who is not, and the full questionnaire.

Construction of the sample, the research method and construction of the index

1. The sample

As in the surveys of 2011 and 2012, for the purposes of the survey a family (or household)¹ is defined as a unit of a single person or couple with children up to the age of 24 (if the children are not married). The adult with the highest income from work is defined as the head of the household.

The families included in the study are of adults aged 18 and above², and each individual sampled was questioned about the entire household³. The National Insurance Institute's computer files, which contain comprehensive information about demographic and employment characteristics of the population residing in Israel, served as the sampling framework. The survey was conducted in the months of February to June 2016, with about a third of the households being surveyed in each of the months of March, April and May and a small number of households in the months of February and June.

The number of adults (18+) in the family is the parents (married couple or single) and the number of children aged 18-24 who are not married, arising from the assumption that most unmarried children of those ages live at home.

¹ In this publication the use of the term "family" overlaps with the term "household" and in both cases is defined as stated at the beginning of this chapter.

² The sample omitted individuals aged 65 or above who were not members of a HMO and individuals who stayed abroad for more than 90 days, on the assumption that these are individuals who are not alive or do not live in Israel.

³ In the few cases in which two individuals from the same household came up in the sample, only the first of them was taken.

As the present survey is based on those who agreed to answer out of all the families who agreed to answer in the two previous surveys, and only about half of them agreed (that is to say, the size of the sample is similar to that of each of the years 2011 and 2012), a new sampling was not done. In addition, in the survey there is a bias towards older families, as 4-5 years have passed since the last sampling of those families. Therefore there are also implications for the indices of the survey at the national level, as the weight of families headed by an elderly person, who are characterized by greater food security, increased, as is set out below.

2. Description of the sample

Table 1 presents the number of those sampled according to the number of adult individuals in the household, and Table 2 describes the sample which was obtained according to demographic characteristics.

Table 1: Number of households sampled according to the number of adult individuals in the household, 2016

	Total	1	2	3	4	5+
Number of families	6,226	1,267	3,348	781	515	315
Percentages	100.0	20.3	53.7	12.5	8.3	5.0

Of approximately 6,200 households which were surveyed, in approximately three-quarters of them there was /were one or two adults (Table 1). Approximately 62% of the sample consisted of families without children, while most of the families with children had two children (Table 2). In accordance with the manner of construction of the sample and as mentioned above, the age composition of the sample tilts toward the older ages compared to the samples of the surveys which were conducted in 2011-2012. So for example the percentage of households in which the head of the household is aged up to 30 decreased from 26% in 2011-2012 to 14% in 2016 and the percentage of households in which the head of the household is of retirement age increased from 17% to 28% between the two data sources. Other demographic characteristics of the sample – the percentage of men, Arabs, immigrants and married couples, and the geographical distribution of the residential districts have not changed significantly between the two data sources (Table 2).

Table 2: Demographic characteristics of the households which replied, 2011-2012 compared with 2016

	2011-2012		2016	
	Number of observations	Percentage of the observations	Number of observations	Percentage of the observations
Total	12,294	100.0	6,212	100.0
Men	5,872	47.8	2,882	46.4
Arabs	1,485	12.1	560	9.0
Immigrants since 1990	1,814	14.8	888	14.3
Married	6,763	55.0	483	7.8
Number of adult individuals in the household				
1	1,960	15.9	1,252	20.2
2	6,055	49.3	3,339	53.8
3	1,933	15.7	771	12.4
4	1,292	10.5	512	8.2
5 or more	932	7.6	310	5.0
Number of children in the household				
0	6,683	54.4	3,835	61.7
1	1,833	14.9	638	10.3
2	1,690	13.7	740	11.9
3	1,156	9.4	522	8.4
4 or more	443	3.6	260	4.2
Interviewee's age group				
Up to 30	3,138	25.5	854	13.7
31-45	3,624	29.5	2,034	32.7
46-retirement	3,420	27.8	1,610	25.9
Retirement age	2,108	17.1	1,712	27.6
Residential district				
Jerusalem	1,139	9.3	562	9.0
North	1,922	15.6	939	15.1
Haifa	1,574	12.8	783	12.6
Center	3,199	26.0	1,653	26.6
Tel Aviv	2,624	21.3	1,347	21.7
South	1,455	11.8	727	11.7

3. Determination of the weights for 2016

As stated, the sample is based on households which were sampled and surveyed in the two previous food security surveys. In the previous surveys weights were determined so that each survey represented the total population (see details of the manner of calculation of the weights in the previous survey publications). Therefore if the response to the present survey had been full, the weight of each observation in this survey would have been determined at half the weight determined for it in the previous survey. However, in determining the weights it is necessary to take into account the partial response rates and the difference in response rates according to demographic characteristics.

Therefore in this survey the weights were determined on the basis of the previous surveys, which were inflated according to demographic characteristics in the following manner: 1) the sample was divided into groups according to demographic characteristics: age, nationality and immigration 2) in each group the sum of the weights of the observations which did not respond was divided equally among the observations which responded and added to the value of their original weight.

Table 3: The sample by population groups (weighting of families), 2016 (absolute numbers and percentages)

	Number of families	Percentage of the population
Total	2,904,165	100.0
Jews	2,452,038	84.4
Ultra-Orthodox	158,025	5.4
Non-Ultra-Orthodox Jews	2,294,013	79.0
Arabs	431,531	14.9
East Jerusalem	55,351	1.9
Elderly people	838,746	28.9
Immigrants since 1990	489,235	16.8
Immigrants since 2000	96,177	3.3
Families with children	1,196,917	41.2
1-2 children	656,582	22.6
1-3 children	913,289	31.4
4 or more children	255,662	8.8
5 or more children	116,604	4.0
Single parent	83,739	2.9
Two –parent	1,085,212	37.4
Up to the age of 30	393,002	13.5
Age 31-45	997,936	34.4
From the age of 46 to retirement age	760,836	26.2
Above retirement age	751,563	25.9
Up to 8 years' education	277,674	9.6
9-12 years' education	1,135,607	39.1
13 or more years' education	1,490,883	51.3
Working family	2,385,657	82.1
Non-working family of working age	201,963	7.0
Sole breadwinner	982,989	33.8
2 or more breadwinners	1,402,668	48.3
Pension/allowance recipients (not including child allowance)	1,221,486	42.1
Income support recipients	63,563	2.2
Disability pension recipients	330,158	11.4
Jerusalem District	291,731	10.0
Northern District	444,541	15.3
Haifa District	370,671	12.8
Central District	747,547	25.7
Tel Aviv District	603,010	20.8
Southern District	352,887	12.2

* Elderly people: Interviewees aged 62 or above for women and 67 or above for men.

4. Construction of the food insecurity index

The process of constructing the index, which, as stated, was constructed in accordance with the structured questionnaire of the United States Department of Agriculture (USDA)⁴, is presented in detail in the previous publications on the subject. Inter alia, the questionnaire contains 18 core questions intended to ascertain the level of food security of the family. First the households answered a series of questions about their feeling of food insecurity and their experience of such situations. The questionnaire was arranged so that the households were first asked about less serious situations of food insecurity and gradually, in accordance with the answers, they were asked about more serious situations. Slightly different questionnaires were constructed for families with children and families without children. The months of carrying out the interviews were in the first half of 2016 (January-June)⁵.

In order to determine the points for the families on the food security scale, their answers were encoded as "positive" (code- 1) or "negative" (code- 0). In cases where there were three possible answers – "usually", "sometimes" and "never"- the first two answers were combined into a "positive" answer. Likewise, also in the questions to which the answers were "nearly every month", "a number of months per year" and "only one or two months per year", the first two answers were regarded as a positive answer. The answers were totaled and on the basis of the final result each household was assigned to one of the following four categories on the food security scale:

1. Food security
2. Mild/moderate food insecurity
3. Food insecurity with moderate hunger
4. Food insecurity with severe hunger

For the purposes of the study the last two categories were combined into one category of "significant food insecurity". Families living in a state of mild food insecurity expressed

⁴ See further details in the appendices of the two previous publications of the National Insurance : Food Security Survey 2011 and Food Security Survey 2012

⁵ As the core questions of the food security questionnaire relate to the last year (Appendix 5), the food security situation (and not the other variables) relates, on average, to the end of 2015-beginning of 2016.

some concern about the supply of food and the food budget, and families living in a state of significant food insecurity expressed great concern about the food budget and supply.

It will be mentioned that the food insecurity index which was used in the previous surveys of 2011 and 2012 was slightly different from the one used in the 2016 survey. The change was made in order to make the method of calculation exactly resemble the American one in 2016 and as a result of this the test for determining who suffers from food insecurity was stricter in 2011 and 2012 than in the present survey, which in this regard is similar to the American survey. For this reason, and because this difference cannot be corrected ex post facto, and also for the reason that the present sample is definitely composed of an older population (by about five years on average), and therefore the demographic composition is different – it is not possible to make a direct comparison between the results of the survey in 2016 and those in 2011 and 2012, but it is definitely possible to learn about trends. See details of this and an estimated quantification of these differences between the two survey systems in Appendix 1.

General findings for 2016

5. Food security in the total population

The findings presented in this chapter compare the level of food security in different segments in 2016 with **integration** of the data of the 2011-2012 surveys. The comparison between the two surveys is **not "clean"**, both because of the change in the method of investigation and because of demographic differences between the populations (see Appendix 1, which also presents an estimate of this gap). The comparisons from here onwards therefore hint at trends rather than absolute differences between the numbers.

The data in Table 4 show that in 2016 82.2% lived in food security, that is to say 17.8% lived in food insecurity. Of them about half (8.8%) lived in severe food insecurity. These

percentages are lower than the percentages which existed approximately five years ago (2011/12 surveys)⁶.

Table 4 (and Figure 1) below also show that as in the previous period, also in 2016 about half of all those living in food insecurity experience significant food insecurity (8.8% out of 17.8%). Also among individuals the level of food security rose between the two periods, and according to the survey 18.2% of the individuals and 25.5% of the children live in food insecurity. While among families and adult individuals the percentage of those living in moderate food insecurity is similar to those living in significant food insecurity, among the children the percentage of those living in significant food insecurity is higher: approximately 55% of the children who live in food insecurity were ranked at the level of significant food insecurity. However, like the situation of families, an improvement in the level of food security between the two periods is also noticeable among individuals and children.

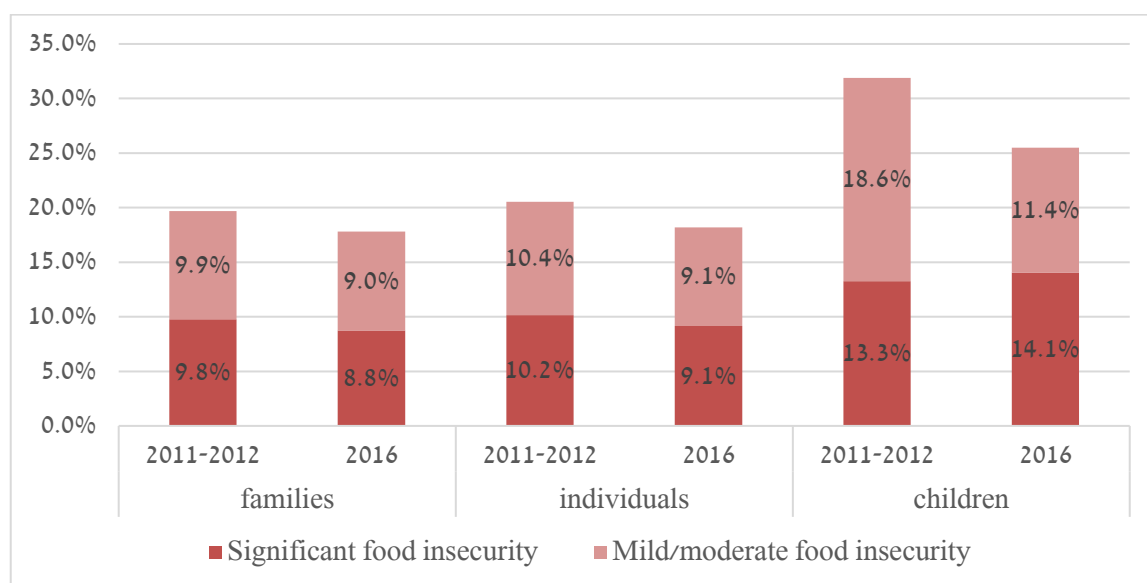
The aforesaid improvement in food security in the population between the two periods – 2011/12 compared with 2016 – is in line with the decrease in the percentage of poor families and in the Gini index of income inequality which were recorded in the Dimensions of Poverty and Social Gaps Reports of the National Insurance in the period 2011 to 2016. So for example, according to the Poverty Report the average percentage of poor families in 2011/12 was 19.7% and it decreased to 18.5% in 2016.

⁶ The increase in the level of food security compared with 2011/2012 should have indicated an even greater improvement if the findings had been comparable (Appendix 1).

Table 4: Level of food security in all the families, individuals and children in the population (absolute numbers and percentages)

	Families		Adult individuals		Children	
	Total (thousands)	Percentage of the population	Total (thousands)	Percentage of the population	Total (thousands)	Percentage of the population
2011/12						
Food security	2,326	80.3	4,194	79.5	1,711	68.1
Mild/moderate food insecurity	287	9.9	548	10.4	468	18.6
Significant food insecurity	283	9.8	536	10.2	333	13.3
2016						
Food security	2,367	82.2	4,294	81.8	1,862	74.5
Mild/moderate food insecurity	261	9.0	475	9.1	286	11.4
Significant food insecurity	252	8.8	480	9.1	352	14.1

Figure 1: Types of food insecurity among families, adult individuals and children, 2011-2012 and 2016



6. Food security by population groups

In this section we will present the level of food security by segmentation according to different population groups. Table 5 shows the level of food security in families with children. As stated, there has been a significant decrease in the level of food insecurity of this population, but the percentage of families with children in which the food insecurity is severe, among all the families suffering from food insecurity, is higher than in the previous surveys (50% compared with 45% respectively). The level of food security rose in all the compositions of families with children, and in contrast to 2011/12, when the large families suffered from food insecurity at the highest rate, in 2016 the single-parent families are the ones who suffer from it at the highest rate (36.7%- more than a third), and also from the highest level of significant food insecurity. Among the large families (4+ children) a sharp decrease was recorded in the level of food insecurity, but it is not only influenced by the trend of decrease in poverty and food insecurity, but also by the different composition of the families between the two periods: the percentage of families with 5 or more children decreased from about 8% in 2011/12 to about 5% in 2016 because of the return to the same families and aging of the population between the years.

Table 5: Level of food security in families with children, 2011/12 and 2016 (percentages)

Type of family	Families		Adult individuals		Children	
	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity
2011/12						
Families with children	29.1	13.1	29.1	13.2	32.7	14.6
Families with 1-3 children	25.3	10.6	25.1	10.7	24.6	9.8
Families with 4 or more children	47.1	25.0	48.4	25.3	46.9	23.1
Single-parent	46.3	21.1	46.7	22.1	47.6	18.5
2016						
Families with children	20.4	10.1	21.0	10.6	25.6	14.2
Families with 1-3 children	17.5	8.3	18.5	9.1	21.9	11.5
Families with 4 or more children	31.1	16.9	30.4	16.9	31.2	18.5
Single-parent	36.7	18.2	37.6	18.1	51.8	30.1

Table 5 also shows that like the general trend, in the single-parent families there was also a significant increase in the level of food security, which amounts to approximately 37% according to the 2016 survey data. However they "rose" to first place with regard to their level of food insecurity compared with the other families with children. The level of severe food insecurity in those families is even higher than that of large families (4 or more children) and amounts to 18.2% of the families (compared with 16.9% in large families), although these are usually small families, albeit with only one breadwinner.

Table 6: Food insecurity rates by age, 2011/12 and 2016 (percentages)

Age of head of household	Families		Adult individuals		Children	
	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity
2011/12						
Up to the age of 30	16.8	7.8	17.0	8.1	31.2	13.4
31-45	25.4	11.6	26.2	11.9	32.6	13.6
46 to retirement	22.1	13.6	22.7	13.9	34.0	21.1
Retirement age	12.2	8.6	12.5	8.6	17.9	17.9
2016						
Up to the age of 30	15.2	6.1	15.5	6.4	19.0	10.3
31-45	19.3	9.4	20.0	9.7	25.4	13.1
46 to retirement	22.5	12.8	22.5	13.2	27.3	16.8
Retirement age	12.4	5.3	12.0	5.1	23.8	11.6

As in 2011/12, also in 2016 a state of food insecurity mainly characterizes families at the child-rearing stage (Table 6). The data of the table show that the food security level of families at the extremes – young (up to the age of 30) or elderly (at retirement age) is the highest, while the food security of the middle-aged families is lower. However, the positions of the two middle groups, the younger one (age of head of household 31-45) and the older one (age of head of household 46 to retirement age) have been reversed, and in 2016 the highest food insecurity was in fact in the older group, as well as the highest level of severe food insecurity- 13% of the families in the group in which the head of the household was aged 46 to retirement age. The food insecurity rates among the elderly amount to 12.5%, with 5.4% of the families headed by an elderly person experiencing severe food insecurity.

Table 7: Level of food insecurity of families in selected population groups, 2011/12 and 2016 (percentages)

	Families		Adult individuals		Children	
	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity
2011/12						
<u>Total</u>	19.9	10.6	20.7	11.0	32.5	14.7
Jews	14.9	7.3	15.0	7.1	22.4	8.1
Arabs	48.7	29.7	48.9	30.0	61.9	34.1
Ultra-Orthodox	28.6	11.7	29.0	11.4	41.3	14.0
Elderly	10.9	8.2	11.4	8.3	13.9	13.9
<u>Immigrants:</u>						
Since 1990	17.0	7.7	17.2	7.5	9.4	1.6
Since 2000	25.1	10.4	26.2	9.6	10.3	0.0
<u>Employment status:</u>						
Head of household of working age does not work	47.9	31.3	49.2	31.8	83.3	52.6
Head of household works	18.6	9.0	19.2	9.2	29.0	11.4
One breadwinner	26.8	14.3	28.3	15.1	45.6	20.0
Two or more breadwinners	12.4	5.0	12.8	5.1	16.6	4.9
<u>Number of years' education of head of household:</u>						
Up to 8 years' education	34.8	23.5	38.6	25.3	62.7	47.1
9-12 years' education	27.8	14.6	28.1	14.7	44.4	19.6
13 or more years' education	10.1	4.3	10.4	4.4	18.6	6.3
<u>Pension/allowance recipients (not including child allowance):</u>						
Income support recipients	52.7	33.4	54.2	33.9	77.2	50.2
Disability pension recipients	36.2	21.8	37.4	22.5	52.4	29.8
2016						
<u>Total</u>	17.8	8.8	18.2	9.2	25.5	14.1
Jews	13.5	5.8	13.2	5.7	17.0	6.8
Arabs	42.4	25.9	42.5	26.4	50.6	35.3
Ultra-Orthodox	21.9	8.2	21.7	9.0	26.3	10.4
Elderly	13.0	5.7	12.8	5.7	20.7	9.4
<u>Immigrants:</u>						
Since 1990	14.7	5.7	14.5	5.4	19.8	5.2
Since 2000	15.9	4.8	16.9	4.5	21.5	8.1
<u>Employment status:</u>						
Head of household of working age does not work	38.5	22.5	38.5	23.8	50.6	29.1
Head of household works	16.1	7.7	16.5	8.0	22.7	12.3
One breadwinner	25.4	13.4	26.5	14.0	42.1	26.7
Two or more breadwinners	9.7	3.8	9.9	4.1	11.9	4.3

<u>Number of years' education</u>						
<u>of head of household:</u>						
Up to 8 years' education	29.1	16.9	30.5	18.3	54.4	41.0
9-12 years' education	24.7	12.8	24.9	13.3	37.8	22.3
13 or more years' education	10.4	4.2	10.6	4.2	12.8	4.8
<u>Pension/allowance recipients</u>						
<u>(not including child</u>						
<u>allowance):</u>						
Income support recipients	53.0	40.6	55.3	42.0	76.4	65.0
Disability pension recipients	35.7	21.4	37.0	22.6	43.6	25.9

Table 7 shows the rates of food insecurity by population groups. As can be seen, despite the aforesaid difficulty in making a simple comparison between 2011/12 and 2016 from the numerical aspect, the trends have remained similar: income support recipients and Arab families are characterized by a higher rate of food insecurity, while among income support recipients the number of children suffering from food insecurity amounts to 76.4%, that is to say the great majority of children in these families suffer from food insecurity. Also among Arabs, as among families with a household head with a low level of education (up to 8 years' education) and households of working age without a breadwinner - there is some overlap between these populations - the number of children suffering from food insecurity is about half. The main development which should be mentioned is the sharp decrease in the rate of food insecurity among the ultra-Orthodox population: in 2011/12 their rate of food insecurity was approximately 29%, and this rate decreased to approximately 22% in 2016. In view of the difference in the investigation method which has been set out, the "real" decrease should have been even greater.

Table 8: Level of food insecurity by district, 2011/12 and 2016 (percentages)

Residential district	Families		Adult individuals		Children	
	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity	Food insecurity	Of this: Significant food insecurity
2011/12						
Jerusalem	29.9	16.5	30.4	16.8	48.2	25.6
North	28.7	15.3	29.7	16.2	45.4	20.5
Haifa	19.3	9.9	20.1	9.9	30.0	13.9
Center	14.7	7.8	14.6	7.7	18.0	8.4
Tel Aviv	14.5	8.1	15.4	8.3	23.1	9.4
South	21.1	11.4	22.1	11.9	36.8	16.9
2016						
Jerusalem	22.6	11.3	23.1	11.5	35.6	19.9
North	21.3	12.0	22.1	12.9	33.0	18.8
Haifa	21.9	9.7	21.4	9.6	27.2	14.4
Center	14.7	7.3	14.9	7.5	19.3	10.7
Tel Aviv	14.3	6.8	14.9	7.1	18.8	7.9
South	17.5	9.4	18.2	9.8	31.3	21.1

7. Poverty and food security

Another aspect of the analysis of the food insecurity of the various population groups is the poverty indices of those groups and examination of the correlation between the indices. Generally, in 2016 the food insecurity rate is slightly lower than the poverty rate (17.8% compared with 19.1% respectively) already at the level of the total population, and this is expressed in most of the population groups. Figure 2 shows that there is congruence between the location of the groups on the two scales: the groups characterized by high poverty (Arabs, those with a low level of education, families without a breadwinner) are also those which suffer from relatively high food insecurity.

However, there are also differences which became sharper in the 2016 survey compared with the previous surveys: in single-parent families and in families receiving a disability pension the rates of food insecurity are significantly higher than the incidence of poverty of those families, while in the ultra-Orthodox families the situation is the opposite. Part

of the explanation may be the health expenses which families receiving disability pensions have, which leave them with a relatively low disposable income for consumption of goods and services, including food products.

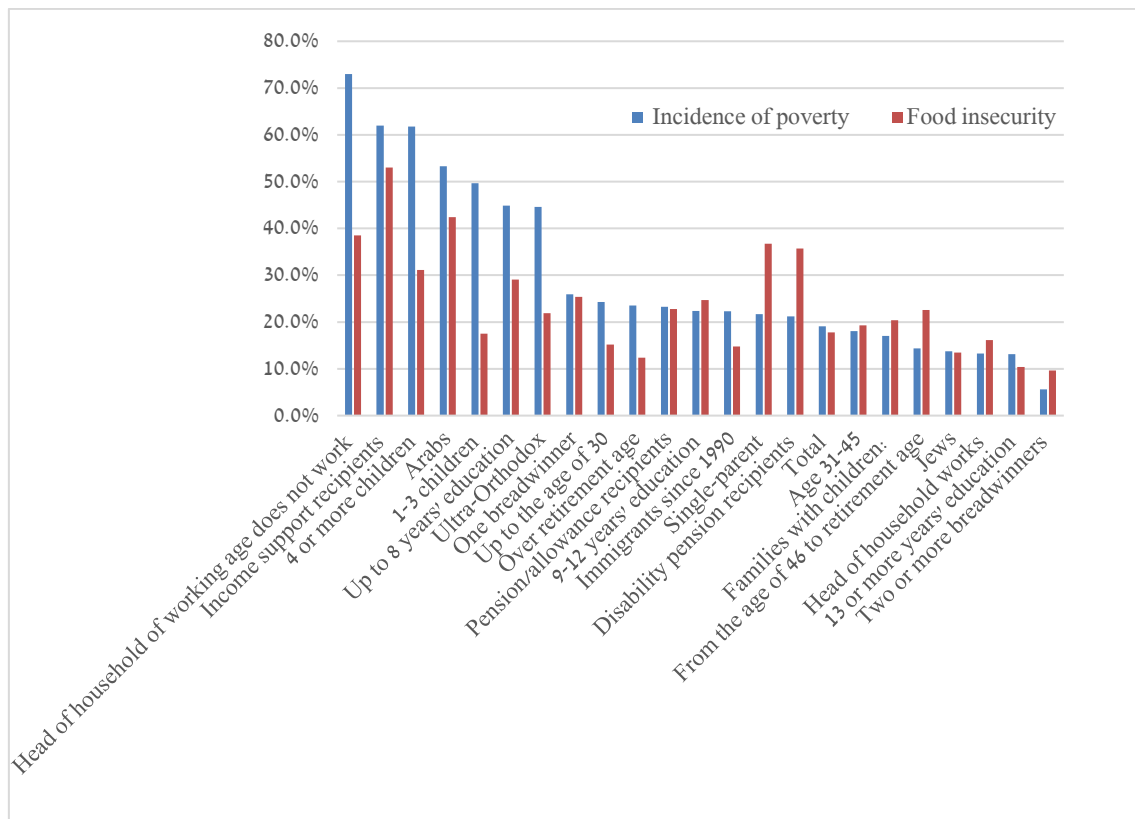
With regard to the ultra-Orthodox population – as was also mentioned in the previous surveys which were conducted – the explanation of the gap between the objective poverty (which is measured in the Poverty Reports of the National Insurance Institute) and the subjective poverty (as measured for the purpose of this study) lies in a number of possible factors: the far greater reliance of families in this population group on aid from the community, especially in the food sphere (see the section on "Assistance from aid parties" below, which shows that the percentage of those assisted by organizations and families in the ultra-Orthodox population is much higher than the average, even among those who live in food security); consumption patterns which emphasize the food sphere and relatively high allocation of resources to this sphere compared with other consumption spheres; and perhaps values and beliefs associated with being satisfied with little or with gratitude for the existing situation.

Table 9: Rate of food insecurity, incidence of poverty of families, depth of poverty (income gap ratio) and severity of poverty (FGT)*, by population groups, 2016

	Food insecurity	Of this: Significant food insecurity	Incidence of poverty-Families	Depth of poverty	Severity of poverty (FGT)
Total	17.8	8.8	19.1	35.7	17.9
Jews	13.5	5.8	13.8	32.6	16.0
Arabs	42.4	25.9	53.3	39.3	20.0
Ultra-Orthodox	21.9	8.2	44.6	36.3	17.9
Immigrants since 1990	14.7	5.7	22.3	36.9	18.2
<u>Families with children:</u>	20.4	10.1	17.0	33.7	16.1
1-3 children	17.5	8.3	49.7	40.2	20.4
4 or more children	31.1	16.9	61.8	41.3	21.0
Single-parent	36.7	18.2	21.7	35.3	17.0
<u>Age of head of household:</u>					
Up to the age of 30	15.2	6.1	24.3	36.0	19.2
Age 31-45	19.3	9.4	18.1	37.3	18.8
From the age of 46 to retirement age	22.5	12.8	14.3	36.3	18.0
Over retirement age	12.4	5.3	23.5	26.0	10.2
<u>Employment status:</u>					
Head of household of working age does not work	38.5	22.5	73.0	52.0	33.4
Head of household works	16.1	7.7	13.3	32.8	14.9
One breadwinner	25.4	13.4	25.9	34.8	15.9
Two or more breadwinners	9.7	3.8	5.6	28.4	12.7
<u>Number of years' education of head of household:</u>					
Up to 8 years' education	29.1	16.9	44.9	38.9	20.4
9-12 years' education	24.7	12.8	22.3	35.8	17.8
13 or more years' education	10.4	4.2	13.2	34.5	17.1
<u>Pension/allowance recipients (not including child allowance):</u>					
Income support recipients	22.8	12.5	23.2	32.6	14.8
Disability pension recipients	53.0	40.6	61.9	37.6	18.3
	35.7	21.4	21.2	31.9	13.8

*The poverty data relate to the year 2015

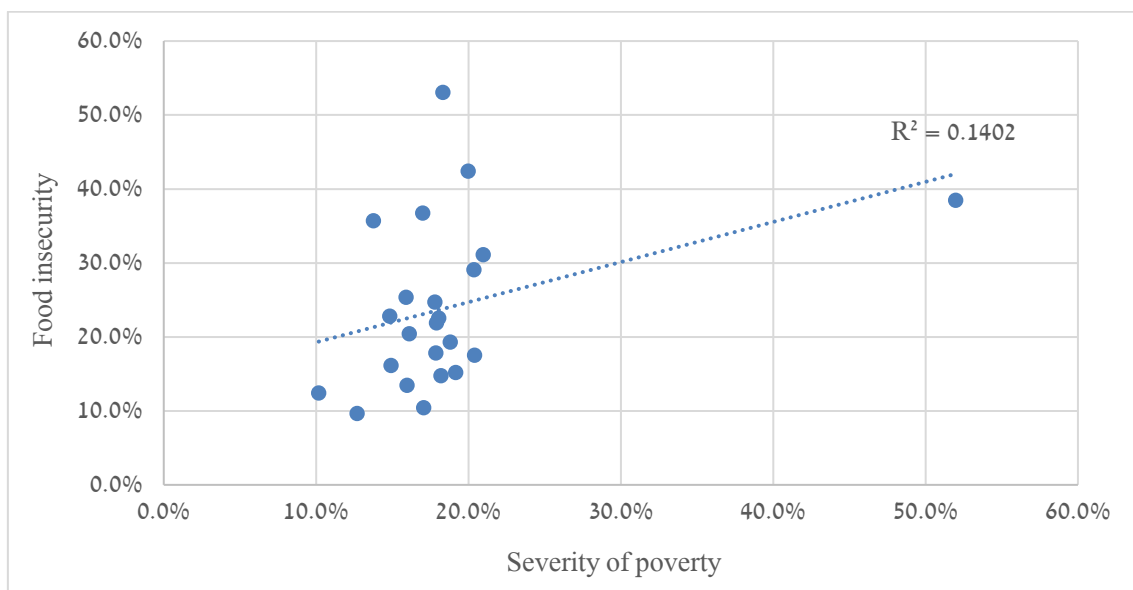
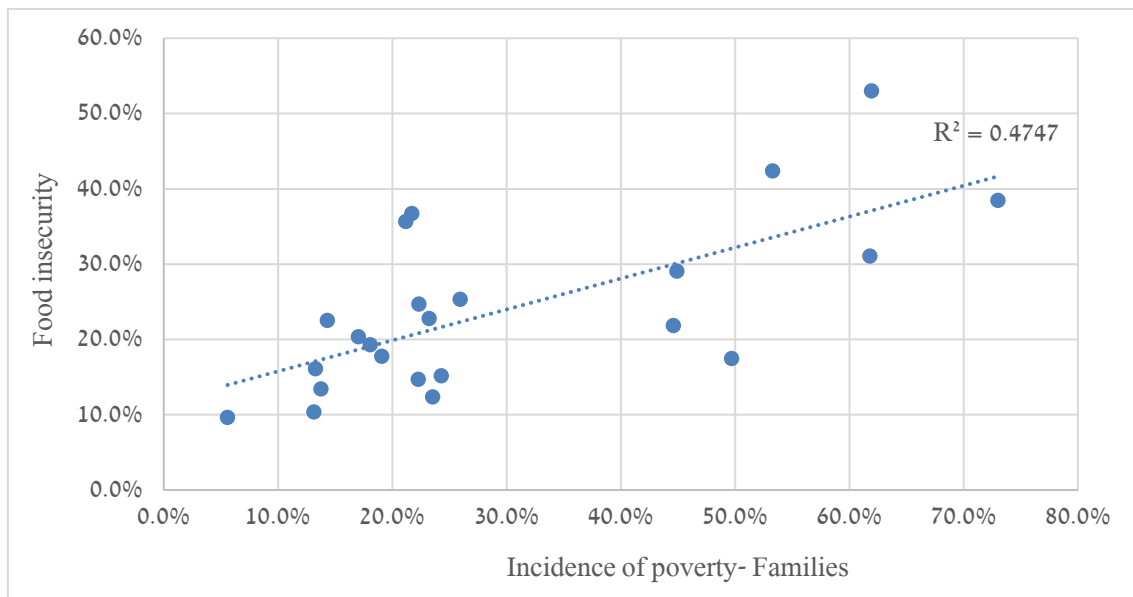
Figure 2: Rates of food insecurity of families and rates of incidence of poverty in the corresponding population groups, 2016*



* The poverty data relate to the year 2015

It can also be seen that the level of depth of poverty is greater than the corresponding level of food insecurity and severity of poverty in the total population (of course taking into account all the differences in sampling and investigation methods in the two data sources). However, the trends may be different and generally the strongest correlation is between the incidence of poverty index and the food insecurity index, compared with the other poverty indices shown (depth of poverty and severity of poverty). Figure 3 illustrates this: the correlation between incidence of poverty and food insecurity amounts to approximately 45% in 2016, whereas the correlation with the severity of poverty is lower and only amounts to approximately 14%.

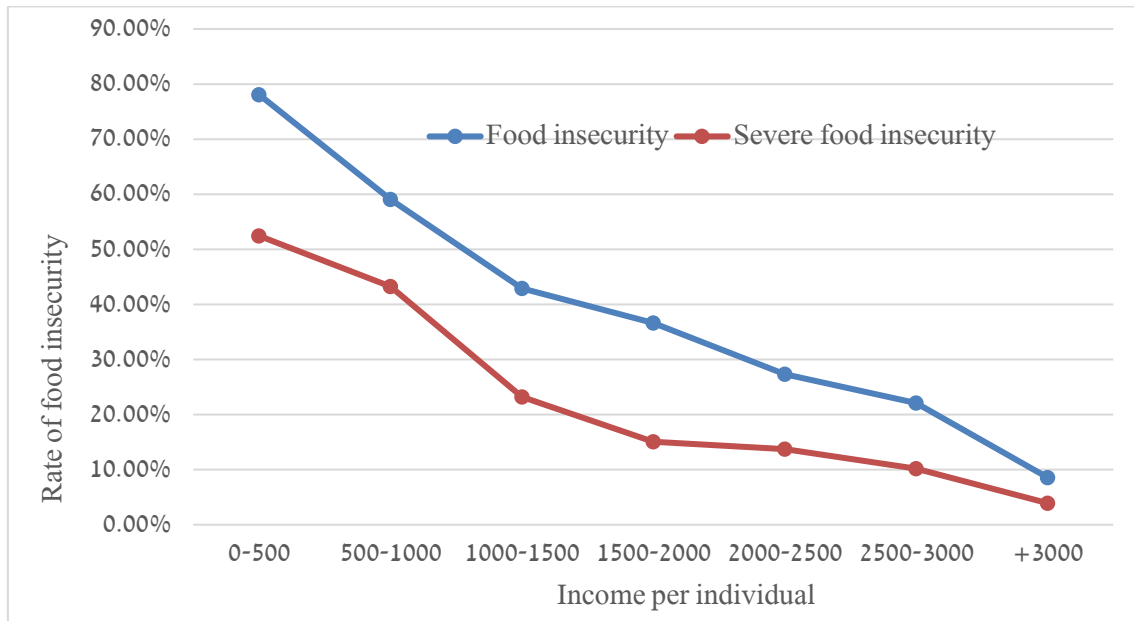
Figure 3: Distribution of population groups by incidence of poverty and severity of poverty compared with food security, 2016



The participants in the survey were also asked about their income (the answers related to income ranges which were determined in advance, see Appendix 5- the survey questionnaire). For the purpose of examining the income per individual the income was extrapolated in a manner which assumed that the income falls in the range between the minimum and the maximum in each income group, and then the income was divided by the number of individuals in the household. Figure 4 shows that, as expected, the food insecurity is in inverse proportion to the income per individual: at the level of income per individual of lower than NIS 500 per person the level of food insecurity amounts to

approximately 80% and the level of severe food insecurity is higher than 50%, whereas at the level of income per individual of NIS 3000 or more per person the food insecurity is low and severe food insecurity is almost zero.

Figure 4: The relation between income per individual (NIS per month) and experiencing food insecurity, 2016



*A similar picture is also obtained when the income per standard individual is calculated

8. Assistance from aid parties in the food sphere

Tables 10 and 11 below show, with regard to the total population and with regard to groups in the population (respectively), the results of the survey with regard to the degree of assistance which families at different levels of food security receive from aid organizations and relatives.

The findings of the table show that among those characterized by food security the degree of assistance from aid parties decreased greatly and amounts to only approximately 5%, compared with assistance at much higher rates about five years ago. However, among those who do not live in food security the degree of assistance is very similar to 2011/12 (approximately 58% compared with 55%). The number of those living in moderate food insecurity and assisted by aid parties amounts to approximately 40%, whereas among those with significant food insecurity this number jumps to

approximately two-thirds of the families in 2016, with the overwhelming majority being assisted by their families and approximately 19%, who are a third of those in a severe food security situation who receive assistance, being supported by aid organizations.

Table 10: Assistance from outside parties in order to improve level of food security, 2011/12 and 2016

Level of food security in the family	2011/12		2016	
	Percentage assisted by aid organizations or family	Of this: Assisted by aid organizations	Percentage assisted by aid organizations or family	Of this: Assisted by aid organizations
Live in food security	17.0	1.6	5.2	0.9
Live in food insecurity	58.3	12.1	55.1	14.5
Of this:				
Live in mild food insecurity	54.5	10.5	43.5	9.9
Live in significant food insecurity	62.2	13.9	67.7	19.5

Table 11 shows the percentage of those assisted by aid organizations and family according to population groups. It can be seen that among the families living in food insecurity, the percentage of those assisted by aid organizations or by families is highest among the ultra-Orthodox. This trend is particularly noticeable among those who in fact live in food security. While the average number of those in this population who are assisted amounts to approximately 5%, among the ultra-Orthodox it is 3 times higher, or more (16.6%). Among those who live in food insecurity the number of those assisted amounts to approximately 55%, as stated – compared with a higher number, of approximately 62%, in the ultra-Orthodox population. Also among single-parent families and income support allowance recipients (a partly overlapping population), the number of those living in food insecurity who are assisted is much higher than the average – approximately 68%.

In the Arab population the percentage of those in the two groups (those who live in food security and those who do not) who are assisted is similar to the average and among immigrants (since 1990) and the elderly it is lower than average.

Table 11: Percentage of families in food security and mild and significant food insecurity who are assisted by aid organizations or by family, by population group, 2011/12 and 2016

	2011/12				2016			
	Food security Assistance from:		Food insecurity (mild or significant) Assistance from:		Food security Assistance from:		Food insecurity (mild or significant) Assistance from:	
	family or from	orgs.	family or from	orgs.	family or from	orgs.	family or from	orgs.
	orgs.	orgs.	orgs.	orgs.	orgs.	orgs.	orgs.	orgs.
Total	16.9	1.5	61.7	13.8	5.3	1.0	54.6	13.0
Jews	16.5	1.7	61.3	18.1	5.2	1.1	54.5	16.8
Arabs	20.7	0.4	62.8	6.8	5.5	0.7	54.9	6.5
Ultra-Orthodox	31.5	11.7	87.9	56.8	16.6	10.0	63.1	40.3
Elderly	15.0	1.1	52.2	10.3	3.7	0.6	45.7	11.6
Immigrants:								
Since 1990	17.2	2.7	51.4	9.6	4.9	1.0	43.5	9.5
Since 2000	24.3	2.3	52.3	5.3	5.6	1.0	37.7	7.5
Employment status:								
Head of household of working age does not work	31.7	6.4	81.4	28.2	4.2	1.8	61.7	18.4
Head of household works	15.0	1.3	60.5	12.9	5.6	1.0	54.0	12.3
One breadwinner	21.1	1.9	62.6	14.9	7.4	1.3	55.9	12.7
Two or more breadwinners	11.1	1.0	57.0	9.7	4.6	0.9	50.4	11.5
Number of years' education of head of household								
Up to 8 years' education	27.2	2.7	58.5	10.0	7.0	1.5	46.1	10.7
9-12 years' education	17.2	1.4	61.3	13.4	6.1	0.7	58.5	14.5
13 or more years' education	14.9	1.4	65.3	18.2	4.5	1.1	51.9	11.4
Pension/allowance recipients (not including child allowance)	19.3	2.4	58.8	15.9	5.6	1.2	55.3	17.2
Income support recipients	31.1	10.2	63.9	20.9	10.7	1.5	68.5	24.0
Disability pension recipients	22.1	2.5	62.9	19.7	9.5	1.2	59.8	22.8
Families with children	17.1	2.2	63.2	15.2	6.8	1.5	57.6	13.8
Families with 1-3 children	16.0	1.4	59.5	12.4	5.3	0.4	56.8	11.5
Families with 4 or more	24.6	7.2	72.0	22.4	13.3	6.5	60.2	18.8

children									
Single-parent	27.0	3.6	63.6	22.7	7.6	0.0	68.3	18.3	
Up to the age of 30	21.7	1.5	72.0	14.5	8.1	0.9	59.7	7.9	
31-45	17.4	1.9	63.8	14.1	6.0	1.2	59.8	15.2	
46-retirement	11.0	1.6	57.2	15.0	4.6	1.4	51.5	12.7	
Retirement age	17.1	1.0	46.2	8.5	3.5	0.5	46.4	12.4	
Jerusalem	20.4	3.9	71.1	21.0	7.3	2.5	49.1	13.0	
North	18.5	1.1	58.5	11.1	4.9	0.9	56.0	12.8	
Haifa	16.2	1.3	56.1	9.4	4.6	0.3	50.7	7.6	
Center	14.4	1.4	62.8	14.1	5.3	0.9	54.5	13.6	
Tel Aviv	16.5	1.0	58.1	15.4	4.3	0.9	57.7	13.1	
South	18.0	1.6	62.8	11.8	6.1	1.2	61.2	15.9	

Food insecurity over time

As stated, as the sample is based on families who responded in the surveys of 2011 and 2012, we can draw conclusions about the degree of constancy (permanence) of the food insecurity phenomenon among families of different types. It will be mentioned that unlike the previous chapters, in this chapter alone the food security index was calculated similarly to the calculation which was done in 2011/12, to enable a direct comparison between the two periods (see the method chapter and Appendix 1). It will also be mentioned that we do not have information about the years between the two periods. Therefore it may be that some of the families to whom we will refer as living in "permanent" food insecurity (that is to say, at the two points in time) experienced better times in between (and the opposite). The analysis is therefore limited to those two points in time with all the limitations which that involves.

9. Remaining in an ongoing state of food insecurity

Table 12 shows the percentage of families who escaped from, remained in and entered a state of food insecurity. The findings show that 92.4% of those who lived in food security 5 years earlier (2011/12) also live in food security in 2016. Of those who lived in food insecurity in 2011/12, slightly less than half (44.7%) also continued to live in food insecurity in 2016. The significance of this is that nearly half of those who suffer from food insecurity suffer from it over time. On looking at food insecurity at the most severe level, approximately 37% of those who lived in severe food insecurity in 2011/12 also remained in that state in 2016. Assuming that at least some of them suffered from this phenomenon continuously, this is a phenomenon which is likely to have grave health implications.

Table 12: Percentages of those in food security and food insecurity in 2016, given the food security in 2011/12

Food security in 2016:	Food security in 2011/12			Of this: Significant food insecurity
	Total	Food security	Food insecurity	
Food security	85.4	92.4	55.3	46.8
Food insecurity	14.6	7.6	44.7	53.2
Of this: Significant food insecurity	7.2	3.0	25.5	36.7

In Table 13 the findings are presented according to population groups in a slightly different form: the table shows the percentage of families living in ongoing food security compared with those living in ongoing food insecurity, those who have exited from the state of food insecurity recently (2016) and those who have entered this state in the same period. In this manner each line adds up to 100%. From the table data we see that among Jews approximately 81% live in "ongoing" food security according to the definitions which were applied in this chapter, whereas among Arabs only half of this number (approximately 43%) enjoyed this. Also among the elderly, families with two breadwinners and those with a high level of education the percentage of those living in ongoing food security is higher than in the total population and exceeds 80%.

In contrast to this, among subsistence allowance recipients and households whose heads (of working age) do not work the percentage of those enjoying ongoing food security amounts to approximately half of this.

Table 13: Food security situation over time by types of families, 2016 compared with 2011/12

	Ongoing food security	Ongoing food insecurity	Exit from food insecurity	Entry into food insecurity
Total	74.9	8.5	10.5	6.2
Jews	80.7	5.4	8.8	5.2
Arabs	42.5	26.0	19.8	11.7
Ultra-Orthodox	65.0	10.3	15.7	9.1
Elderly	83.0	4.6	7.8	4.7
Immigrants:				
Since 1990	77.5	5.6	11.5	5.4
Since 2000	74.6	5.3	12.2	8.0
Employment status:				
Head of household of working age does not work	49.5	22.9	16.7	10.9
Head of household works	76.5	7.6	10.2	5.8
One breadwinner	67.0	12.6	11.8	8.7
Two or more breadwinners	83.1	4.1	9.1	3.7
Number of years' education of head of household:				
Up to 8 years' education	57.2	14.6	19.8	8.5
9-12 years' education	64.4	13.1	14.6	7.9
13 or more years' education	86.2	3.8	5.6	4.4
Pension/allowance recipients (not including child allowance)	71.7	10.8	10.0	7.5
Income support recipients	43.5	35.6	11.5	9.4
Disability pension recipients	54.1	19.3	16.1	10.6
Families with children	68.3	12.3	13.1	6.2
Families with 1-3 children	72.4	10.4	12.1	5.2
Families with 4 or more children	54.3	20.1	15.9	9.7
Single-parent	54.6	24.6	11.9	9.0
Up to the age of 30	75.6	5.7	12.0	6.7
31-45	70.9	10.3	12.0	6.9
46-retirement	71.1	11.6	10.8	6.5
Retirement age	83.6	4.4	7.4	4.5
Jerusalem	69.0	12.3	12.9	5.7
North	67.6	12.4	14.7	5.3
Haifa	73.1	9.4	8.7	8.7
Center	79.5	6.4	8.3	5.8
Tel Aviv	79.0	6.2	8.8	6.0
South	74.1	8.2	12.0	5.7

10. Model for examination of the family's chances of experiencing food insecurity and ongoing food insecurity

Table 14 presents logistic regression results for the probability of experiencing food insecurity in 2016 and for being in that state in 2016 for families who were in food insecurity in 2011/12- that is to say for being in a state of ongoing food insecurity- according to the definitions which we adopted in this research report. The figures presented are the relative chances of each characteristic being in a state of food insecurity in 2016 (first columns of numbers) or in both years (second column).

The findings of the table show that Arabs have 4.7 times the chance of experiencing food insecurity in 2016 and 10.6 times the chance of being in a permanent state of food insecurity compared with the rest of the population, when a series of other explanatory variables are controlled. On average, each additional child increases the chances of experiencing temporary food insecurity by 24% and the chances of experiencing permanent/ongoing food insecurity by 25%. Single-parent families and disability pension recipients also have 2.5-3 times the chance of experiencing a state of food insecurity and for income support recipients those chances even increase to more than 3 times and even 4 times in the case of food insecurity as a permanent state, in comparison with the total population.

The findings also show that with control of the other variables, the influence of education on the chances of temporary and permanent food insecurity is negative commencing from post-secondary education. Immigrants have 25% higher chances of experiencing temporary food insecurity (in 2016) than the rest, and approximately 40% higher than the rest in the case of ongoing food insecurity. The chances of families with two or more breadwinners being in a situation of food insecurity in 2016, either temporary or permanent, are approximately two-thirds less.

Table 14: The chances of experiencing a state of food insecurity – results of logistic model

	Relative chances of experiencing food insecurity	
	2016	Ongoing: Both in 2011/12 and in 2016
Family with children	0.86	1.22
Number of children	1.24***	1.25***
Single-parent	2.54***	2.96***
Head of household aged 31-45	1.14	1.33
Head of household aged 46 to retirement	1.35**	1.96***
Head of household at retirement age	0.65**	1.24
Jewish	1.60	3.35
Ultra-Orthodox	1.38*	1.20
Arab	4.75***	10.62**
Immigrant (from 1990 onwards)	1.24*	1.42**
Secondary education	0.86	0.80
Post-secondary education	0.37***	0.30***
Of working age and does not work	1.18	1.22
One breadwinner	0.97	1.01
Two or more breadwinners	0.39***	0.44***
Pension/allowance recipients (except income support and disability)	1.44***	1.14
Income support recipient	3.13***	4.16***
Disability pension recipient	2.77***	2.81***
Jerusalem District	1.14	2.04*
Northern District	1.20	2.31**
Haifa District	1.43	1.99*
Central District	1.20	1.78
Tel Aviv District	1.16	1.66
Southern District	1.06	1.75
Disposable income per individual above NIS 1500	0.89	0.79**

*p<0.01; **p<0.05; ***p<0.1

The families' nutritional habits

In the questionnaire of the 2016 survey a section was added for the purpose of examining the food insecurity situation not only from the quantitative aspect, but also from the qualitative aspect - in other words, the types of foods consumed by the families, and not only the question of whether there is enough food.

The reason for this lies in the fact that the quality of the nutrition determines health no less than the quantity of the nutrition. Recently, as a result of changes in the food system in the world in general and in Israel in particular, more and more households, mainly those belonging to the lower socio-economic class, tend to base their diet on processed and ultra-processed foods, some of which are high in caloric density but lack nutritional value.

The response to this section, which contained a relatively large number of questions (a series of food items with a request for information about the frequency of consumption of each group) was low. Only about a third of the families replied to this section of the questionnaire (in comparison with more than 99% in the quantitative section – the questionnaire which examines the food security situation).

However, in this chapter two tables are presented which set out the results of those who did reply. The first table, Table 15, presents the average frequency of consumption of the various food items, with a distinction between families characterized by food security and those who are not. The second table, Table 16, attempts to ascertain the characteristics of those whose nutrition is composed of the "Mediterranean diet". In this survey the Mediterranean index is calculated according to 14 food items which constitute the main recommendations for the Mediterranean diet.

It will be mentioned that as the elderly population hardly replied to this section, the results relate to working-age families only.

The data in Table 15 show that in general the differences in food consumption between those in food insecurity and the contrast group are not great. It can be seen that the

consumption of grains of all kind (both white bread and whole wheat bread) is similar, but the consumption of fresh fruit and vegetables and wholegrain breakfast cereals is lower among those who live in food insecurity than among those who live in food security. However, the consumption of organic food is slightly higher among those living in food security and consumption of some of the sweets is lower. A similar trend is found with regard to olive oil, because of the high consumption among Arabs, whose level of food security is low. On the other hand, the consumption of sweetened drinks and chocolate spread was found to be lower among those lacking food security.

However, when we attempt to explain with the aid of a multivariable model, which explains the tendency to consume Mediterranean food (on a scale of between 0-14, as will be recalled), it can be seen that among families with children, of any number of children, the Mediterranean diet is more widespread (Table 17). Trends of a slightly higher tendency to consume Mediterranean food were found among educated people (0.15 – as stated, on a scale of 0-14) and a slightly lower tendency among Arabs and among those living in food security (0.12), but the strengths in this case are very low, despite the significance of the data.

Table 15: Frequency of food consumption by type of food: Percentage of families who consume the food item at least once a week

Food item	Total	In food security	In food insecurity
Chicken or turkey, frozen or fresh	72.8	73.7	68.7
Portion of beef, veal or mutton	45.0	46.6	38.1
Fish (tuna, Nile perch, hake, etc.)	45.1	47.1	35.9
Processed meat products, such as: chicken or turkey schnitzel, patties, sausages, hamburgers and kebabs	20.2	19.3	23.9
Eggs	82.1	83.5	75.7
Loaf of white bread	59.7	59.9	59.1
Loaf of whole wheat bread	52.9	57.1	32.5
Pita from white flour	47.7	45.1	58.7
Whole wheat pita	13.8	13.9	13.3
Fresh fruit juice, purchased or squeezed- no. of liters	61.7	61.3	63.3
Fresh fruit of all kinds	91.9	94.0	82.6
Fresh or frozen vegetables (not including potato, corn, sweet potato)	94.9	96.3	88.9
Milk	95.0	95.0	94.7
Yoghurt, leben or milk pudding	78.1	79.8	70.2
Yellow cheese of all kinds	75.5	77.7	65.9
Whole grain breakfast cereals (such as bran flakes)	18.7	20.1	12.0
Other breakfast cereals (such as cornflakes or Cheerios)	34.5	33.6	38.1
Legumes (peas, hummus, beans, lentils)	42.0	40.2	49.9
Brown rice/whole grain pasta/noodles, buckwheat, barley, burghul, couscous, freekeh	26.1	26.2	25.4
White rice/non-whole grain semolina/pasta/noodles	54.4	54.1	55.5
Potatoes/corn/sweet potatoes	80.1	79.6	82.2
Margarine or butter	37.9	38.8	33.5
Olive oil	32.1	31.6	34.5
Other oil (except coconut oil or palm oil)	47.6	47.5	47.9
Seeds, nuts	39.7	41.4	31.8
Chocolate spread	35.2	34.0	40.7
Drinks sweetened with sugar (including fizzy)	49.9	48.4	56.3
Salty pastries, such as burekas, malawach/pizza	28.8	28.8	28.8
Cake or cookies	55.2	56.2	50.9
Chocolate snack and all other sweet snacks	51.4	52.1	48.6
Organic food (fruit, eggs, meat)	11.3	10.9	13.1

Table 16: Mediterranean diet score by household characteristics

	Mediterranean diet – amended score*
Total	8.85
Jews	9.06
Arabs	8.09
Ultra-Orthodox	8.70
Immigrants:	
Since 1990	9.62
Since 2000	9.47
Employment status:	
Head of household of working age does not work	9.53
Head of household works	8.80
One breadwinner	8.78
Two or more breadwinners	8.81
Number of years' education of head of household	
Up to 8 years' education	8.30
9-12 years' education	8.56
13 or more years' education	9.11
Pension/allowance recipients (not including child allowance)	8.88
Income support recipients	9.53
Disability pension recipients	8.60
Families with children	8.84
Families with 1-3 children	8.96
Families with 4 or more children	8.42
Single-parent	9.71
Up to the age of 30	8.73
31-45	8.83
46-retirement	8.89
Jerusalem	9.10
North	9.25
Haifa	8.45
Center	8.79
Tel Aviv	8.98
South	8.64

*This score ranges between the values of 0 and 14. As some of the interviewees did not answer some of the questions, in order to maintain the range of these values, the questions required for calculation of the score which the individual did not answer were not taken into account and the score which was calculated was divided by the number of criteria capable of calculation and multiplied by 14, in other words the score was amended in accordance with the number of answers of each interviewee.

Table 17: Regression results explaining the degree of correspondence of the household's nutrition with the Mediterranean diet

Characteristics	Coefficient (standard deviation)
In food security	-0.124** (0.0566)
Arab	-0.121* (0.0672)
Ultra-Orthodox	0.229*** (0.0830)
Immigrant	0.00146 (0.0521)
Up to 8 years' education	0.0839 (0.0662)
13 or more years' education	0.152*** (0.0390)
Jerusalem District	-0.0402 (0.115)
Northern District	0.0764 (0.110)
Haifa District	-0.0503 (0.111)
Central District	0.0772 (0.105)
Tel Aviv District	0.00546 (0.107)
Southern District	0.0868 (0.112)
Single-parent	0.144 (0.111)
Head of household aged 31-45	0.220*** (0.0598)
Head of household aged 46 to retirement age	0.110* (0.0605)
Head of household at retirement age	-0.0114 (0.0764)
Family with 1-3 children	5.506*** (0.0492)
Family with 4+ children	5.738*** (0.0804)
Head of household does not work	-0.315*** (0.0971)
Sole breadwinner	-0.0403 (0.0683)
Two or more breadwinners	0.105 (0.0703)
Pension/allowance recipient	-0.106* (0.0563)
Income support recipient	0.179 (0.137)
Disability pension recipient	0.0166 (0.0684)
Disposable income per individual above NIS 1500	0.110 (0.191)
Intercept	-0.00352 (0.229)
Number of observations	6,179
R-squared	0.802

***p<0.01, ** p<0.05, * p<0.1 Mediterranean diet score ranges between the values of 0 and 14 in accordance with the degree of correspondence of the household's nutrition with the Mediterranean diet. This table shows linear regression results explaining this score by means of characteristics of the household.

Appendices

Appendix 1: Differences between the 2011/12 surveys and the 2016 survey and estimate of the gap arising from them

The index in the present survey imitates the American index exactly, while in 2011/12 the conditions for transition to the later stages of the questionnaire were slightly more stringent. In addition, the demographic composition of the two surveys is different from the age aspect. The details of the two differences are as follows:

- A. In the transition of the interviewees who answered the questions from Stage A to Stage B, and from Stage B to Stage C (see the sample questionnaire in the appendix) – in the previous surveys the transition was only possible if the interviewees gave positive answers to all the questions in the previous stage – a more stringent condition than the conditions in the original American survey, in which it is sufficient to give a positive answer to one question in the previous stage to move to the next stage. As stated, in the 2016 survey we applied the approach of the original questionnaire, that is to say one positive answer by the interviewees is sufficient for the transition to Stage 2 or 3. According to estimates, the food insecurity data for 2011/12 should have been approximately 3 percentage points higher if we had applied the method of the 2016 survey.
- B. As we returned to the same families, the average age of the families in 2016 is about 4.5 years older, on average, than their average age in 2011/12. As food insecurity changes with the stage of life (and in particular, the elderly have a lower level of food insecurity), this could also influence the comparison between the two data sources. According to the estimate which was made, if not for older average age in the present survey, the food insecurity index for 2016 would have been approximately **one percentage point** higher.

From this it is evident that the "clean" difference in food insecurity between the two data sources (the 2011/12 survey and the 2016 survey) – if not for these two differences, which have offsetting effects (imperfect application of the American questioning

method in 2011/12 on the one hand and the demographic difference on the other hand) - is **approximately 2 percentage points** greater than the one actually obtained. In other words, the result according to which the rate of food insecurity in 2011/12 was approximately **20%** of the families in Israel should have been **23%** if we had applied the 2016 method of questioning exactly, and the result according to which the rate of food insecurity in 2016 is approximately **18%** (Table 4) of the families in Israel should have been **19%** if not for the aging of the sample. This means that according to a rough estimate, if the data had been comparable, the decrease in food insecurity among families in the total population should have been 4 percentage points and not 2 percentage points.

Appendix 2A: Percentages of those living in food security and food insecurity in 2016, given the food security in 2011/12, individuals

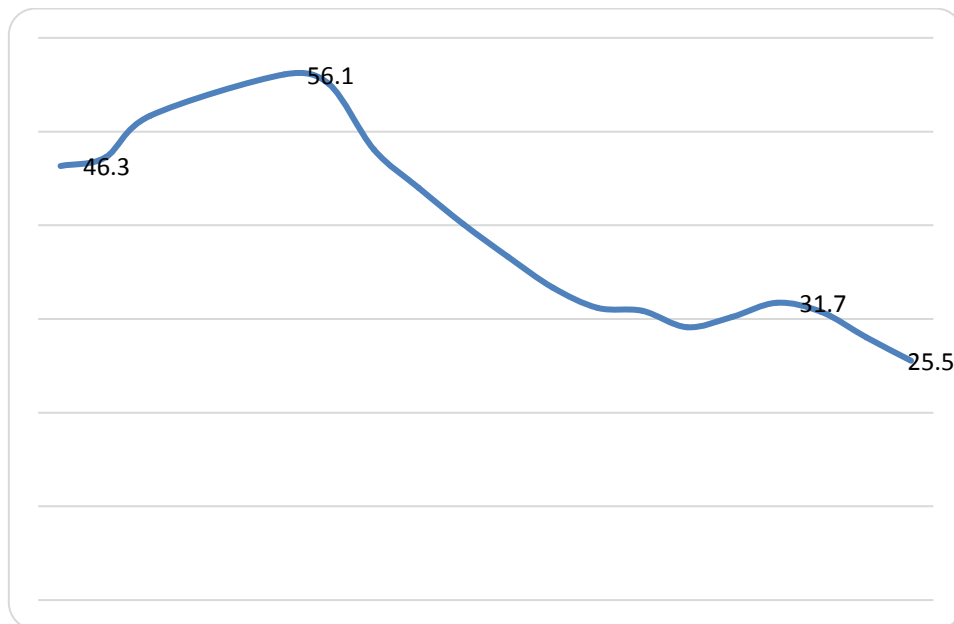
	Food security in 2011/12			Of this: Significant food insecurity
	Total	Food security	Food insecurity	
Food security in 2016:				
Food security	84.9	92.2	55.6	47.5
Food insecurity	15.1	7.8	44.4	52.5
Of this: Significant food insecurity	7.5	3.0	25.5	36.7

Appendix 2B: Percentages of those living in food security and food insecurity in 2016, given the food security in 2011/12, children

	Food security in 2011/12			Of this: Significant food insecurity
	Total	Food security	Food insecurity	
Food security in 2016:				
Food security	76.5	90.7	45.9	31.5
Food insecurity	23.5	9.3	54.1	68.5
Of this: Significant food insecurity	11.8	3.2	30.6	48.9

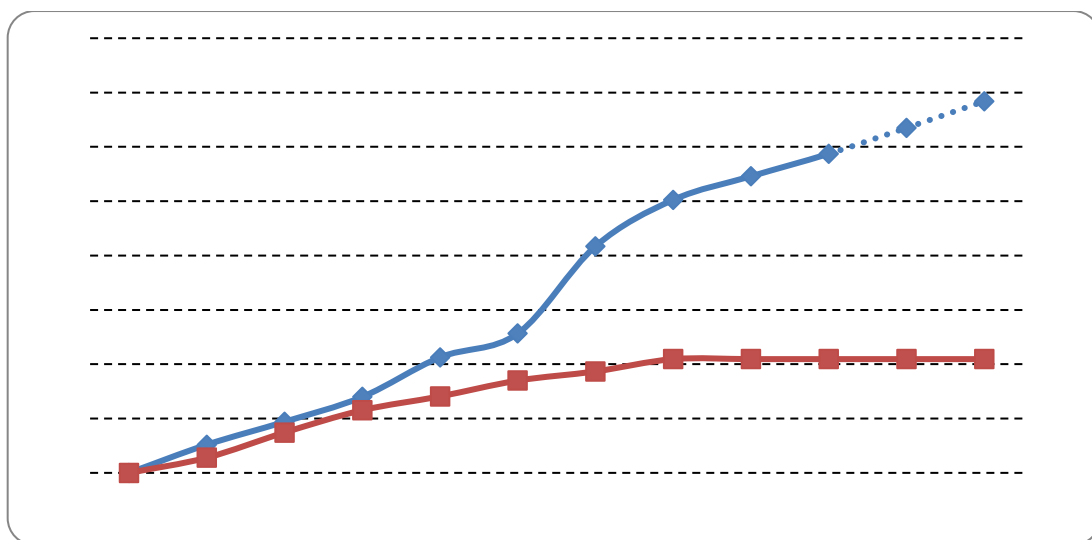
Appendix 3: Additional information

Figure 1: Percentage of income support recipients among the families (in which the head of the household is of working age) living in poverty, 1997 to 2016



Source: Income support recipients- administrative data; number of poor families – Dimensions of Poverty and Social Gaps Report, 2016

Figure 2: National Insurance pension/allowance advancement index compared with increase in standard of living by net median income, 1997 to 2016



Blue – Median income index
Red – Pension/allowance advancement index 2006

Source: Pension/allowance advancement index according to the increases in the consumer price index; median income index - Dimensions of Poverty and Social Gaps Report, 2016

Level of food insecurity of families in selected population groups, according to the method of calculation corresponding to the 2011/12 reports (percentages), 2016

Characteristics of the head of the household	Families	
	Food insecurity	Of this: Significant food insecurity
Jews	10.6	4.6
Arabs	37.7	22.1
Ultra-Orthodox	19.3	6.7
Elderly	9.2	5.0
Immigrants (since 1990)	11.0	4.3
Employment status:		
Head of household of working age does not work	33.8	19.4
Head of household works	13.3	6.2
One breadwinner	21.2	10.6
Two or more breadwinners	7.8	3.2
Pension/allowance recipients (not including child allowance)	18.3	10.8
Income support recipients	44.6	35.8
Disability pension recipients	29.9	18.7

*The data are presented for selected population groups only, which are less affected by the demographic differences between the systems of the two surveys (see further explanation in Appendix 1).

Appendix 4: Process of construction of the food insecurity index

A. The questions

The questionnaire is composed of three consecutive stages, with progress to the next stage being dependent on the answers to the questions in the stages which preceded it.

The questions in the Israeli survey from which the food insecurity index is constructed and the criteria for omitting them:

1. Zero stage: Questions 9, 10-20. It can be decided that this stage will be the criterion for complete omission of those with high incomes (income of double the poverty line) or it may be added to the criterion for omission of the second stage.
2. First stage: Questions 21-25
3. Criterion for transition to the second stage⁷: if there was a positive answer to at least one of the questions in the first stage or the answer to question 9 was 3 or 4, move to the second stage, otherwise end the questionnaire (complete omission of the stage).
4. Second stage: Questions 26-31
5. Criterion for transition to the third stage: if there was a positive answer to at least one of the questions in the second stage, move to the third stage, otherwise end the questionnaire (complete omission of the stage).
6. Third stage: Questions 32-38.

B. Process of encoding answers

After there is a database, the answers must be encoded into "positive" and "negative". If for a particular question there are more than two options, the two most positive

⁷ In the 2011/12 surveys the condition for transition to the second and third stage was more rigid: only if all the questions in the previous stage were answered positively. See extensive details on the subject in the chapter on the method and the findings.

options are converted into one positive answer. The encoding is done in accordance with Table 1:

There are a number of encoding rules:

- Questions not answered because of complete omission are marked as negative.
- Questions not read to the interviewee (omitted) because of his previous answer ("negative") are marked as "negative" questions.
- Questions meant for families with children are marked as "missing" in families without children.
- Questions not answered for any reason ("don't know" or "refuse to answer"), except questions which were omitted (screened out), are marked as "missing".

Table 1: Encoding the answers to the survey for measurement of food insecurity

Question number	"Negative" answer Code -0	"Positive " answer Code - 1	Missing value Code -.
21	Not correct at all (<i>or complete omission because of the previous stage</i>)	Usually correct, sometimes correct	Don't know, refuse to answer
22			
23			
24			Don't know, refuse to answer, no children
25			
26	Not correct at all (<i>or complete omission because of the previous stage</i>)	Usually correct, sometimes correct	Don't know, refuse to answer, no children
27	No (<i>or complete omission because of the previous stage</i>)	Yes	Don't know, refuse to answer
28	Only 1 or 2 months, "no" to question 10 (<i>or complete omission because of the previous stage</i>)	Nearly every month, some months yes, some months no	Don't know, refuse to answer
29	No (<i>or complete omission because of the previous stage</i>)	Yes	Don't know, refuse to answer

Table 1 (continuation)

Question number (question in the US survey)	"Negative" answer Code -0	"Positive " answer Code - 1	Missing value Code -.
30	No <i>(or complete omission because of the previous stage)</i>	Yes	Don't know, refuse to answer
31			
32	No <i>(or complete omission because of the previous stage)</i>	Yes	Don't know, refuse to answer
33	Only 1 or 2 months, "no" to question 15 <i>(or complete omission because of the previous stage)</i>	Nearly every month, some months yes, some months no	Don't know, refuse to answer
34	No <i>(or complete omission because of the previous stage)</i>	Yes	Don't know, refuse to answer, no children
35			
36	Only 1 or 2 months, "no" to question 22 <i>(or complete omission because of the previous stage)</i>	Nearly every month, some months yes, some months no	Don't know, refuse to answer, no children
37	No <i>(or complete omission because of the previous stage)</i>	Yes	Don't know, refuse to answer, no children
38			

C. The process of ranking households with full answers and sorting them by level of food insecurity

a) Firstly it is necessary to examine whether there are missing values in the data. If there are such values, a tool which replaces the missing values with negative or positive values must be used, or a technique called Rasch must be used (if the proportion of missing values is small, a simple tool for replacement of the missing values can be used).

The measurement includes answers relating to families with children and families without children. For families with children there are 18 questions and for families without children there are 10 questions.

b) The next stage is calculation of the number of "positive" answers for each household. Afterwards Table 2 must be used and then the level of food insecurity of each household and the group to which it belongs are obtained.

Table 2: Values on the food insecurity scale and level of food security according to the number of positive answers

Number of "positive" answers		Value on the scale of the 1998 food security index ⁸	Level of food security	
Families with children	Families without children		Code	Level
0	0	0.0	0	Food security
1		1.0		
	1	1.2		
2		1.8		
	2	2.2		
3		2.4	1	Food insecurity without hunger
4		3.0		
	3	3.0		
5		3.4		
	4	3.7		
6		3.9		
7		4.3		
	5	4.4		
8		4.7	2	Food insecurity with moderate hunger
	6	5.0		
9		5.1		
10		5.5		
	7	5.7		
11		5.9		
12		6.3		
	8	6.4		
13		6.6	3	Food insecurity with hunger
14		7.0		
	9	7.2		
15		7.4		
	10	7.9		
16		8.0		
17		8.7		
18		9.3		

⁸ From: Measuring Food Security in the United States. Guide to Measuring Household Food Security: Food and Nutrition Service, USDA (2000)

Appendix 5: The questionnaire

Food insecurity survey questionnaire, 2016

Hello, my name is _____ and I am calling from the National Insurance. Have I reached _____?

We are conducting a telephonic survey on the subject of food consumption. Your telephone number came up in the sample by chance, as representing the population of Israel. Could you or another adult in the family give me a few minutes of your time?

.1 Opening questions

1. Religion

To the interviewer: Do not ask the question, but answer in accordance with what is recorded above.

1. Jewish
2. Other

. 2 Year of birth _____

3. Do the following live in the home permanently? (read out)

1. Couple with child/ren
2. Couple without child/ren
3. Parent +child/ren
4. Single person
5. Other, specify
6. Refuse to answer
7. Three generations (grandfather, father, child)

4. How many people live in the home permanently (the reference is to those who eat from a common food budget)? _____

.5 Number of adults aged 18 to 24: _____

. 6 What is your relationship to the head of the household (The head of the household is the person with the highest income. If there is no income from work – the oldest person)?

- .1 I am the head of the household
- .2 Spouse
- .3 Son
- .4 Daughter
- .5 Grandfather
- .6 Grandmother
- .7 Other, specify

.7 Are there children under the age of 18 in the home?

- .1Yes
- .2No

.8 How many? ___

The following questions refer to consumption of food in your home in the past year.

.9 Which of the following sentences best describes the food which was consumed in your home in the past year?

- .1 We have enough food of the kinds which we want to eat
- .2 We have enough, but not always of the kinds which we want
- .3 Sometimes not enough
- .4 Often not enough
- .5 Don't know
- .6 Refuse to answer

The following are a number of reasons why people do not always eat enough. With regard to each reason, please tell me if that reason applies to you.

.10 There is not enough money for food

- .1Yes
- .2No
- .3Don't know

11. There is not enough time for shopping or cooking

- .1Yes
- .2No
- .3Don't know

12 It is too difficult to get to the grocery store/supermarket

- .1Yes
- .2No
- .3Don't know

.13 One or more of the family members is on diet

- .1Yes
- .2No
- .3Don't know

.14 There is no working stove at home

- .1Yes
- .2No
- .3Don't know

.15 It is difficult to cook or eat because of health problems

- .1Yes
- .2No
- .3Don't know

- .16 There is not enough money for food
 - .1 Yes
 - .2 No
 - .3 Don't know
- .17 The type of food which I want is not available
 - .1 Yes
 - .2 No
 - .3 Don't know
- .18 There is not enough time for shopping or cooking
 - .1 Yes
 - .2 No
 - .3 Don't know
- .19 It is too difficult to get to the grocery store/supermarket
 - .1 Yes
 - .2 No
 - .3 Don't know
- .20 One or more of the family members is on diet
 - .1 Yes
 - .2 No
 - .3 Don't know

8. First stage of the food security index

I will read you some sentences which people have said about their food situation at home. With regard to each sentence, tell me whether in the last year, for you and your family, it was usually correct, sometimes correct or not correct at all.

	Usually correct	Sometimes correct	Not correct at all	Don't know	Refuse to answer
.21 "We were worried (I was worried) that we would finish the food before we would have money to buy more"					
.22 "The food which we bought was not enough, and we did not have money to buy more"					
.23 "We did not have enough money to eat balanced meals"					

9. New section

	Usually correct	Sometimes correct	Not correct at all	Don't know	Refuse to answer
.24					
"We relied on a number of cheap foods to feed the children, because we used up the money which was available to us" (question to families with children)					
.25					
"we could not give the children balanced meals because we did not have money"					

10. Second stage of the food security index

	Usually correct	Sometimes correct	Not correct at all	Don't know	Refuse to answer
.26					
"The children did not eat enough because we could not buy enough food"					
.27					
In the last year have you or other adults in the home reduced the size of meals or skipped meals because of lack of money to buy food?					
.1 Yes					
.2 No					
.3 Don't know					
.4 Refuse to answer					
.28 How frequently does this happen?					
.1 Nearly every month					
.2 Some months yes, some months no					
.3 Only one or two months during the year					
.4 Don't know					
.5 Refuse to answer					

.29 In the last year have you eaten less than you wanted because there was not enough money to buy food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.30 In the last year have you and other adults in the home been hungry and not eaten because you did not have enough money to buy food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.31 In the last year have you and other adults in the home lost weight because you did not have enough money to buy food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

14. Third stage of the food security index

.32 In the last year did you and other adults in the home not eat for a whole day because there was not enough money for food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

15. New section

.33 How frequently does this happen?

- .1 Nearly every month
- .2 Some months yes, some months no
- .3 Only one or two months during the year
- .4 Don't know
- .5 Refuse to answer

16. New section

.34 In the last year did you reduce the size of the child's/children's meals because there was not enough money for food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.35 In the last year did the child/children skip meals because there was not enough money for food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

17. New section

.36 How frequently does this happen?

- .1 Nearly every month
- .2 Some months yes, some months no
- .3 Only one or two months during the year
- .4 Don't know
- .5 Refuse to answer

18. New section

.37 In the last year was/were your child/children hungry and you could not buy more food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.38 In the last year, did the children in the home not eat for a whole day because there was not enough money for food?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

19. Additional questions about food security

.39 In the past year how often were you helped by family members or friends to obtain food for yourself or the members of your family?

- 1. Less than every week but at least once every month
- .2 In a number of months during the year, but not every month

- .3 Only one or two months
- .4 Never
- .5 Don't remember
- .6 Refuse to answer

.40 In the past year how often were you helped by a voluntary organization, which supplies food, to obtain food for yourself or the members of your family?

- .1 Less than every week but at least once every month
- .2 In a number of months during the year, but not in every month
- .3 Only one or two months
- .4 Never
- .5 Don't remember
- .6 Refuse to answer

.41 Do you receive aid (from a voluntary organization which supplies food) in the form of parcels of raw food items?

- .1 Yes
- .2 No

20. New section

.42

How frequently?

- .1 Approximately every week
- .2 In most of the months of the year
- .3 Only on religious holidays
- .4 Don't remember
- .5 Refuse to answer

.43 Do you receive aid (from a voluntary organization which supplies food) in the form of cooked food?

- .1 Yes
- .2 No

.44 How frequently?

- .1 On most days of the week
- .2 A number of times a month
- .3 Mostly on religious holidays
- .4 Don't remember
- .5 Refuse to answer

.49 During the last year did your child/ren have concentration and attention difficulties in class?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.51 How often do you forego buying special food or buy less of it because you do not have money for it due to economic hardship?

- .1 Does not happen
- .2 Seldom
- .3 Sometimes
- .4 Often
- .5 Always
- .6 Don't know
- .7 Refuse to answer

.52 In the last 3 months have you reduced or foregone consumption of food in order to purchase other products and services?

- .1 Yes
- .2 No
- .3 Don't know
- .4 Refuse to answer

.53 What is your height without shoes, in cm?

- .1 Refuse to answer
- .2 Don't know

.54 What is your weight today in kg (for pregnant women, ask about weight before the pregnancy)?

- .1 Refuse to answer
- .2 Don't know

27. Questions about nutritional consumption

28. New section

I will now read a list of foods to you. For each food which I read out, state in what quantity and how frequently the food is in the home **through receiving it by donation**. All the questions refer to the entire household.

29. New section

I will now read a list of foods to you. For each food which I read out, state in what quantity and how frequently you buy the food.

All the questions relate to the entire household.

30. New section

.55Chicken or turkey, frozen or fresh

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 How many kilos come into the home each time?

.56Portion of beef, veal or mutton

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 How many kilos come into the home each time?

.57Fish (tuna, Nile perch, hake, etc.)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 How many kilos come into the home each time?

.58Meat, chicken, turkey products such as schnitzel, patties, sausages, hamburgers and kebabs

To the interviewer: You must emphasize that this is food which is not made at home

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of units

.59Eggs

- .1 Daily
- .2 Weekly
- .3 Monthly

- .4 Less than once a month or not at all
- .5 Number of units

.60Packaged white bread

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of units

.61Packaged whole wheat bread

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of units

.62Pita made from white flour

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of units

.63Whole wheat pita

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of units

.64Portion of fruit

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Never
- .6 Number of units

.65Fresh fruit of all kinds

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 How many kilos come into the home each time?

.66 Fresh or frozen vegetables (not including potato, corn, sweet potato)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 How many kilos come into the home each time?

.67 Milk

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of liters.

.68 Yoghurt, leben or milk pudding

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of liters/grams

.69 Yellow cheese of all kinds

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of grams .

.70 Whole grain breakfast cereals (such as bran flakes)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of packages.

.71 Other breakfast cereals (such as cornflakes or Cheerios)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of packages.

.72 Legumes (peas, hummus, beans, lentils)

- .1 Daily

- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of kilograms.

.73 Brown rice/whole grain pasta/noodles, buckwheat, barley, burghul, couscous, freekeh

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of kilograms.

.74 White rice/non-whole grain semolina/pasta/noodles

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of kilograms.

.75 Potatoes/corn/sweet potatoes

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of kilograms.

.76 Margarine or butter

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of packages .

.77 Olive oil

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of liters.

.78 Other oil (except coconut oil)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of liters.

.79Seeds, nuts

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all
- .5 Number of kilograms.

.80Chocolate spread

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all

.81Drinks sweetened with sugar (including fizzy)

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all

.82Salty pastries, such as burekas, malawach/pizza

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all

.83Cake or cookies

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all

.84Chocolate snack and all other sweet snacks

- .1 Daily
- .2 Weekly
- .3 Monthly
- .4 Less than once a month or not at all

.85Do you drink red wine, not including at Kiddush?

- .1 Yes
- .2 No

32. New section

.86What is the average quantity per week?

- .1 4 glasses or more
- .2 1-3 glasses
- .3 Less than a glass

33.Demographic and financial position questions

.87What is your average net monthly family income from all sources (work, pension, allowances, capital, etc.)

- .1 Up to NIS 5,000
- .2 Between NIS 5,000 and NIS 10,000
- .3 Between NIS 10,000 and NIS 15,000
- .4 More than NIS 15,000
- .5 Refuse to answer

.88How much?

- .1 Up to NIS 1,000
- .2 From NIS 1,000 to NIS 2,000
- .3 From NIS 2,000 to NIS 3,000
- .4 From NIS 3,000 to NIS 4,000
- .5 From NIS 4,000 to NIS 5,000
- .6 From NIS 5,000 to NIS 6,000
- .7 From NIS 6,000 to NIS 7,000
- .8 From NIS 7,000 to NIS 8,000
- .9 From NIS 8,000 to NIS 9,000
- .10 From NIS 9,000 to NIS 10,000
- .11 From NIS 10,000 to NIS 15,000
- .12 From NIS 15,000 to NIS 20,000
- .13 Above NIS 20,000

.89What was the family expenditure on food in the last month?

- .1 Refuse to answer
- .2 Up to NIS 500
- .3 Between NIS 500 and NIS 1,000
- .4 Between NIS 1,000 and NIS 1,500
- .5 Between NIS 1,500 and NIS 2,000
- .6 Between NIS 2,000 and NIS 2,500
- .7 Between NIS 2,500 and NIS 3,000
- .8 Between NIS 3,000 and NIS 3,500
- .9 Between NIS 3,500 and NIS 4,000
- .10 Above NIS 4,000

.90In your opinion, what is the minimum net income on which your family could manage?

- .1 Up to NIS 1,000
- .2 From NIS 1,000 to NIS 2,000
- .3 From NIS 2,000 to NIS 3,000
- .4 From NIS 3,000 to NIS 4,000
- .5 From NIS 4,000 to NIS 5,000
- .6 From NIS 5,000 to NIS 6,000
- .7 From NIS 6,000 to NIS 7,000
- .8 From NIS 7,000 to NIS 8,000
- .9 From NIS 8,000 to NIS 9,000
- .10 From NIS 9,000 to NIS 10,000
- .11 Above NIS 10,000

.91 Number of breadwinners in the home (recipients of a salary from a place of work): _____

.92 Do any of the family members receive a pension/allowance/income supplement (except child allowance and maternity allowance) from the National Insurance?

- .1 Yes
- .2 No
- .3 Don't know

.93 Which pension/allowance (more than one answer may be marked)

- .1 Income support
- .2 Disability
- .3 Survivors
- .4 Old-age pension with income supplement
- .5 Old-age pension without income supplement
- .6 Unemployment benefit
- .7 Refuse to answer
- .8 Don't know
- .9 Other

.94 Please mark the appropriate answer for the abovementioned interview:

- .1 The interviewer spoke directly to the "marked respondent" (the one who came up in the random sample of couples)
- .2 The interviewer spoke to another member of the family, and he answered the questionnaire
- .3 The interviewer had to arrange another conversation with the "marked respondent" as he was not available – and managed to reach him
- .4 The interviewer had to arrange another conversation with the "marked respondent", but did not manage to reach him, and therefore interviewed someone else in his place

.95 Interviewee's comments:

.96 Interviewer's comments:

.97

Interviewer's name:
