

AM Partners Consulting Company
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SOCIAL SURVEY ON FOOD SAFETY PUBLIC AWARENESS: REPORT



**Agricultural PIU SA of the RA Ministry of
Agriculture
State Service for Food Safety of the RA
Ministry of Agriculture**



**AM Partners
Consulting Company**

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Abbreviations

GMOs	Genetically modified organisms
MoA	Ministry of Agriculture
WB	World Bank
RA	Republic of Armenia
SSFS	State Service for Food Safety

Explanations

Consultant	AM Partners Consulting Company LLC (www.ampartners.am)
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Social survey on food safety public awareness

Content

Project	Food Safety Capacity Building Project
Survey	Social Survey on Food Safety Public Awareness
Client	RA MoA Agricultural PIU

EXECUTIVE SUMMARY

The **Social Survey on Food Safety Public Awareness** was conducted within the Food Safety Capacity Building Project (hereinafter referred to as Project) financed by the Institutional Development Fund grant of the World Bank (WB). The Project was launched in 2012 by the Republic of Armenia (RA) Ministry of Agriculture (MoA) Agricultural Project Implementation Unit (Agricultural PIU) which is formally the client of the Survey. The Survey was conducted by the AM Partners Consulting Company LLC in February-June 2015. The beneficiary of the Survey results is the RA MoA State Service for Food Safety (SSFS).

This Survey ranges among the key Project activities. The need for such a survey arose from the 2 papers below published by WB Consultant Dan Petrescu Ph.D. in 2013:

1. Assessment of the Existing Situation with the Food Safety Communication;
2. Communication Strategy and Action Plan for the SSFS.

The both papers above shed light on the existing situation with the food safety awareness and communication in Armenia and suggest concrete steps to improve it. The Assessment Report covers specific recommendations on the information channels (television, radio, newspapers and magazines, outdoor informative signs, i.e. posters, leaflets, booklets and brochures) to facilitate communication between the SSFS and the public at large, as well as their top-rated forms and sources. However, with no precise information on the gaps in the food safety public awareness and the behavioral attributes of customers, the author refrained from suggesting any thematic directions for public awareness.

The potential solutions to this problem were covered in another paper by the Consultant, Communication Strategy and Action Plan for the SSFS, whereby he suggested **surveying the public opinion** and accordingly changing the strategy.

The Social Survey on Food Safety Public Awareness **serves as a resolution of the 2 issues below:**

1. The extensive quantitative survey of public awareness provides updated data to amend the SSFS communications strategy and action plan, and
2. It serves as a source database for regular monitoring of the food safety public awareness and current information needs.

The Social Survey on Food Safety Public Awareness used both the quantitative and qualitative survey **methods**. The quantitative survey covered the portion of the Armenian population aged 20 and older acting somehow as food-buyers. The sample comprised 1,066 people and was distributed proportionally to the population of Yerevan and 10 marzes (regions). The survey was conducted in 42 communities of the country, with 21 urban (including Yerevan) and 21 rural communities. Upon obtaining quantitative survey data, the Consultant performed a statistical analysis. As for the qualitative survey, 33 in-depth interviews were held in the target communities. While the interviews covered the questions in the quantitative survey questionnaire, the data were collected through free discussion method which contributed to the survey statistical data with in-depth analyses.

The **subject of the Survey** covers the food safety public awareness, confidence and behavior of food-buyer. The 74 questions in the Survey questionnaire made it possible to reveal and estimate almost 4 dozens of indicators related to the subject of the Survey. The Table below covers the most noteworthy key indicators.

Table 1 - Food safety public awareness, confidence and behavior summary indicators

1. Public awareness and confidence indicators	
1.1. Share of respondents, who think they are aware of which state agency oversees food safety	27%
1.2. Share of respondents aware that the SSFS is the state food safety oversight agency	10%

1.3.	Share of respondents who know the correct name of the SSFS	1%
1.4.	Share of respondents who vaguely know the name of the SSFS	9%
1.5.	Share of respondents aware of the SSFS territorial divisions	2%
1.5.1.	Respondents' confidence in the powers (capacities) of the SSFS territorial divisions	22% of 2%
1.5.2.	Respondents' confidence in professionalism and honesty of the SSFS territorial divisions' staff	26% of 2%
1.6.	Share of respondents aware of the food safety hotline	39%
1.7.	Share of respondents who know the food safety hotline number	1%
1.8.	Share of respondents aware of food-caused diseases	99%
1.9.	Average rate of food-caused diseases known by a respondent	2.11
1.10.	Share of respondents aware of cross-contamination	7%
1.11.	Share of respondents aware of food additives	37%
1.12.	Share of respondents aware of GMOs	21%
1.13.	Share of respondents aware of the hazards of improperly processed milk products	63%
1.14.	Share of respondents aware of the hazardous and toxic substances in fresh fruits and vegetables	52%
2. Public behavior and confidence indicators		
2.1.	Share of respondents buying food every day	55%
2.2.	3 sales outlets most frequently visited by respondents for food shopping:	
	↳ urban food stores;	81%
	↳ urban supermarkets;	68%
	↳ producing farmers and street vendors.	54%
2.3.	Share of respondents buying food from street traders	54%
2.4.	Share of respondents ready to use food safety hotline	24%
2.5.	Share of respondents definitely preferring local products for the products below (% out of the total number of people buying these products):	
	↳ fresh meat;	96%
	↳ meat products;	89%
	↳ milk products;	99%
	↳ fruits and vegetables;	96%
	↳ canned food;	82%
	↳ sweets	62%
2.6.	3 most crucial factors considered by respondents when buying food:	
	↳ best before date;	68%
	↳ product freshness;	39%
	↳ quality	36%
2.7.	Share of respondents concerned with food labeling data	45%
2.8.	Share of respondents tracing the best before date prior to buying food products:	
	↳ any products;	54%
	↳ only some products	36%
2.9.	Share of respondents trusting the best before date on food products	37%
2.10.	Share of respondents ready to complain once they come across an expired food product at a sales outlet	42%
2.11.	Share of respondents ready to buy food products without best before labels	11%
2.12.	Share of respondents considering expired food products hazardous:	
	↳ any food products;	51%
	↳ only some food products	48%
2.13.	Most common 3 types of expired food products, according to respondents:	
	↳ milk and milk products;	54%
	↳ meat products, and	18%
	↳ sweets.	17%

2.14. 3 types of food products considered by respondents most hazardous due to their keeping and storage	
↳ meat products;	56%
↳ milk and milk products;	51%
↳ fresh meat.	25%
2.15. Milk and milk products trading in the streets of:	
↳ Yerevan;	62%
↳ cities and towns in the marzes;	59%
↳ villages.	92%
2.16. Share of respondents trusting the cleanliness and safety of milk and milk products sold by street traders (% out of the total number of people buying these products)	60%
2.17. Share of respondents demanding the sellers to produce veterinary-sanitary expert examination opinion when buying meat	12%
2.18. Share of respondents buying meat based on their trust for sellers	42%
2.19. Share of respondents using food service facilities	64%
2.19.1. Share of respondents trusting the storage conditions and best before date of the food served at food service facilities (% out of the total number of food service users)	53% of 64%
2.19.2. Share of respondents ready to complain once they come across poor-quality and expired food products at the food service facilities (% out of the total number of food service facilities' users)	42% of 64%

Overall, the food safety awareness level of the food-buyers might be assessed as average, their confidence level as low, and behavioral attributes as passive and adaptive, resulted from low awareness of their rights protection. The food-buyers with such an average profile are unable to make good allies and assistants to the competent food safety authorities. Obviously, the food safety public awareness campaign shall make the cornerstone of the SSFS Communication Strategy, with coherent awareness policies pursued. Otherwise, the SSFS will have to face up to the food safety issues all alone and the public health risks will persist.

1 INTRODUCTION

This Report covers the findings of the **Social Survey on Food Safety Public Awareness** (hereinafter referred to as Survey). The Survey was commissioned by the Republic of Armenia (RA) Ministry of Agriculture (MoA) **Agricultural Project Implementation Unit** (hereinafter referred to as Client). The beneficiary of the Survey results is the RA MoA **State Service for Food Safety** (SSFS). The Survey was conducted by the **AM Partners Consulting Company LLC** (hereinafter referred to as Consultant) in February-June 2015.

1.1 SURVEY OBJECTIVE

The Social Survey on Food Safety Public Awareness was conducted within the Food Safety Capacity Building Project (hereinafter referred to as Project) financed by the Institutional Development Fund grant of the World Bank (WB). The Project was launched in 2012 by the RA MoA Agricultural PIU.

The Project is aimed at food safety institutional capacity building to ensure improved food throughout the entire food chain. It seeks to use the international standards and best decision-making practices to contribute to creation of a modern food safety regulation system. Such contribution will serve as a stimulus to further food safety reforms.

This Survey ranges among key activities performed under Sub-component 3 (Food and Feed Safety Awareness Raising in Public-Private Sectors) of Component 1 (Strengthening Food Safety Institutional Capacities) of the Project. The need for such a survey arose from the 2 papers below published by WB Consultant Dan Petrescu, Ph.D. in 2013:

1. Assessment of the Existing Situation with the Food Safety Communication;
2. Communication Strategy and Action Plan for the SSFS.

The both papers above shed light on the exiting situation with the food safety awareness and communication in Armenia and suggest concrete steps to improve it.

The Assessment Report covers specific recommendations on the information channels (television, radio, newspapers and magazines, outdoor informative signs, i.e. posters, leaflets, booklets and brochures) to facilitate communication between the SSFS and the public at large, as well as their top-rated forms and sources. However, with no precise information on the gaps in the food safety public awareness and the behavioral attributes of customers, the author refrained from suggesting any thematic directions for public awareness.

The assessment of the existing situation of communication in the field of food safety in Armenia revealed as follows (extract from the Assessment Report):

▶ *"The lack of quantitative data regarding the awareness and level of interest of the population and their awareness and attitudes regarding the SSFS is a severe handicap in designing and in the monitoring and evaluation of any communication intervention. Conclusions in this regard can only be extrapolated from quantitative and qualitative sources (interviews) and secondary, hearsay sources".*

The Assessment Report covers specific recommendations on the information channels (television, radio, newspapers and magazines, outdoor informative signs, i.e. posters, leaflets, booklets and brochures) to facilitate communication between the SSFS and the public at large, as well as their top-rated forms and sources. However, with no precise information on the gaps in the food safety public awareness and the behavioral attributes of customers, the author refrained from suggesting any thematic directions for public awareness.

The proposed solutions to this problem were covered in another paper by the Consultant, Communication Strategy and Action Plan for the SSFS, whereby he suggested **surveying the public opinion** and accordingly changing the strategy.

D. Petrescu's next suggestion concerns dynamic changes in the SSFS communication strategy. The information needs change over time along with the changed (increased) public awareness level. In this respect, the issues related to public awareness, knowledge, opinions and attitudes should be monitored regularly (with some frequency). This will allow the SSFS to take proper, effective and targeted follow-up public awareness actions. Effective monitoring and evaluation **will call for a baseline situation**, and this Report aims to identify such a situation of food safety public awareness.

Hence, the Social Survey on Food Safety Public Awareness **serves as a resolution of the 2 issues below:**

1. The extensive quantitative survey of public awareness provides **updated data to amend the SSFS communications strategy and action plan**, and
2. **It serves as a source database for regular monitoring** of the food safety public awareness and current information needs.

1.2 SURVEY METHODOLOGY

1.2.1 Sampling

1.2.1.1 *Survey target group*

The Survey targets the **food-buyers** in Armenia and particularly those who show independent customer behavioral attributes by deciding to buy food and implementing their decision. It proves quite difficult to determine exactly at what age people develop their independent customer's experience. People might shop at public sales outlets and still hold and express no opinions of their own. Such a group might comprise guys and girls aged 10-15 shopping at public sales outlets at their parents' request or instruction and unable due to their young age to show the features of an experienced customer, e.g. not tracing the food product labels or failing to distinguish between the expired and fresh food, etc. Based on the above, this Survey target group comprises the **Armenia's population aged 20 and older**.

1.2.1.2 *Sample size*

To calculate the sample size of the social survey on public awareness of Armenian food safety, the Consultant used the benchmark data below: a) the size of the sample frame, and b) the confidence level and confidence interval indicators of the survey results.

The **sample frame** covers the general number of food-buyers in Armenia. For the purposes of this Survey, this group comprises Armenia's population aged 20 and older. To ensure representative and random sampling, the interviews with the respondents were held at the households, with a respondent per household. Therefore, the sample frame was limited by the number of households. According to Census 2011, **the number of households in Armenia totals 763,584**.

As for the **confidence level** and **confidence interval** of the survey results, the indicators below were considered: a) confidence level: 95%, and b) confidence interval: 3%.

Based on the sample frame size, the confidence level and confidence interval indicators of the survey results above, the **sample size** was calculated to cover **1,066 people**.

1.2.1.3 Sampling

To ensure that the Survey provides statistically representative results for Armenia’s population, the Consultant made sure that the sampling covers population groups with all the attributes of the Armenian population. To this end, the Consultant took the 4 actions below:

- ▶ community sampling;
- ▶ interview area sampling;
- ▶ household sampling;
- ▶ survey respondents sampling.

1. Sampling of communities to be surveyed

While selecting communities for survey and sample distribution, the Consultant made sure that the sampling: a) covered the geographic distribution of the Armenian population, and b) presented the distribution of the Armenian population in urban and rural areas.

The geographic distribution of the Armenian population is based on the distribution of the population by administrative-territorial units, namely Yerevan and 10 marzes (regions). The sampling distribution is proportionate to the actual population in the administrative-territorial units in the sample frame (aged 20 and older).

Table 2 - Sampling distribution by administrative-territorial units of Armenia

Administrative-Territorial Units	Number of Households, 2011 ¹⁾	Share	Sample Size
Yerevan	285,112	37.3%	398
Aragatsotn	31,266	4.1%	43
Ararat	59,363	7.8%	83
Armavir	59,536	7.8%	83
Gegharkunik	49,614	6.5%	69
Lori	66,969	8.8%	94
Kotayk	62,080	8.1%	86
Shirak	65,006	8.5%	91
Syunik	38,345	5.0%	54
Vayots Dzor	12,781	1.7%	18
Tavush	33,512	4.4%	47
ARMENIA	763,584	100.0%	1,066

¹⁾ According to Census 2011.

The vast territory of Yerevan and peculiarities of its various administrative districts suggest that its population is not homogenous by its social and economic features. Therefore, **the Yerevan sample was also distributed among its entire territory** (administrative districts) to ensure that the survey data was representative of every segment of the capital population.

The sampling distribution in Yerevan by its administrative districts is proportionate to the general number of the population of the administrative districts within the **general** number of Yerevan population as there are no data on the number of households in each of the administrative districts.

Table 3 - Yerevan sampling distribution by administrative districts

Administrative Districts	Number of Actual Population, 2011 ¹⁾	Share	Sample Size
Ajapnyak	108,006	10.2%	41
Avan	53,507	5.1%	20
Arabkir	118,055	11.2%	45

Introduction

Davitashen	41,879	4.0%	16
Erebuni	122,683	11.6%	46
Kentron	128,004	12.1%	48
Malatia-Sebastia	129,863	12.3%	49
Nor Nork	120,390	11.4%	45
Nork-Marash	12,186	1.2%	5
Nubarashen	9,435	0.9%	4
Shengavit	136,226	12.9%	51
Kanaker-Zeytun	74,464	7.1%	28
YEREVAN	1,054,698	100.0%	398

¹⁾ According to Census 2011.

The sampling distribution by cities (towns) and villages is proportionate to the numbers of urban and rural households in each of Armenian administrative-territorial units.

Table 4 - Sample distribution by cities (towns) and villages

Administrative - Territorial Units	Number of Households, 2011 ¹⁾			Share		Sample Size		
	Total	City (Town)	Village	City (Town)	Village	Total	City (Town)	Village
Yerevan	285,112	285,112	-	37.3%	-	398	398	0
Aragatsotn	31,266	7,482	23,784	1.0%	3.1%	43	10	33
Ararat	59,363	17,734	41,629	2.3%	5.5%	83	25	58
Armavir	59,536	21,522	38,014	2.8%	5.0%	83	30	53
Gegharkunik	49,614	17,434	32,180	2.3%	4.2%	69	24	45
Lori	66,969	39,884	27,085	5.2%	3.5%	94	56	38
Kotayk	62,080	36,106	25,974	4.7%	3.4%	86	50	36
Shirak	65,006	39,988	25,018	5.2%	3.3%	91	56	35
Syunik	38,345	26,475	11,870	3.5%	1.6%	54	37	17
Vayots Dzor	12,781	4,978	7,803	0.7%	1.0%	18	7	11
Tavush	33,512	14,350	19,162	1.9%	2.5%	47	20	27
ARMENIA	763,584	511,065	252,519	66.9%	33.1%	1,066	713	353

¹⁾ According to Census 2011.

Sampling of communities: the survey communities in the marzes (regions) were selected in a way that their number was: a) limited enough for the interviews to proceed without any technical difficulties and b) large enough for the sampling to cover communities having all types of features and representative for any kind of community in each marz. Accordingly, the Consultant divided the city (town) and villages sample share of marzes by 20 (rounded up) and as a result, got the numbers of urban and rural communities were interviews would be held in each marz.

Table 5 - Number of surveyed communities broken down by marzes

Marzes (Regions)	Cities (Towns)		Villages	
	Sample Size	Number of Communities	Sample Size	Number of Communities
A	B	C (= B / 20)	D	E (= D / 20)
Aragatsotn	10	1	33	2
Ararat	25	2	58	3
Armavir	30	2	53	3
Gegharkunik	24	2	45	3
Lori	56	3	38	2

Marzes (Regions)	Cities (Towns)		Villages	
	Sample Size	Number of Communities	Sample Size	Number of Communities
A	B	C (= B / 20)	D	E (= D / 20)
Kotayk	50	3	36	2
Shirak	56	3	35	2
Syunik	37	2	17	1
Vayots Dzor	7	1	11	1
Tavush	20	1	27	2
Total	315	20	353	21

The specific communities to be surveyed were selected based on experimental data, as a result of a joint discussion with the experts of the Client. The Consultant made sure that the selected communities were representative of various regions in their marzes.

Table 6 - Surveyed Communities

Administrative-Territorial Units	Sampling Distribution by Communities			
	Cities (Towns)		Villages	
	Community	Sample Size	Community	Sample Size
Yerevan	Yerevan	398		
Aragatsotn	Ashtarak	10	Dashtadem	17
			Kuchak	16
Ararat	Artashat	13	Vostan	20
	Masis	12	Ranchpar	19
			Aygavan	19
Armavir	Armavir	15	Bambakashat	18
	Metsamor	15	Dalarik	18
			Dasht	17
Gegharkunik	Gavar	12	Noratus	15
	Tchambarak	12	Ltchashen	15
			Ddmashen	15
Lori	Vanadzor	19	Odzun	19
	Spitak	19	Katnajur	19
	Tashir	18		
Kotayk	Hrazdan	17	Lernanist	18
	Abovyan	17	Zoravan	18
	Nor Hatchn	16	Anushavan	18
Shirak	Gyumri	19	Lanjik	17
	Artik	19		
	Maralick	18		
Syunik	Goris	19	Shaghat	17
	Sisian	18		
Vayots Dzor	Yeghegnadzor	7	Zaritap	11
Tavush	Ijevan	20	Khashtarak	14
			Gosh	13
Total	21	713	21	353

2. Selection of Interview Area

In communities, the interview areas were selected by random selection of a street (or more than one street) in a particular location. Based on the different numbers (for Yerevan: max = 51, min = 4; for marzes: max = 20, min = 7) of sample size in the selected communities and the suggested method of households sampling (described below), a system restricting the sampling of interview areas was applied. This system is outlined below:

1. In each community, several interview areas were selected to ensure a maximum coverage of the community area. The administrative districts of Yerevan and cities in the marzes were divided into areas covering districts or main streets. As for small towns and villages, such areas covered a street.
2. The sample share of each community **was equally divided** among the interview areas.
3. When fixing the number of interview areas, the Consultant made sure that **at least 5 interviews** might be held in each area.
4. For communities with sample size below 5, the Consultant selected **1 interview area**.

3. Household Selection

The key starting point for the selection of households is their characteristics. The definitions in the 2 official sources below give quite a clear idea of it.

Extract from the RA State Council on Statistics Decree № 33 dated March 20, 2001

8. What is a household?

I. a person residing at a separate housing unit or some of its parts and meets all his/her daily needs and fails to unite his/her funds with other persons sharing the housing unit to manage a common budget.

II. 2 or more persons residing at a separate housing unit or some of its parts or some of its premises who meet their daily needs by managing a common budget through uniting all or some of their funds. Such persons might be either relatives or a married couple, or have no kinship ties, or both.

Extract from the RA Law on State Benefits

A 'household' is a small social group of citizens registered and/or actually residing at a shared housing unit, whose members manage a common household and budget.

The household definitions above resulted in an essential reservation: **a household is not a family**. Family is a broader concept based on either kinship or marriage, regardless of the place of residence of its members. Whereas the definition of a household is based on a specific place of residence, regardless of the kinship or marriage ties of its members.

The survey area households were selected by **random route sampling**. At a particular survey area, the Consultant absolutely randomly selected an initial address of a household and held the first interview there. As for the other households to be interviewed, households residing at each **3rd address** starting from the initial address were selected.

4. Survey Respondents Selection

Upon selection of households, the Consultant selected a respondent from each household through application of the **last-birthday key** and took the actions below:

1. *Make contacts with an adult responsible household member*, i.e. the person who has and can provide the necessary information about his household members;
2. *List the household members aged 20 and older (in short 20+) and their birthdays* **out of the household members who buy food products for themselves or their households;**
3. *By application of the last-birthday key the Consultant chose the respondent*, i.e. **a person with the most recent birthday to the interview date;**
4. *Reservations and exceptions:* in some cases, when providing household members data, the informant also considered among them persons who for some reasons had actually lost that status, e.g. persons doing their mandatory military service. Such categories of persons were excluded from the group of potential respondents. Therefore,

- ▶ Persons perceived by informants as their household members who, however, were temporarily (regardless of duration of their absence) away, namely (a) *migrant workers regardless of duration of their absence* and (b) *students residing away from their household's place of residence during their studies*, **were considered household members**;
- ▶ Persons perceived by informants as their household members who, however, were temporarily (regardless of duration of their absence) away, namely (a) *compulsory military service conscripts*, (b) *inmates* and (c) *persons in social welfare institutions (i.e. orphanages, nursing houses)* **were not considered household members**.

1.2.1.4 Accessing respondents

Since the respondents were sampled through visits to the selected households, interviews with the respondents were often accompanied with some objective difficulties, as household members or the selected respondents were out. To resolve this issue, the Consultant applied the **3 re-visits method**. If at his first visit to a selected household, the interviewer was unable to contact its members (e.g. there was no one in) or did not find the respondent at home, he/she also visited the household for the second and third times, as necessary.

1.2.2 Survey Tool: Questionnaire

Based on the list of questions specified under the Terms of Reference, the Consultant developed a **questionnaire** as a survey tool covering 74 questions in 9 thematic groups (general questions, best before date, labeling, storage conditions, hotline, animal products, phyto-sanitary, bread products, food service facilities).

The questionnaire was developed in several stages. The consultant first drafted the questionnaire and submitted it for review and feedback to all the Survey stakeholders. As a result, the RA MoA Agricultural PIU, WB and SSFS provided their own recommendations and comments which were used to amend the questionnaire and draw up its final draft.

Afterwards, the draft questionnaire was tested in the fieldwork. The pilot surveys had the 2 objectives below: a) to enhance the interviewers' capacities and help them master the questionnaire fill-out techniques, and b) detect any possible defects in the questionnaire: unclear or ambiguous wording, unspecified logical connections, etc. The pilot interviews were conducted on March 25-26, 2015 in Yerevan (Kanakaner-Zeytun administrative district) and nearby Zovuni rural community.

As a result of the pilot interviews above, the questionnaire underwent some technical changes. The wording of some questions was amended and a question was removed due to the impossibility of obtaining meaningful and thorough responses. All changes and amendments resulted in a final questionnaire.

1.2.3 Interviewers

The Consultant recruited a team of 12 interviewers to hold interviews. The interviewers were trained in 3 stages. At the team mobilization stage, they were familiarized with the purpose and methodology of the Survey. At the next meeting with the interviewers, the Consultant introduced the questionnaire, its content and the fill-out techniques and provided them with methodological guidelines with detailed instructions on how to handle any possible cases during fieldwork. At the second meeting, the Consultant provided them with the final questionnaire focusing on its changes and amendments upon the pilot surveys.

1.2.4 Main Interviews

The main interviews were held in April 2015. The interviewers' team was divided into 3 mobile groups to conduct interviews in their assigned areas. The activities of the interviewers were monitored by 2 supervisors. At the initial stage, the supervisors attended the several interviews held by various interviewers. During the following days, the supervisors randomly verified the interviews and the collected data through field visits and phone calls. Overall, they verified 5% of the interviews.

To ensure the specified sample size, i.e. 1,066 respondents, the Consultant contacted 3,911 households. The table below covers the results of such contacts.

Table 7 - Number of households contacted to ensure the specified sample size and results of such contacts

Results of Contacting Households	Reasons for Failed Interviews	Number	%
Held Interviews		1,066	27%
Failed Interviews	Respondents refused to give an interview.	820	21%
	The selected respondents were unavailable.	354	9%
	The house door was locked (no one was in).	1,671	43%
Total		3,911	100%

The two findings below deserve special attention:

1. The "Selected respondent unavailable" group almost entirely comprised men. This affected the gender composition of the respondents, with the women outnumbering the men;
2. The "House Door Locked (No One In)" group comprised households of the 2 types below: a) households with all members residing elsewhere (e.g. abroad); b) households with members not found at the selected addresses even after 2 revisits.

The data above might be used to estimate the survey response rate:

$$\text{Response rate} = \text{HI} / (\text{HI} + \text{D}) \times 100 = 1,066 / (1,066 + 820) \times 100 = \mathbf{56.5\%}$$

with: HI = Held Interviews
D = Denials

1.2.5 Summarizing Survey Findings

The Consultant entered questionnaires data filled out during the interviews into a MS Excel **electronic database**. Prior to the statistical analysis of the data, the Consultant encoded and grouped all the open-ended questions. To detect any possible gaps in questionnaire fill-out and data entry, the Consultant previously conducted a logical analysis of the electronic database, traced all the logical contradictions and made necessary corrections. Thereafter, the Consultant performed a statistical analysis serving as a basis for this analytical report.

1.2.6 Qualitative Survey

Along with the quantitative survey, the Consultant conducted **33 in-depth interviews** among the same target group. 3 interviews were held in Yerevan and each of the marzes, in 33 random communities, including 17 urban and 16 rural communities. The profile of the in-depth interview respondents is detailed below:

- a) by gender:
 - ▶ 11 men; and
 - ▶ 22 women

- b) by age groups:
 - ▶ 11 respondents aged 20-40;
 - ▶ 11 respondents aged 41-62;
 - ▶ 11 respondents aged 63 and older.
- c) by residential area:
 - ▶ urban: 19 respondents;
 - ▶ rural: 14 respondents.

The in-depth interviews above were held in line with the previously laid down interview guidelines. The interviews were recorded and then transcribed. These transcripts served as additional information assets for this analytical report.

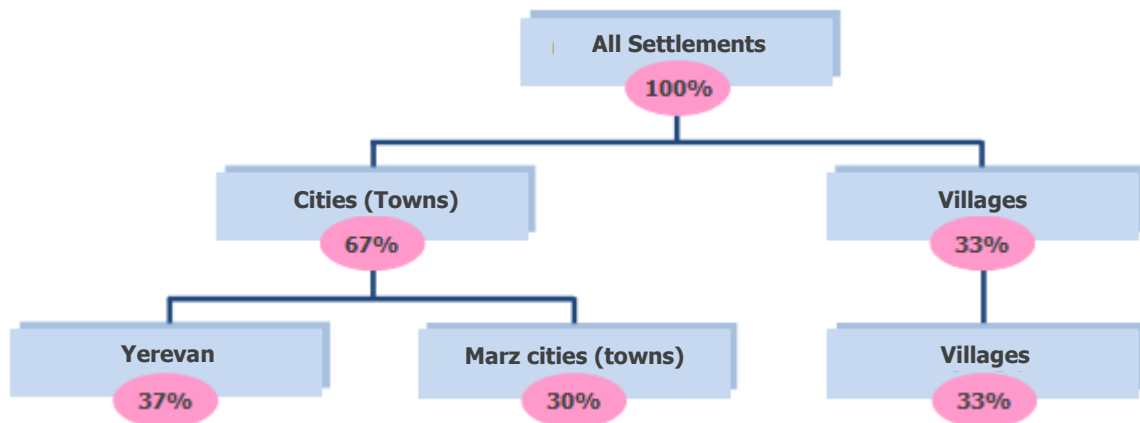
Actually, the in-depth interviews contributed to collecting comprehensive data on food buying (respondents' awareness, attitudes and the reasons behind their positions) the full acquisition of which through the quantitative survey only would render quite difficult.

2 RESPONDENTS' PROFILE

To build up respondents' profile, the Consultant used the features below: type of settlement, gender, age, education level and employment status.

Breakdown of respondents by settlements: this Survey sampling was intended to be representative of both urban and rural population of Armenia. The urban and rural area sampling distribution is proportionate to the share of the urban and rural population within the total number of Armenian population making 67% and 33%, respectively.

Chart 1 - Breakdown of respondents by settlements



The Survey revealed that depending on their settlement (Yerevan, towns or villages in the marzes), respondents showed significant differences in their food safety awareness levels, attitudes and behavior. This is accounted for by the social and cultural attributes of Yerevan and towns and villages in the marzes. Therefore, it appears quite essential to present the survey finding through breakdown of the respondents by their settlement.

Breakdown of respondents by gender: Due to the Survey methodology applied, men constituted 25% and women 75% of the Survey sampling.

Chart 2 - Breakdown of respondents by gender

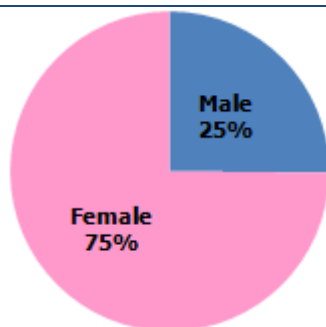


Table 8 - Breakdown of respondents by gender and settlement

Gender	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
Male	27%	20%	28%	25%
Female	73%	80%	72%	75%
Total	100%	100%	100%	100%

The female respondents outnumber the male ones for a number of reasons. As mentioned above, in each of the surveyed households, respondents were selected out of the household members engaged in food buying. The Survey findings revealed that the general number of food-buyers in the 1,066 surveyed households totaled 2,494, with 1,009 (40%) men and 1,485 (60%) women. Considering that the "Selected respondent unavailable" group almost entirely comprised men (See **Section 1.2.4.**), obviously enough women were much more likely to have been selected, given the population composition in question. As for the general

prevalence of women among the food-buyers surveyed, this can be accounted for by a number of reasons below:

1. In the overwhelming majority of households, the **household ruling** (including food buying) **resides with women**. This is a factual truth for the Armenian population based on the economic, social and cultural factors;
2. Men made the vast majority of the **household members unavailable** for interviews. They were unavailable for various reasons, e.g. migrant work, conscript military service, etc.

Age composition of respondents: persons aged 26-62 (most active life activity stage) constitute the vast majority (70%) of the food-buying community.

Chart 3 - Breakdown of respondents by age

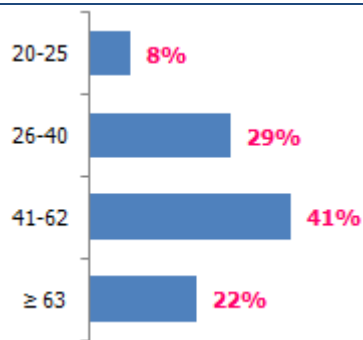


Table 9 - Breakdown of respondents by age and settlement

Age	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
20-25	8%	9%	8%	8%
26-40	26%	32%	30%	29%
41-62	41%	37%	44%	41%
≥ 63	26%	22%	18%	22%
Total	100%	100%	100%	100%

The large number (22% of the total) of retirement age (≥ 63) persons in the sampling is accounted for by the fact that households with exclusively elderly members constitute quite a large number among the respondents.

Respondents' educational level: The educational level of the food-buying community appears quite high, with persons with vocational and higher education making up 56%.

Chart 4 - Breakdown of respondents by educational level

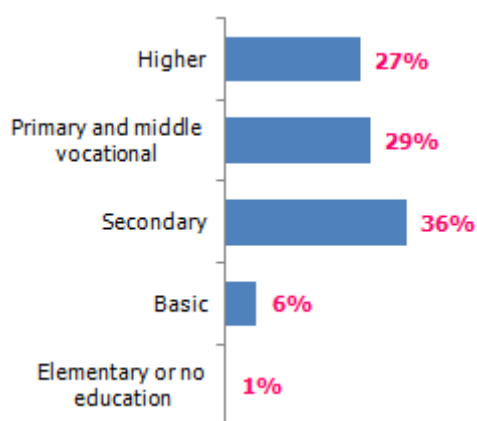


Table 10 - Breakdown of respondents by educational level and settlement

Education	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
Higher	48%	20%	11%	27%
Primary and Middle Vocational	24%	35%	30%	29%
Secondary	25%	40%	46%	36%
Basic	3%	5%	12%	6%
Elementary/ No Education	0%	1%	1%	1%
Total	100%	100%	100%	100%

The Survey findings revealed significant differences in the level of education of respondents from Yerevan, cities (towns) in marzes and villages (See **Table 10**). This can be explained by the striking differences in the numbers of persons with higher education among the population of the settlements above. Thus, while the rate of persons for Armenia with higher education aged 20 and older makes up 24%, this rate for Yerevan makes up 39%.

Here is another key finding of the Survey: **the educational level indicator of the food-buying community is obviously higher as compared to the relevant indicators of the total Armenian population.** The Table below provides comparative statistics underlying this finding:

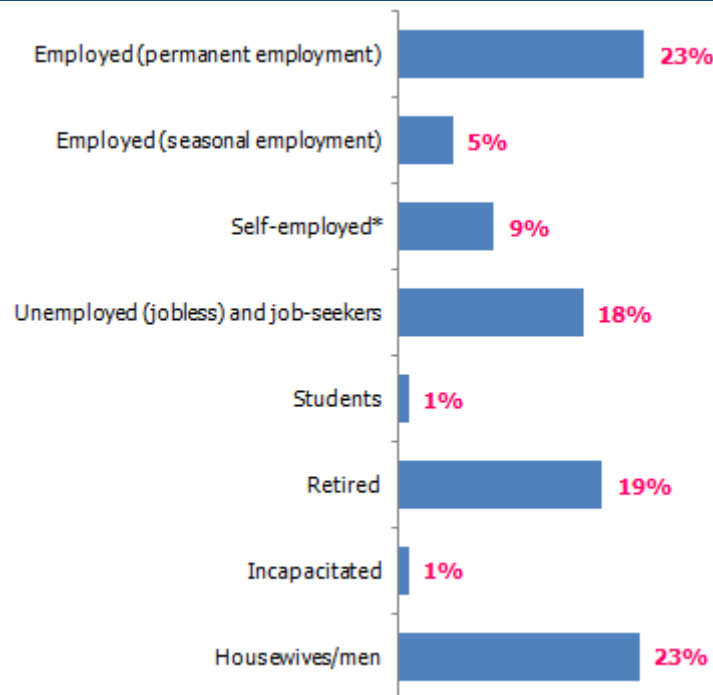
Table 11 - Educational level of surveyed respondents as compared against the general indicators for Armenia

Education	Armenia <i>Educational level of permanent population aged ≥20¹⁾</i>	Respondents <i>Educational level of permanent population aged ≥ 20</i>
Higher and postgraduate vocational	24%	27%
Primary and middle vocational	22%	29%
Secondary	44%	36%
Basic	6%	6%
Elementary or no education	3%	1%
Total	100%	100%

¹⁾ - According to Census 2011

Respondents' employment status: by their employment status, the respondents may be classified in the 3 groups below: a) employed (permanent and seasonal workers, self-employed): 37%; b) unemployed (jobless): 18%; and c) non-employed (students, retired, incapacitates, housewife/housemen): 45%. The Chart below details these findings.

Chart 5 - Breakdown of respondents by their employment status



Like with educational level, the employment status of respondents differs significantly from settlement to settlement. Thus, respondents from Yerevan show higher employment rate (43%) and lower unemployment rate (14%). As for the respondents from the marzes (both towns and villages) the general employment rate is lower (35%), while the unemployment rate is higher (19-21%).

Table 12 - Breakdown of respondents by their employment status and settlement

Employment Status	Settlement			Total
	Yerevan	Marz cities (towns)	Villages	
Employed (permanent employment)	34%	23%	12%	23%
Employed (seasonal employment)	5%	7%	4%	5%
Self-employed*	4%	5%	19%	9%
Unemployed (jobless) and job-seekers	14%	19%	21%	18%
Students	2%	1%	1%	1%
Retired	22%	20%	16%	19%
Incapacitated	1%	1%	1%	1%
Housewives/men	20%	24%	25%	23%
Total	100%	100%	100%	100%

The respondents' educational level and employment status come to suggest that **their educational level is directly proportional to their employment: the higher respondents' educational level, the higher their employment status.**

Respondents acting as the main food-buyers in their households: according to 73% of the interviewed respondents, they were the **only** or **main food-buyers in their households.**

Chart 6 - Share of respondents acting as the main food-buyers in their households

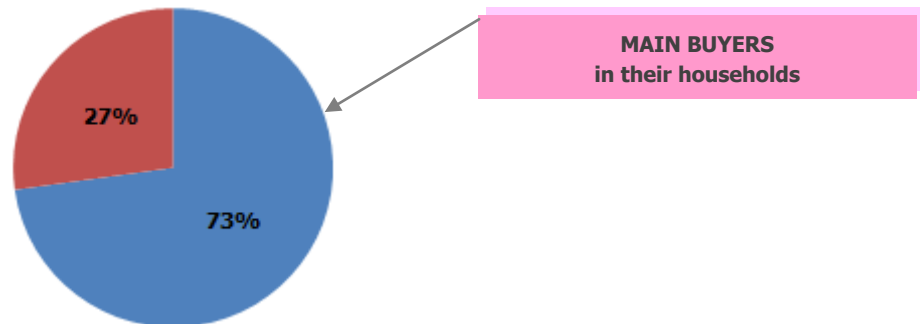


Table 13 - Respondents acting as main food-buyers in their households, by settlement, gender and age

Settlement			Gender		Age			
Yerevan	Cities (towns) in marzes	Villages	Male	Female	20-25	26-40	41-62	≥ 63
75%	77%	67%	65%	75%	5%	28%	43%	24%

3 FOOD SAFETY AWARENESS

3.1 AWARENESS ON SSFS

The State Service for Food Security (SSFS) is a public agency under the RA Ministry of Agriculture responsible for food safety and conformity assessment, state regulations for the veterinary and phyto-sanitary sectors, as well as oversight functions and sanctions as and when prescribed by law. In this regard, in its daily activities above, the SSFS does not directly contact food-buyers and consumers. This significantly affects the food-buyers' awareness on the SSFS of. Therefore, the survey findings below should be considered in this context.

3.1.1 SSFS Recognition Rate

According to **73%** of the respondents, they **were not aware** of any state agency responsible for the oversight of food safety, veterinary and phyto-sanitary sectors. Only **27%** of the respondents claimed to know about such a public agency. However, when asked to name this agency, the respondents provided a variety of answers, including **right, plausible, and wrong** ones.

The Table below provides the answers of the respondents (27% of the total) "well-aware" of the SSFS as classified in the groups above. The answers did not undergo any editing and are presented the way they were provided.

Table 14 - Respondents' ideas on the name of the food safety oversight agency

Right Answers		Plausible Answers		Wrong Answers	
Answers	%	Answers	%	Answers	%
State Service for Food Safety	0.9%	Food Safety Organization, Service Center, Committee, Board, Commission, Inspection, Department, Agency	1.9%	Know the state agency, but unable to recall the name	9.5%
SSFS	0.1%	State Committee for Food Safety	1.8%	Sanitary-and-epidemiologic institution, some anti-epidemic organization, general sanitary ... [could not continue the phrase], epidemiological expedition	2.0%
		RA Ministry of Agriculture	1.8%	RA Ministry of Health	1.9%
		State Inspection for Food Safety	1.6%	Organization for protection of consumers' rights or interests	1.4%
		Committee, Commission for Food Oversight	1.2%	Ministry of Food or Food Production	0.6%
		Food Inspectorate	0.4%	Commission for Economic Competition, Artak Shaboyan	0.5%
		Agency for Food Safety and Oversight	0.1%	Union of Consumers	0.3%
		State food ... [could not end the phrase]	0.1%	Tax Inspectorate	0.2%
		Food industry ... [could not end the phrase]	0.1%	Food Department	0.2%
				Control Chamber	0.1%
				Police	0.1%
				Ministry of Economy	0.1%
				Center for Food Guarantee	0.1%
				'Gosstandart' (state standard)	0.1%
				Defense Committee	0.1%
				Special Commission	0.1%

Right Answers		Plausible Answers		Wrong Answers	
Answers	%	Answers	%	Answers	%
				Human rights... [could not end the phrase]	0.1%
Total	1%	Total	9%	Total	17%

Only 1% of the respondents precisely mentioned the name of the SSFS as a food safety oversight agency. Another 9% provided inexact, but still plausible answers that may be considered with some reservations as right answer. These respondents' answers suggest that they were actually aware of the SSFS, but could not recall the 4-worded name of the agency.

The **in-depth interviews** held among the food-buyers come to support the findings of the quantitative survey. 24 of the 33 food-buyers were absolutely unaware of the SSFS. As for the others respondents, their opinions were incoherent and based rather on reasonable assumptions. This group of respondents associated the state food safety oversight agency with the RA Ministry of Agriculture, and some others mentioned that the Ministry of Health used to perform this function. Particularly, the respondents showed poor awareness of the functions carried out by the SSFS. The few people who mentioned the name of the SSFS (fully or partially right) could assume only from its name that the SSFS was engaged in food safety.

The findings above show that the vast majority of the food-buyers (90% of the total) are unaware of the issues below: a) what state agency oversees the food safety? and b) how is this state agency called? This should be viewed as an **insufficient SSFS awareness** with some adverse implications below:

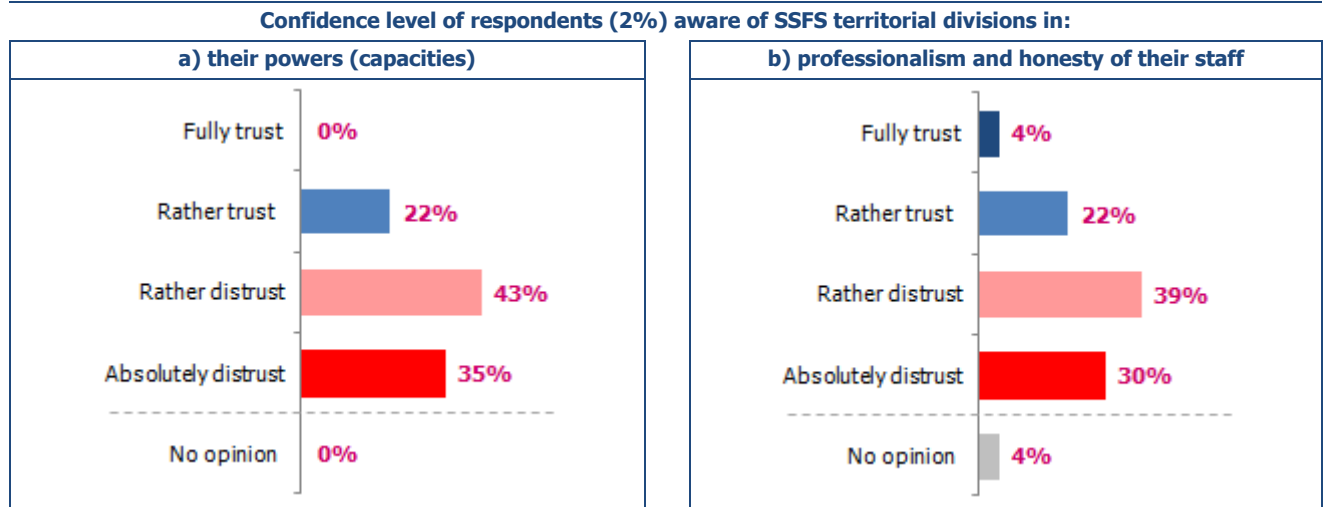
- ▶ The low recognition rate of the SSFS among food-buyers affects their interaction;
- ▶ The SSFS-consumer weak ties result in reduced capacities of the SSFS to obtain up-to-date information on the deficiencies and violations in the food safety sector;
- ▶ The SSFS-consumer weak ties obstruct the effective coordination of consumers' rights and interests protection.

3.1.2 **Awareness of and Confidence in SSFS Territorial Divisions**

The public awareness of the SSFS territorial divisions is much lower as compared that of the SSFS as such. Only 2% of the surveyed respondents (23 out of 1,066) or in other words 22% (23 out of 106) of respondents aware of the SSFS know about its territorial divisions. As of the **in-depth interviews**, none of the 33 food-buyers interviewed was aware of the SSFS territorial divisions. While the SSFS structural features might be of no importance to the food-buyers and consumers in general, the low public awareness of its territorial divisions once again comes to highlight the information gap on public awareness of the SSFS.

The small group of the respondents (2% of the total) aware of the SSFS territorial divisions, showed different attitudes towards their activities, i.e. **low confidence in such divisions**. The data obtained through the quantitative survey appear insufficient to put forward any explanations. And the in-depth interviews suggested no assumptions at all since none of the interviewees was aware of such divisions. Therefore, the Consultant provides no comments on the confidence indicator.

Chart 7 - Confidence level of respondents aware of SSFS territorial divisions in their powers (capacities) and professionalism and honesty of their staff



3.1.3 Public Awareness of Food Safety Hotline and Information Sources

Today, the SSFS makes it possible for anyone to directly contact it for any food safety complaints, comments, information or suggestions. You can contact the SSFS by email or by calling the (010) 206040 hotline number. These are no doubt essential communication tools and rightly considered among the strengths of the SSFS in Assessment of the Current State of Food Safety Communication Paper by D. Petrescu. However, the survey findings suggest that the **efficiency** of these tools is quite **low**. In particular, the Survey focused on the hotline awareness among the food-buyers, most basic means of communication between the SSFS and the customers. 39% of the food-buyers are aware of the food safety hotline. This awareness level was also supported by the findings of the in-depth interviews; accordingly, 12 (36%) out of the 33 respondents were aware of the hotline. Yet, only 1% (See **Chart 8**) of respondents recalled the hotline number. This is also supported by the in-depth interviews findings as none of the 33 food-buyers knew the hotline number.

The question on the hotline information sources was addressed to the 39% (419 out of 1,066) of the respondents aware of the hotline. This was a multiple-choice question, and the 419 respondents specified a total of 437 sources.

Television was mentioned as the main source of information on the hotline. According to 84% of the respondents, they had learnt about the hotline from TV broadcasts and social advertising (See **Chart 9**).

Chart 8 - Respondents' awareness of SSFS hotline

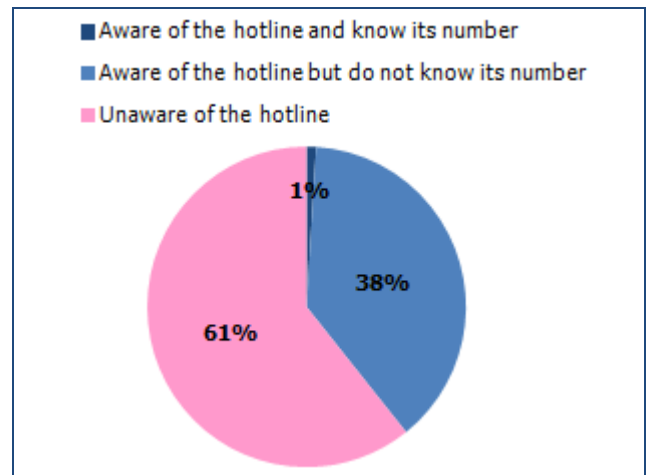
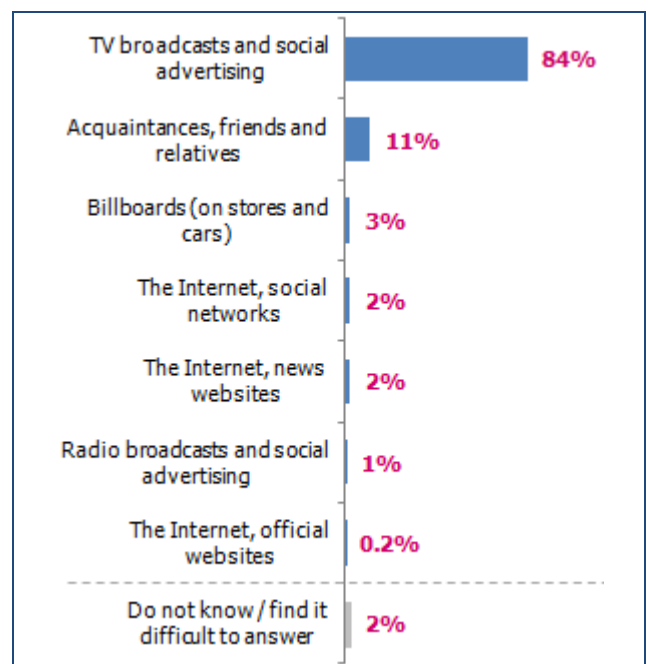


Chart 9 - Information Sources for respondents' awareness of SSFS hotline (answers to a multiple-choice question)



The respondents' answers specifying billboards on stores and cars make quite a small rate (only 3% of the respondents aware of the hotline). Whereas, it is just in the stores and food service facilities and consumers might need to alert the state agency to any food safety breaches or defects. In this regard, the Consultant supports the recommendation in the SSFS Communications Strategy that the most effective way of sharing the hotline number is posting it in a prominent place at any food-manufacturing organization or store. Thus, the phone number will always be within sight of the food-buyers, so that it is easily remembered and gradually develops into an effective tool.

While in recent years the Armenian households have gained improved computer and internet access (more than half of the Armenian households have both a computer and access to the Internet), **the Internet has not yet acquired the status of a primary source of thematic information**. This is evidenced by the fact that the Internet resources (SSFS official website, news websites or social networks) are still of a little significance for SSFS hotline awareness.

3.2 AWARENESS OF FOOD HAZARDS

3.2.1 Awareness of Food-Caused Diseases

Almost everyone realizes the dangers of poor-quality food. In response to the question on food-caused disease, over 99% (1,057 out of 1,066) provided at least 1 answer. The Survey respondents mentioned a total of 2,248 food-caused diseases; this means that each of the food-buyer interviewed might have named an average of 2.11 diseases.

However, the analysis of the respondents' answers traced many differences. When asked about food-caused diseases, some respondents provided very **clear** and **precise** answers, whereas some others provided very **general** and **vague** answers. Here are some examples of clear and precise answers: *botulism, salmonellosis, dysentery, disbacteriosis*, etc, and those of more general and vague answers: *food poisoning, headache, allergy, stoutness, obesity*, etc. The Chart below covers the food-caused diseases awareness indicators among the respondents and provides their unedited answers which however are classified in some groups.

Chart 10 - Respondents' awareness of food-caused diseases (answers to a multiple-choice question)

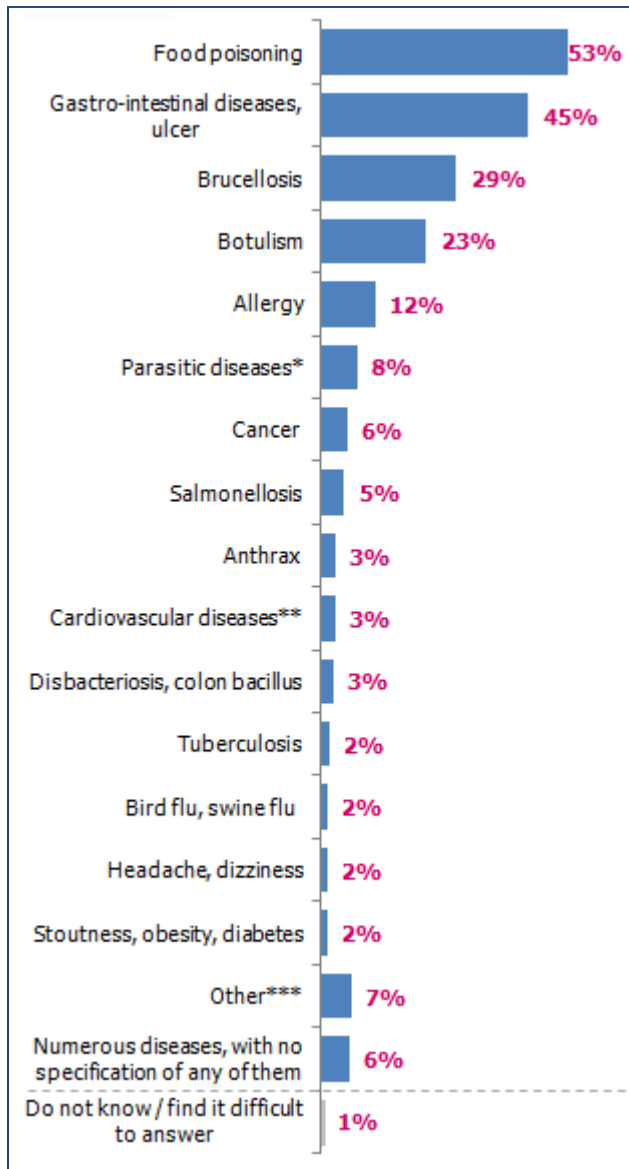
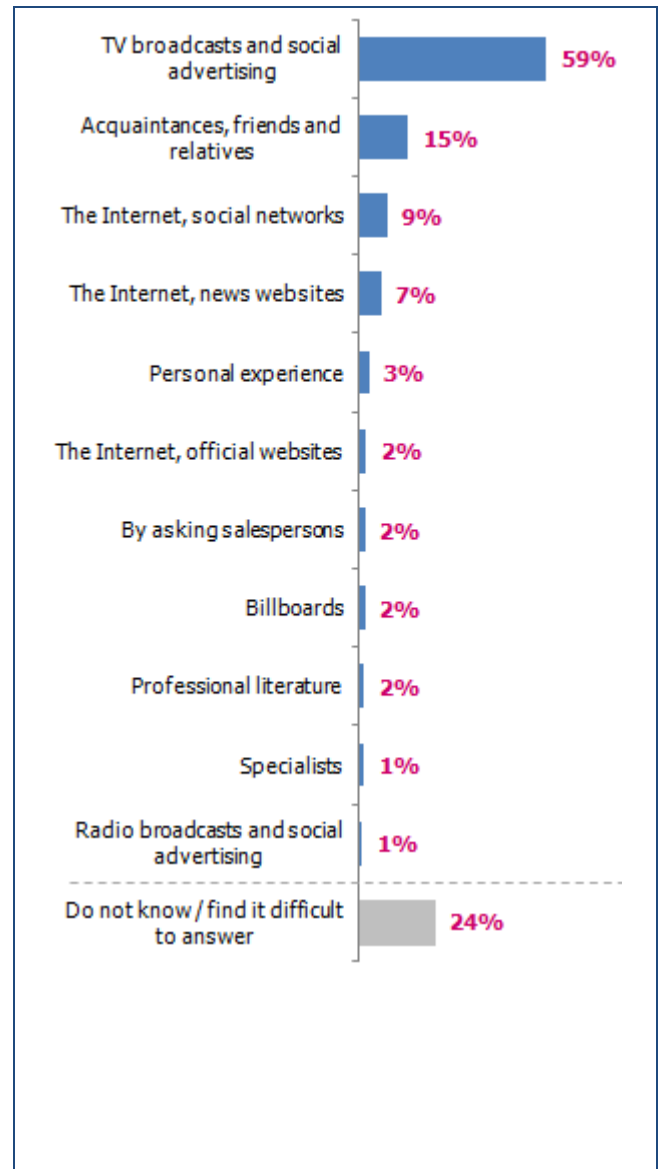


Chart 11 - Information sources for respondents' awareness of food-caused diseases (answers to a multiple-choice question)



* - Parasitic diseases, echinococcus, beef tapeworm, ascarid, etc;

** - High blood pressure, cholesterol;

*** - Dysentery, sclerosis, jaundice, meningitis, malaria, diathesis, skin diseases, joints diseases, foot and mouth disease (murrain), liver, kidney and lung diseases

Data in **Chart 10** come to suggest that the respondents have **mixed-up ideas about the causal effects** of the food-caused diseases. However, this is quite natural. One does not come across food-caused diseases every day, and therefore cannot improve their awareness through his/her own experience. Such findings are supported by the data in **Chart 11** detailing the information sources of food-caused diseases. Only 3% of the respondents claimed having gained relevant information from their own experience.

Television provides the main information flow on the food-caused diseases through health broadcasts and relevant news reports. It is quite noteworthy about the answers above that the internet sources on food-caused diseases are more popular.

3.2.2 Awareness of Cross-Contamination

The respondents' cross-contamination awareness appears to be quite low. Only 7% of them claimed to be aware of it and its causes (See **Chart 12**). Respondents from different settlements showed quite different awareness of cross-contamination. Hence, the respondents from Yerevan showed more than twice greater awareness (10%) as compared to those from villages (4%).

Chart 12 - Respondents' awareness of cross-contamination and its causes

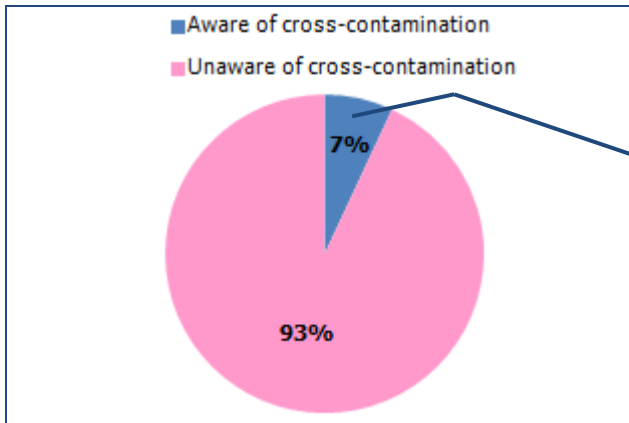
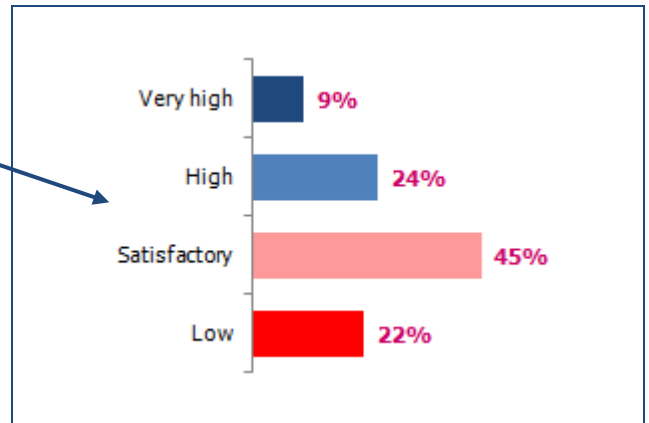
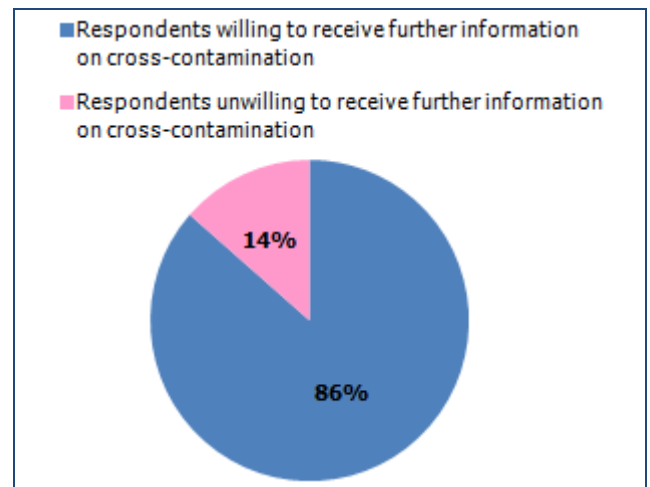


Chart 13 - Respondents' cross-contamination awareness level



According to the Survey findings, many of the respondents considering themselves aware of the cross-contamination (7% of the total) have merely heard something about it and actually have no clear idea of what it is. Thus, only 1/3 of the respondents aware of cross-contamination rated their awareness level as high (See **Chart 13**, ("Very high" + "High"). As for the others, they rated their awareness level as either satisfactory or low and said they wished to get further information.

Chart 14 - Respondents' need for further information on cross-contamination

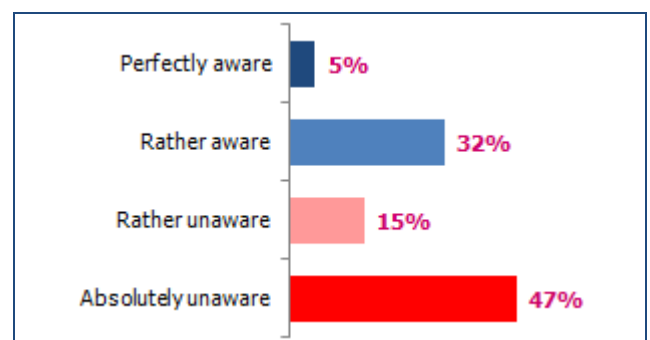


Along with the respondents with poor awareness of cross-contamination, those completely ignorant of it also asked for further information. According to the Survey, such respondents make up 86% of the total number (See **Chart 14**).

3.2.3 Awareness of Food Additives

Food additives are substances used in food manufacturing to add to the food some color or smell as well as to improve its flavor or extend its best before terms. On the one hand, the food-manufacturing industry obviously renders it impossible to refrain from using any food additives since otherwise food products would spoil shortly after manufacturing and lose their consumer appeal. On the other hand, products with food additives carry various risks for the consumer health. Therefore, countries all over the world have numerous legal acts regulating the use of food additives in food products. Relevant specialists exercise a particularly strict control over the use of E

Chart 15 - Respondents' awareness of food additives



coded food additives, with hundreds of species containing a long list of human health hazards and risks.

According to the Survey findings, the public awareness of the essential food additive issues appears low. Only 5% of the respondents consider themselves “Perfectly Aware” of this issue (See **Chart 15**). This group of respondents is aware of the E code on the food labels, as well as its numerous varieties and their hazardous and safe species, etc.

The respondents partially aware (answer: “Rather Aware” - 32%) of the food additives, even if ignorant of the E code, coloring agents, preserving agents and other additives, do believe that the food additives are hazardous to health. This group of respondents has vague and sometimes wrong awareness. Therefore, such groups and all the persons unaware of food additives should be deemed as the key target group of awareness raising campaigns.

The Survey results come to suggest that respondents from Yerevan show significantly increased awareness of food additives, while those from the other cities and towns showed relatively reduced awareness, and those from villages showed too poor awareness level. In the settlement above, the public awareness level (as for the number of the respondents considering themselves as “Perfectly Aware” and “Rather Aware”) made up 52%, 36% and 21%, respectively.

It can be also argued that women are better aware of the food additives, as compared to men; their awareness level makes up 39% and 30%, respectively.

3.2.4 Awareness of Food Products with Genetically Modified Organisms

The rapidly growing global population calls for new methods to ensure enhanced food manufacturing. Since 1970, the genetic engineering achievements have been also applied for this purpose. Today, by altering the genetic material of organisms (plants and animals), humans can generate organisms with new qualitative features called **genetically modified organisms (GMOs)**. For instance, this technique was used to generate incredibly frost-resistant tomatoes and potatoes destroying its traditional pest, etc. Presently, over 120 GMO plant species have been generated, including those of soy, corn, rice, cucumbers, tomatoes, wheat, potatoes and sugar beet.

The side effects of the altered food ingredients carry various health risks. The most obvious of such risks are allergic reactions. Relevant studies by various scientists come to prove that the more GMOs a person uses, the greater risks he/she runs to develop malignant blood tumors, as well as gastrointestinal and nervous system diseases.

Armenia also suffers the hazardous impact of GMO plants which appeared on the Armenian food market back in the early 1990s. The issues related to the GMO food products are regulated by the RA Law on Food Safety stipulating that *the labels in Armenian language on the food products, substances contacting food products, food and biologically active additives on sale in the RA shall contain the "genetically modified food" note if its content in the food product exceeds 0.9%.*¹ Hence, it can be stated that the GMO food constitutes an urgent and crucial issue in terms of human health and therefore, the public awareness of this issue shall range among the key objective.

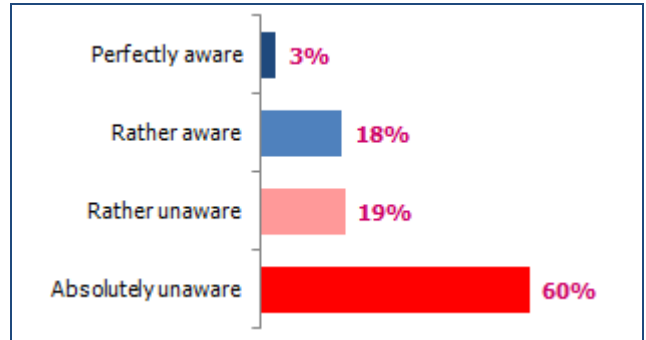
The Survey results come to suggest that the public awareness level of GMO food is even lower than that of food additives. Only 3% of the respondents consider themselves “Perfectly Aware” of this issue (See **Chart 16**). However, this group of respondents “Rather Aware” (18%), mostly highlighted the hazardous nature of the GMO food, whereas they had no clear idea of the reasons and risks of such hazards. Most respondents

¹ Extract from the RA Law on Food Safety, Article 8(3)(l)

saw no differences between the terms of GMO and food additives. Actually, only 2-3% of the respondents could clearly define the GMO food, its generation techniques and typical risks.

The Survey findings revealed the highest GMO food awareness level among the respondents from Yerevan (the number of the respondents considering themselves as "Perfectly Aware" and "Rather Aware" made up 33% of the total), followed by the respondents from the other cities and towns (19%) and villages (9%). The higher awareness level of the urban population is quite natural since they buy all (or almost all) the food products from sales outlets and come across the GMO food more often. Unlike them, the rural population, with many farming households, produce most foodstuff themselves and rarely come across any GMO products.

Chart 16 - Respondents' awareness of GMO food



3.2.5 Awareness of Hazards of Improperly Processed Milk Products

The animal products carry a long list of health risks. These risks are caused by the agents of diseases in the primary products (milk, meat) generated from ill animals as well as the potential violations of the storage conditions and processing technologies of such primary products.

In Armenia, small cattle-breeding farming households are quite common; such households have serious drawbacks in their livestock production settings and lack of relevant knowledge and conditions. In terms of safety regulations, the route of the livestock products from the site to the market is not perfect either. Most farmers still slaughter their cattle in their own yards and the initial milk storage and processing practices are also imperfect. For these and some other reasons, the food safety system is still unable to reduce to zero the health risks caused by livestock products. As a result, the public occasionally witnesses outbreaks of various diseases caused by use of improperly processed animal products.

The Survey findings showed that most of the respondents realized the hazards of improperly processed milk products. 63% of such respondents considered themselves as "Perfectly Aware" or "Rather Aware" (See **Chart 17**).

Chart 17 - Respondents' awareness of hazards of improperly processed milk products

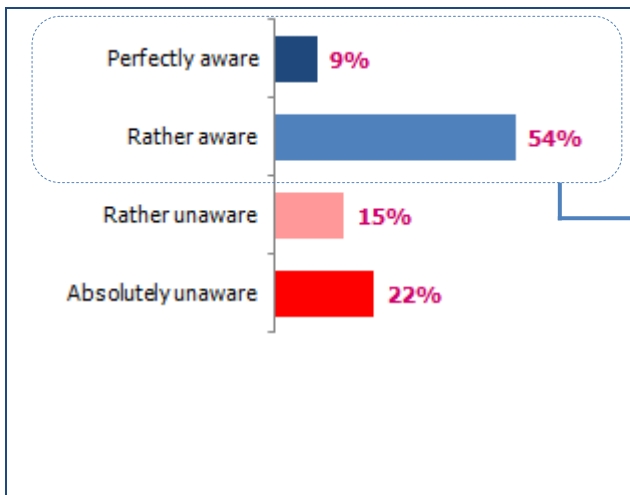
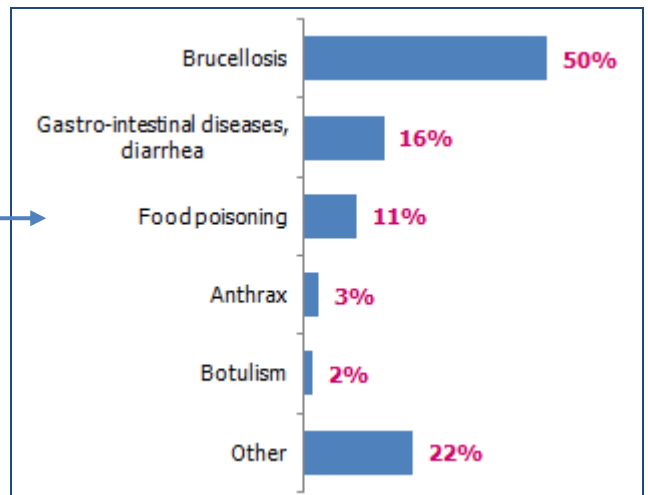


Chart 18 - Diseases caused by improperly processed milk products, according to respondents (answers to a multiple-choice question)

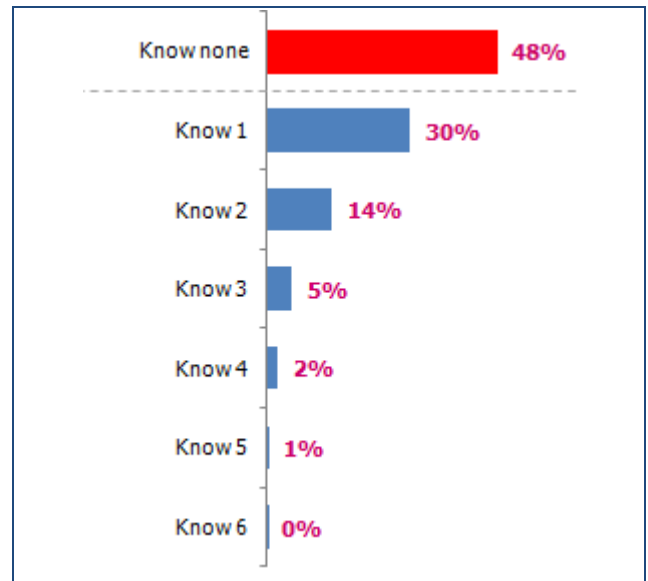


Generally, the respondents knew quite clearly that the improperly processed milk products might cause various diseases. Even those of them who provided general answers, mentioned digestive system diseases (particularly, diarrhea), bacterial food poisoning, infectious diseases, etc. Such answers were classified under the “Other” group in **Chart 18** (22%). This group also comprises the small rate of answers, such as the foot and mouth disease (murrain) (2.5%), tuberculosis (2%) and allergy (1%). As for the respondents’ precise examples of the diseases caused by the improperly processed milk products, the largest rate of answers covered the diseases below: brucellosis (50%), gastrointestinal diseases (16%, including salmonellosis (2%)) and anthrax (3%).

3.2.6 Awareness of Hazardous and Toxic Substances in Fresh Fruits and Vegetables

The hazardous and toxic substances both in the fresh fruits and vegetables and related to their production and maintenance make up another set of human health risks. According to the Survey findings, 52% of the respondents named at least 1 such substance. Yet, it might be not quite right to say that the 52% above is the population’s awareness rate of the hazardous and toxic substances in fresh fruits and vegetables. The matter is that the number of such substances is actually very large and the respondents’ awareness levels differed a lot. Some of them could name only one hazardous and toxic substance, while the others named several of them. One of the respondents named a maximum of 6 such substances, while 319 respondents named only 1 of them (See **Chart 19**).

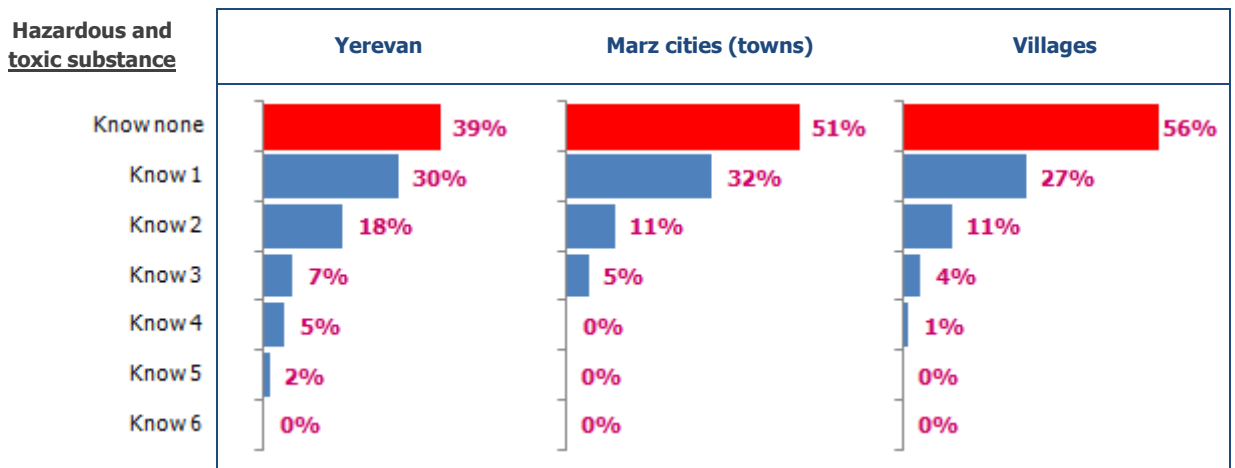
Chart 19 - Respondents’ awareness of hazardous and toxic substances in fresh fruits and vegetables



Respondents from Yerevan, marz cities (towns) and villages showed marked differences in their awareness of the hazardous and toxic substances in the fresh fruits and vegetables. Like their awareness on some issues above, the **respondents from Yerevan appeared to be more aware and competent, as compared to those from marz cities (towns) and villages.** Such differences are detailed below:

- ▶ The respondents absolutely **ignorant** of the hazardous and toxic substances in the fresh fruits and vegetables made 39% in Yerevan and 56% in villages (See **Chart 20**);
- ▶ The respondents from Yerevan are aware of **more types of** hazardous and toxic substances in the fresh fruits and vegetables, as compared to those from both marz cities (towns) and villages;
- ▶ The respondents from Yerevan expressed more **“radical” positions** on the hazardous and toxic substances, regardless of whether they were right or wrong. As compared to villages, in Yerevan, the use of any substance (pesticides, chemicals, fertilizers) for the purposes of fruits and vegetables manufacturing and long-term preservation is more often perceived as the use of hazardous and toxic substance. For instance, fertilizers are considered hazardous and toxic by 37% of the respondents from Yerevan and only 17% of rural respondents.

Chart 20 - Respondents' awareness of hazardous and toxic substances in fresh fruits and vegetables, by settlement



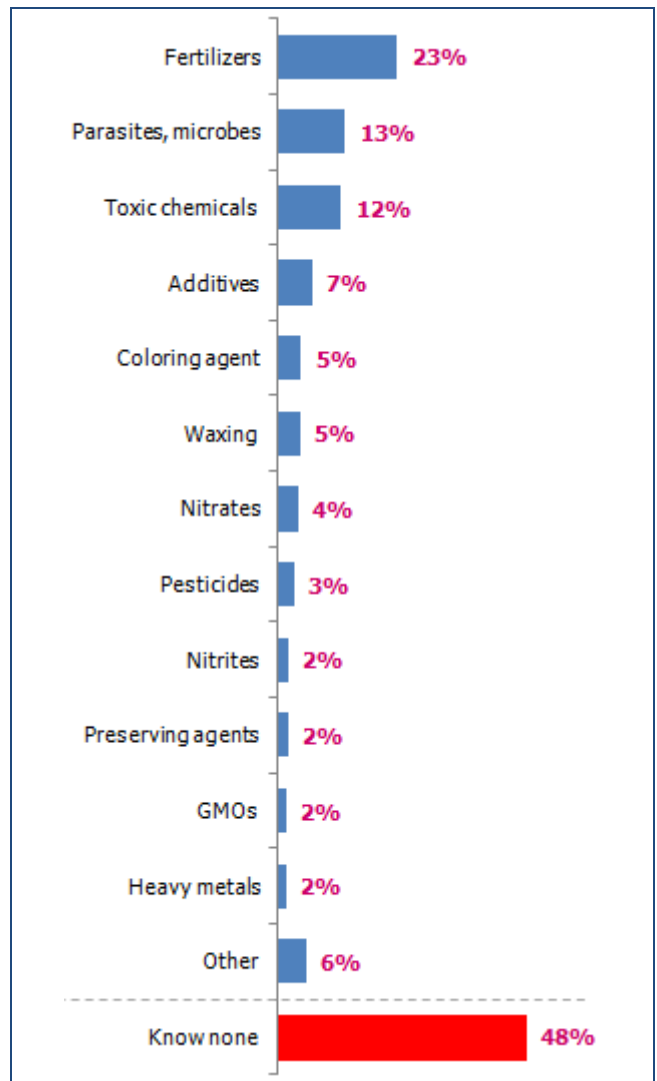
The respondents aware of the hazardous and toxic substances in fresh fruits and vegetables (52% out of the total) named a total of 13 such substances. The **Chart 21** - details the statistics of their unedited answers.

The respondents' answers suggest that they cannot exactly differentiate between the hazardous and toxic substances in fresh fruits and vegetables. Below are some of such examples:

- ▶ Some respondents consider: coloring and preserving agents, etc. as hazardous or toxic and call them additives grouping them all under one word;
- ▶ Some other respondents consider additives to be hazardous, however, fail to specify the types of additives in their answers;
- ▶ The respondents who mentioned nitrites as examples of a hazardous or toxic substance considered them both a preserving agent and a toxic chemical.

The respondents admitted that their awareness of the hazardous or toxic substance in fruits and vegetables was incomplete. Therefore, when asked to rate their awareness level, only 10% of the so-called aware respondents (52% out of the total) considered themselves as "Perfectly Aware" and another 40% as "Rather Aware". As for the others, they can name some of such hazardous and toxic substances but still consider their awareness level very low.

Chart 21 - Respondents' awareness of hazardous and toxic substances in fresh fruits and vegetables (answers to a multiple-choice question)



4 BEHAVIORAL ATTRIBUTES OF FOOD-BUYERS

4.1 FREQUENCY AND VENUES OF FOOD-BUYING

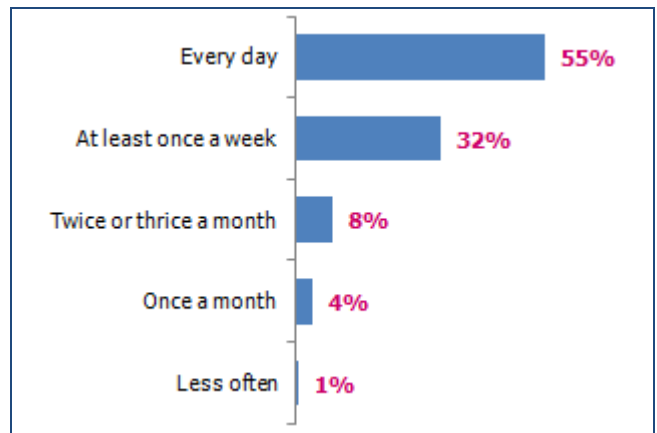
4.1.1 Food-Buying Frequency

Food is ranked among products which people buy most often. Below are the key reasons for this:

- ▶ Food products range among group of daily consumption goods,
- ▶ For some food products, the very short storage period renders it almost impossible to store them and shop less often.

According to the Survey findings, 55% of the respondents buy food **every day**. As for the others, even if they do buy food regularly, their frequency still differs (See **Chart 22**). People buy food with various frequency due to at least 3 reasons below: a) extent of person's responsibility or functional role in food-buying; b) nature of food-buyers' activities or daily life; and c) the household's purchasing power.

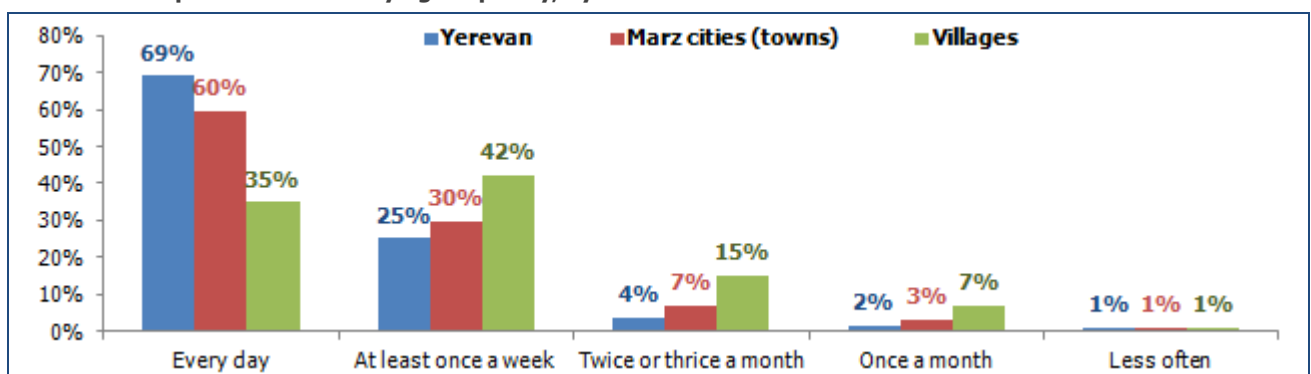
Chart 22 - Respondents' food-buying frequency



1. **Person's functional role in food-buying:**
 - ▶ While all the surveyed persons are food-buyers, they all play various roles in their households in this regard. The **main food-buyers of the households** (73% of the total, see **Chart 6**), buy food some 2 times more often (63% of them buy food every day) as compared to **other members** of their households (32% of them buy food every week).
2. **Nature of food-buyers' activities or daily life:**
 - ▶ Based on the nature of their activities or daily life, many food-buyers prefer storing some food products. This respondent group has some sub-groups. Thus, some respondents store food products (mostly short-term for up to 1 week) to **spend less time on buying food**. Another group of respondents stores food products **out of the opportunity or habit to have a constant food reserve**. This group also comprises rural households. The rural households with the opportunities to produce food products (e.g. bake bread or keep livestock and have their own source for milk and milk products) do not need to buy food every day and as for the daily consumption products not produced by them, they buy and store such goods in relatively large quantities (e.g. flour, potatoes, sugar, butter, vegetable oil).
3. **Purchasing power of households:**
 - ▶ A country with an official poverty rate of 32% (twice larger according to non-official data) shows a painful picture of the reality as the low purchasing power of the poor and disadvantaged households renders them unable to earn their daily bread. Disadvantaged household do not always buy food every day.

Most often it is the urban respondents, including respondents from Yerevan, who buy food every day.

Chart 23 - Respondents' food-buying frequency, by settlements



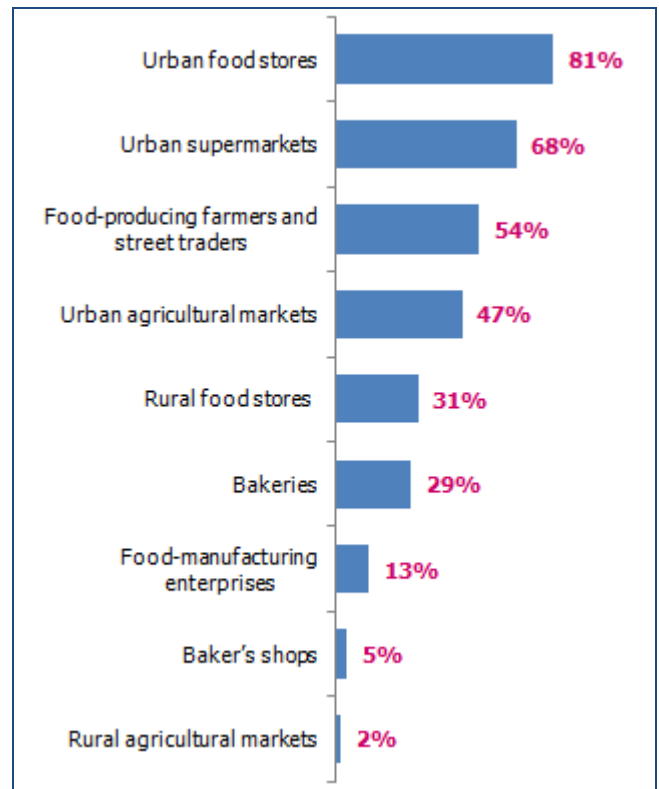
The active food-buying role of respondents from Yerevan relies on the 2 factors below: a) in Yerevan, poverty rate is lower as compared to that in the marzes, and b) there are almost no natural farming households in Yerevan, and every day people have to buy highly consumable food products with short storage terms, such as bread, milk and sour cream.

4.1.2 Shopping Venues

The respondents generally mentioned 10 types of shopping venues where they usually bought their food products (See **Chart 24**). Based on the extensive list of the food products, the respondents claimed to buy their food at various shopping venues. For instance, they buy fresh fruits and vegetables at both urban supermarkets and stores and agricultural markets, and bread at both supermarkets and stores and its production venue (bakeries) or baker’s shops. Based on the Survey results, the Consultant estimated that each respondent visited **an average of 4 shopping venues** to buy his/her food.

Most respondents (**81%**) mentioned the **urban food stores** as their food shopping venues. This rate significantly exceeds that of **supermarkets** (68%), considering that the latter are much larger as compared to food stores and has improved considerably and increased in numbers in recent years. The matter is that the recent trade concentration at supermarkets has been mostly typical of Yerevan, with only 36% of the Armenian population.² As for the marz cities (Gyumri, Vanadzor, Ejmiatsin, etc) this process is quite limited there. Even if the whole population of Yerevan bought food products exceptionally at supermarkets, they still would not be able to be visited more often than the middle-sized food stores in Yerevan and other cities and towns in the marzes.

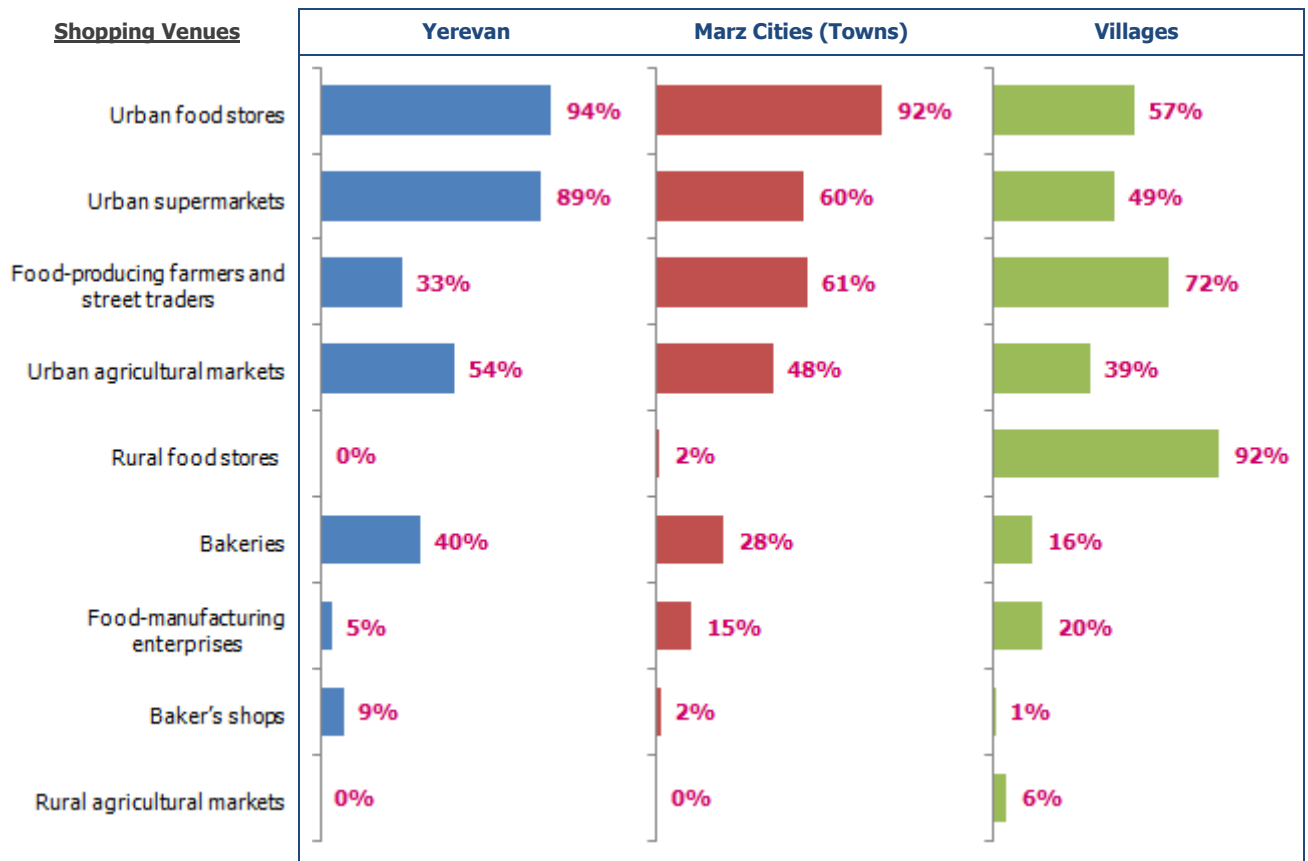
Chart 24 - Shopping venues where respondents buy food (answers to a multiple-choice question)



The remarkable point about the food shopping venue statistics is revealed by breakdown of respondents by their settlements.

² Source: RA Permanent Population Rate as of April 1, 2015, NSS, 2015.

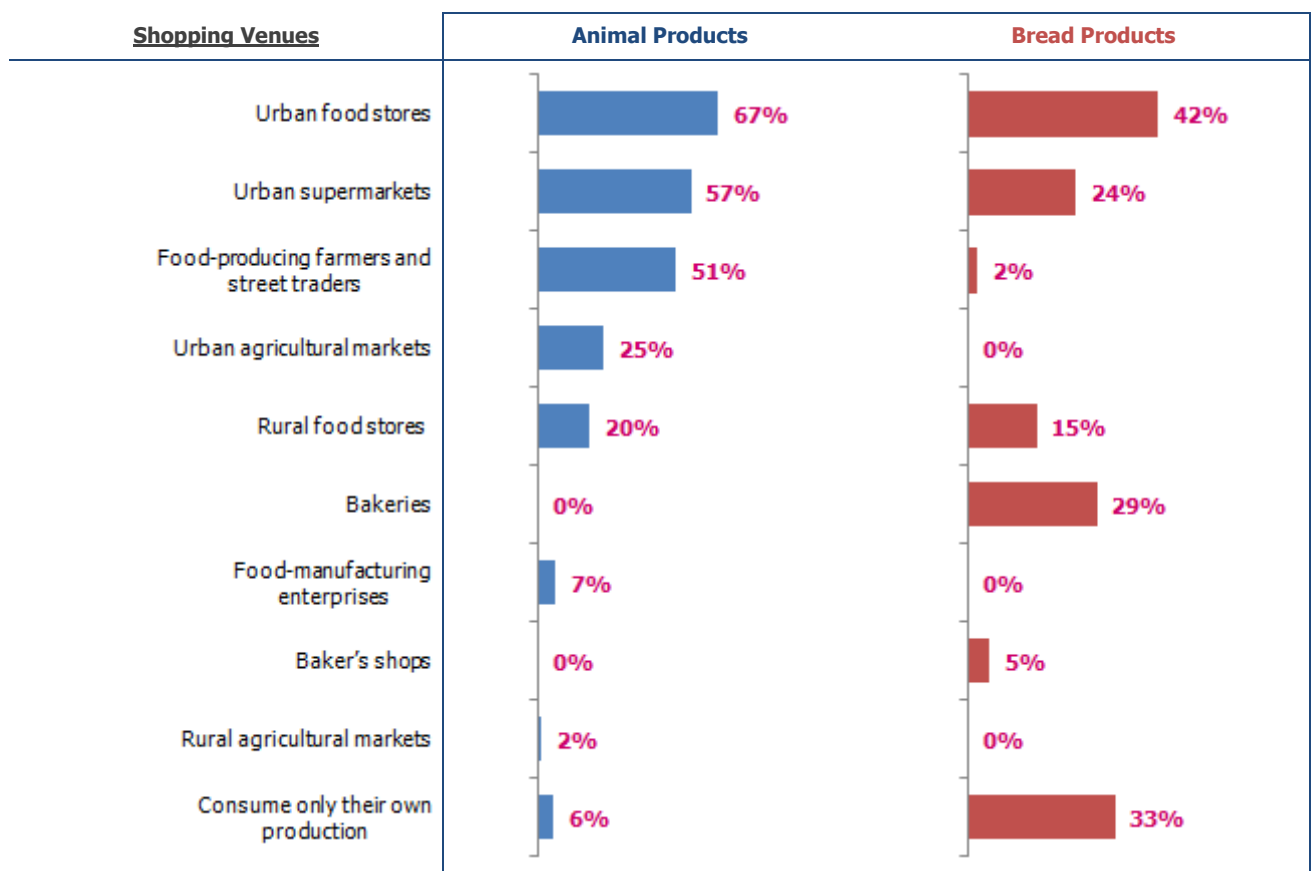
Chart 25 - Shopping venues where respondents buy food, by settlements (answers to a multiple-choice question)



1. Respondents from Yerevan buy food from both small food outlets (94%) and supermarkets (89%). While supermarkets generally serve as major shopping venues, small grocery stores, mostly located near the respondents' residence (apartment or house), serve as their daily shopping venues.
2. Rural respondents buy their food both **in villages, and in towns and cities** (including Yerevan), whereas urban respondents buy their food **in cities (towns) only**.
3. The closer the respondents' place of residence to food production centers (e.g. villages with production of fresh fruits and vegetables, meat, milk and dairy products), the more common is the practice of buying food products directly from the farmers and producers. This rate for Yerevan constituted 32%, for marz cities (towns) 61%, and for villages, 72%.
4. The indicator for the street food trade still remains quite high 54%. While, respondents from Yerevan are less inclined to buy any food from such places (33%), those from the marz cities (towns) (61%) and villages (72%) are more inclined to do so.

The food list is quite extensive, and each of such products has its typical sale venue. For instance, fruit and vegetable sales are concentrated in supermarkets and agricultural markets; dairy products sales – in supermarkets, shops and street trading segment, bread and bread products – at stores, supermarkets, bakeries and baker's shops. The Chart below shows the different sales venues of animal food (meat, meat products, milk and dairy products, fish and fish products, crayfish, eggs) and bread and bread products.

Chart 26 - Shopping venues where respondents buy animal food and bread and bread products (answers to a multiple-choice question)



Another noteworthy finding in the Charts above is probably the **rate of bread products produced (baked) by the respondents' households for own consumption**. The average indicator of 33% for Armenia fails to provide a clear idea of the situation as baking bread for household's own consumption is quite a common practice in villages even today (68% of the rural respondents mentioned that they did not buy any bread but rather baked it for their household), and therefore this indicator might seem quite natural. Nevertheless, the Survey findings come to show that the habit of baking bread for household's own consumption has already been rooted in towns and cities as well. Particularly, 6% of respondents from Yerevan and 29% of those from the marz cities (towns) stated that they (or their household members) baked bread for their own consumption. This situation is the immediate consequence of the difficult social and economic situation for considerable portion of the population.

For purposes of this Survey, the food street trade was highlighted as a most problematic issue and therefore became subject to a more thorough study below.

4.1.3 Buying Food at Street Trade Venues

The street trade practices range among the hugest food safety challenges. Actually, such practices deserve a special attention since they carry most serious food safety risks and are quite widespread (according to **Chart 24**, 54% of food-buyers purchase their food products from food-producing farmers or resellers at street trade venues).

Street vendors are individual entities that might be both the producing farmers and their product resellers. It turns almost impossible to identify the origin of the food products circulated and sold in this chain. The street food trade relies on 3 key factors: a) confidence in the salespersons (street vendor) and if this factor is missing, b) the marketable state of the food product and/or flavor and smell features, and c) price. Typically, in this case there is no need to mention any other product attributes, e.g. label, labeling, document of origin, production date and even any food safety document whatsoever.

Various food products are sold by the street trade sector. According to the Survey results, the respondents named 15 products that they usually bought from street vendors (See **Chart 27**). The best sold products include fruits and vegetables, herbs, and those with significant sale volume: fish, dairy products (such as homemade yogurt) and cheeses, milk and even fresh meat.

Actually, the street food trade is less widespread in Yerevan as compared with marzes (See **Chart 28**).

This is mostly accounted for by the fact that the respondents from Yerevan in their capacities of both food-buyers and consumers are more aware of the food hazards and risks and show prudence while buying food of unknown origin and manufactured in non-plant settings. Also, one cannot exclude that the food sale oversight practices in Yerevan are more efficient and consistent as compared to those in the marzes.

Chart 27 - Food products bought by respondents from street vendors (answers to a multiple-choice question)

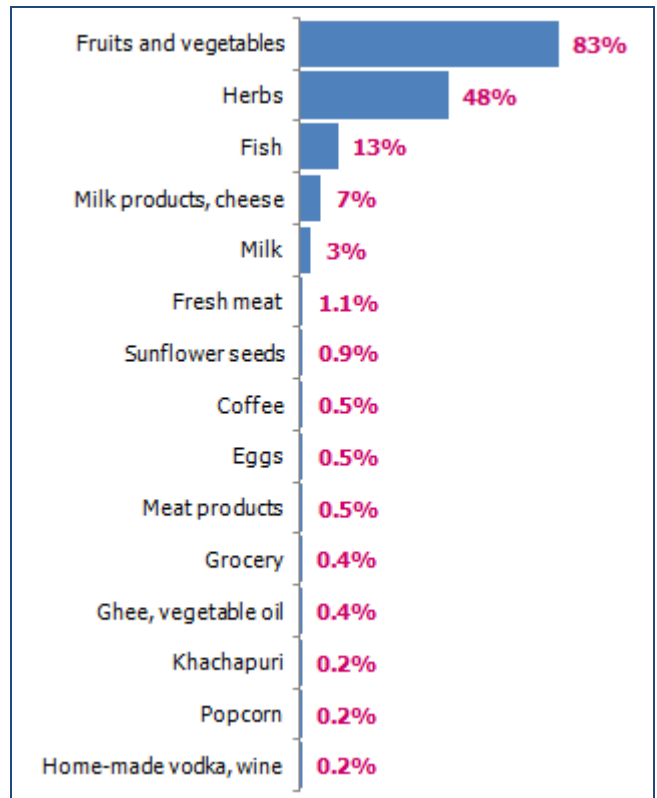
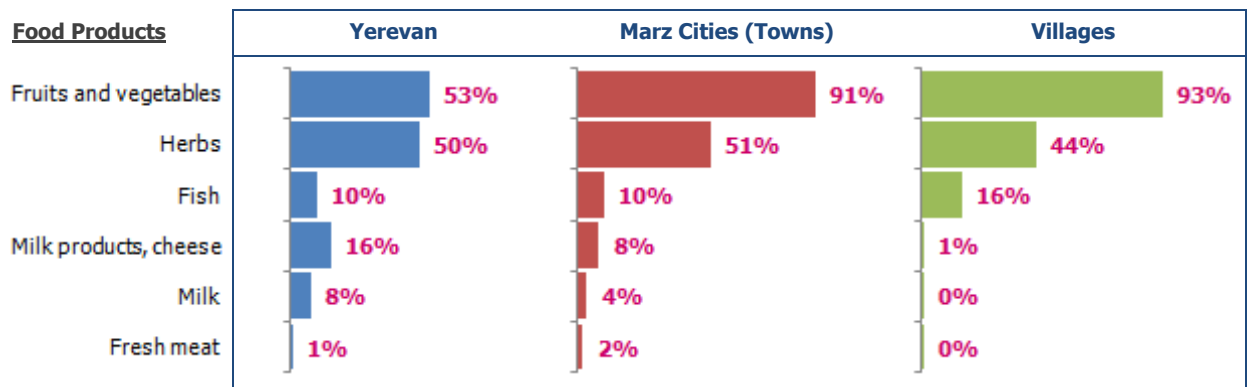


Chart 28 - Food products bought by respondents from street vendors, broken down by settlements (answers to a multiple-choice question)



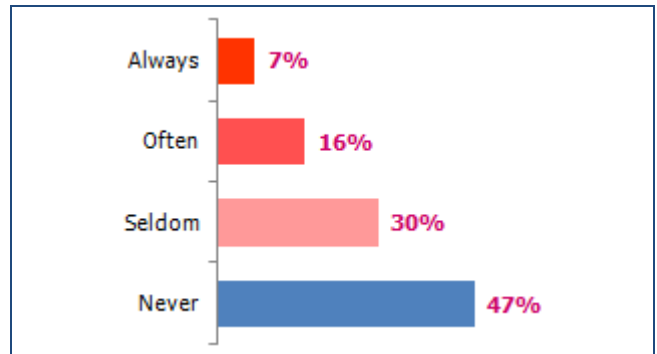
As for villages, the so-called "street trade" also covers the whole agricultural commodities exchange process, which is quite extensive.

To assess the complexity of combating or completely regulating the street trade, one will have to answer the 2 questions below:

- ▶ How often do consumers buy food at street trade venues? and
- ▶ Why do consumers buy food at street trade venues?

The answer to the first question is provided by the indicator showing how often respondents buy food products at street trade venues (See **Chart 29**). Accordingly, only 7% of the respondents “always” buy food products from street vendors. Again, this indicator is higher for the respondents from marzes. As for the respondents “often” buying food from street vendors, this rate is larger and the respondents from Yerevan also contribute to its growth. This might be accounted for by the fact that the practice of buying milk and milk products from street vendors is still quite widespread among Yerevan population.

Chart 29 - How often do respondents buy food products at street trade venues?



The answer to the second question on why consumers buy food at street trade venues comes to complete the current picture. Thus, the respondents mentioned a number of reasons, with the main one indicating that such venues are **close to their houses** and therefore convenient. This reason was provided by **46%** of the respondents. Another **11%** of respondents mentioned a similar reason, namely that by shopping at street trade venues they can **save some time**.

Cheap prices (37%) also range among the main reasons for buying food at street trade venues. The respondents in this group believe that the street vendors selling their own products (mostly fruit, vegetables, dairy products and cheese) offer better prices as compared to market resellers, fruit and vegetables stores or supermarkets.

20% of the respondents consider the food products sold at street trade venues to be **fresher**, and another **9%** consider them to be **of a higher quality**.

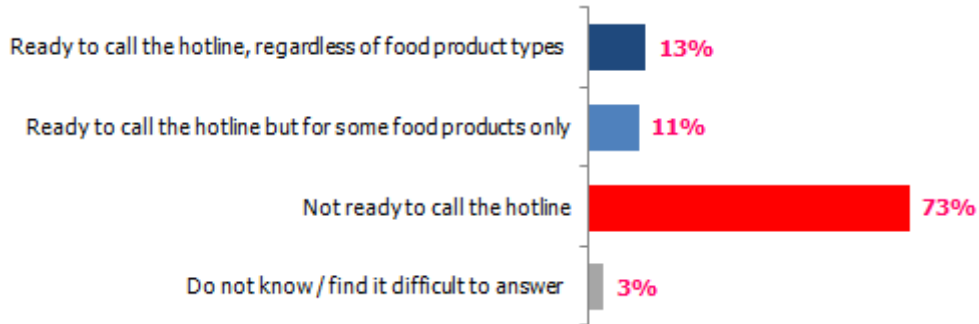
4.2 WILLINGNESS TO USE FOOD SAFETY HOTLINE

Food-buyer’s key behavioral attributes cover rapid reaction upon detecting any food safety interferences or irregularities. This Report highlights this issue from different perspectives (in the next sections). This Section particularly traces respondents’ willingness to use food safety hotline, as necessary. This issue was discussed only with the respondents aware of such a hotline.

As already mentioned in previous sections³ the surveyed food-buyers showed quite a poor awareness of the SSFS hotline; hence, only 39% of the respondents were aware of the hotline and only 1% of them knew its number. The 39% of the respondents above were asked **whether they had ever called or would call the hotline once they came across any irregularities while shopping**. For the purposes of this study, irregularities shall mean products with expired best-before date, without Armenian labeling or product label, with damaged package, breach of storage conditions, etc. The chart below contains the answers to this question.

³ See **Section 0 Public Awareness of Food Safety Hotline and Information**, p. **23**

Chart 30 - Respondents' willingness to call the SSFS hotline upon coming across any irregularities



Thus, 73% of the respondents aware of the hotline stated that they would not call the hotline if they ever came across any irregularities while buying food. Naturally, a question arises: why? According to the Survey results, **such behavior of food buyers does not only depend on their ignorance of the hotline number**, what is more, it is not even the main reasons for not using the hotline. Instead, the respondents mentioned a series of various other reasons that could be classified in the 2 groups below:

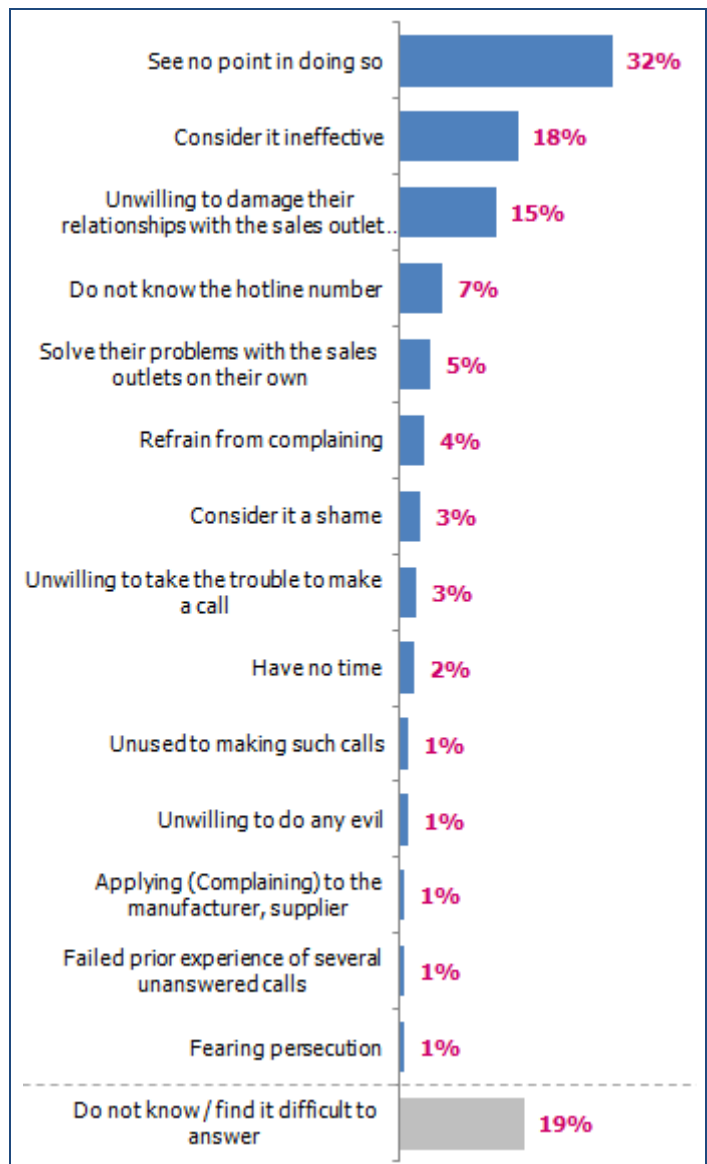
1. **lack of any confidence** in resolving the issue by calling the hotline, and
2. **social and cultural features** of the Armenian society.

Lack of confidence constitutes the biggest challenge. Half of the number of respondents (50%) unwilling to call the hotline either **see no point in doing so** or **consider it ineffective** (see [Chart 31](#)).

Some of the respondents detailed their positions. Particularly, they consider the general food trade to be concentrated within large supermarket networks, including Yerevan City and SAS supermarkets, under the patronage of the authorities. Therefore, the respondents do not believe that the SSFS can take any preventive or punitive actions against such supermarkets. While the Consultant refrains from assessing the impartiality of such positions, obviously, there is a lack of confidence in the SSFS oversight function which is a handicap in fostering the SSFS-buyers partnership.

Some other reasons for not using the hotline rely on the social and cultural attributes of the Armenian society; particularly, some of the respondents claim solving their problems on their own (5%), refrain from complaining (4%) or consider it a shame to use the hotline (3%), are unwilling to take the trouble to make a call (3%) or have no time (2%), are unwilling to do any evil (1%) etc.

Chart 31 - Respondents' reasons for not using SSFS hotline (answers to a multiple-choice question)



When broken down by respondents' settlements, these answers (on not using the SSFS hotline) reveal some noteworthy features. The Table below covers these answers as classified in larger groups.

Table 15 - Respondents' reasons for not using SSFS hotline, broken down by settlements (answers to a multiple-choice question)

Reasons for not calling the hotline	Settlements			Armenia
	Yerevan	Marz cities (towns)	Villages	
Find it pointless, lack confidence or trust in its efficiency	64%	44%	43%	50%
Unwilling to damage their relationships with the trader	8%	17%	19%	15%
Do not know the hotline number	8%	5%	7%	7%
Solve their problems with the trade venue on their own, refrain from complaining and consider it a shame	8%	12%	15%	12%
Unwilling to take the trouble to make a call or have no time	11%	1%	2%	5%
Unwilling to do any evil	3%	0%	1%	1%
Unused to making such calls	3%	1%	0%	1%
Fearing persecution	1%	0%	1%	1%
Failed prior experience of several unanswered calls	1%	1%	0%	1%
Applying (complaining) to the manufacturer, supplier	0%	0%	2%	1%
Do not know / find it difficult to answer	8%	24%	24%	19%

Based on these findings, the Consultant arrived at the conclusions below:

- ▶ The level of distrust in the SSFS appears to be higher in Yerevan, as compared with the marzes. Among men, such distrust level is particularly higher reaching 68%. This rate for women makes 46%;
- ▶ It is mostly the marzes and particularly urban food-buyers who are more concerned about not damaging their relationships with the trade venues. The main reason for this is that buying food for credit or payment by installments is still a common practice in marzes. Given its difficult social situation and unstable annual cash flows, the rural population considers such practices very important. Therefore, people prefer reliable relations with some sales outlets to their food safety issues;
- ▶ The food-buyers from marzes (cities (towns) and villages) appear to be more cautious and conservative in their attitudes than those from Yerevan. The rate of food-buyers in marzes resolving their food-safety related issues on their own and without any public protest, almost twice outnumbers that of buyers from Yerevan.

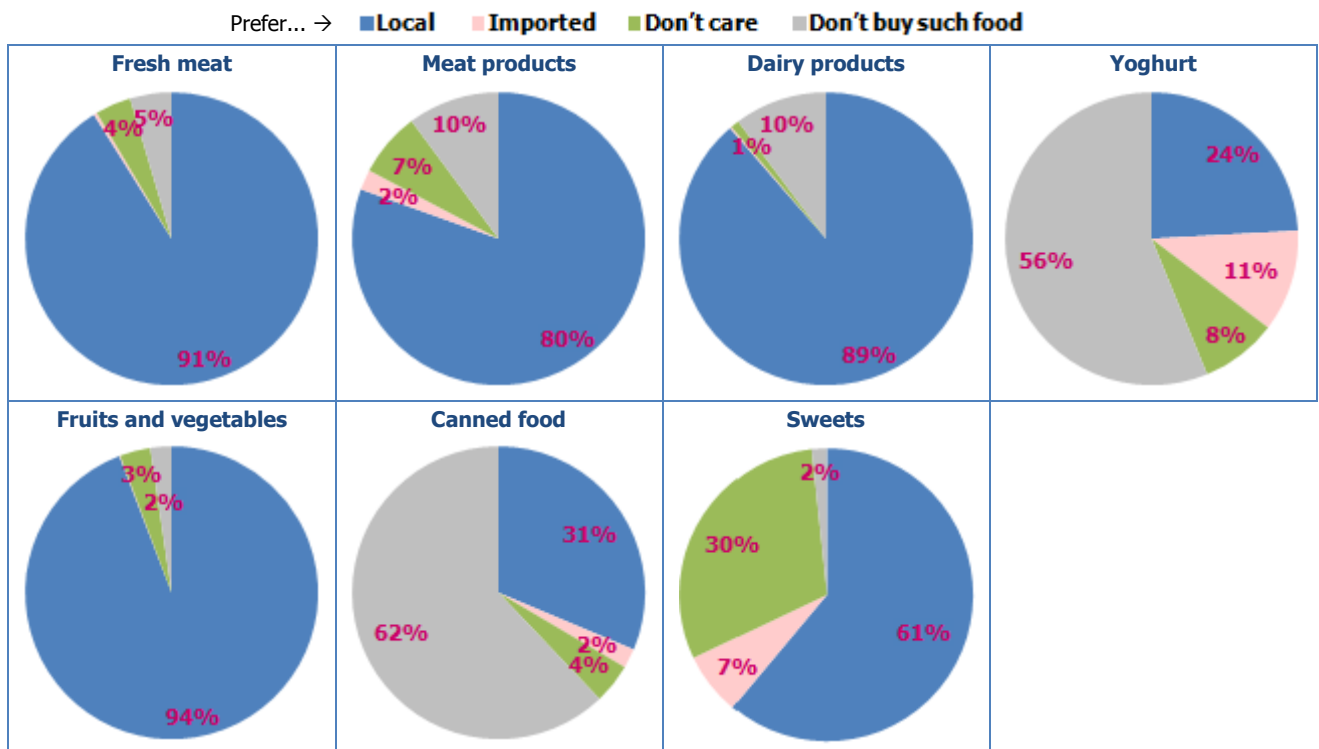
4.3 BUYERS' PREFERENCES AS TO FOOD ORIGIN

As for a series of food products, the Armenian buyers and consumers definitely prefer local production; these findings are supported both by this Survey and some preceding ones. Within this Survey, 6 types of food products were initially selected to seek the buyers' feedback. Such products included: fresh meat, meat products, milk products, fruits and vegetables, canned food and sweets selected for the 2 reasons below: a) they are widely consumed; and b) they are supplied on the Armenian market by both the local and imported products.

The fieldwork stage revealed a significant number of answers like: *"We prefer our dairy products local but yogurts imported."* Therefore, the Consultant considered yoghurt separately from the other dairy products not to face any problems while analyzing the answers.

As for the origin of the 7 food products (including yoghurt) above and other similar products in their groups, the respondents preferred the local (Armenian) production.

Chart 32 - Respondents' preference as to the origin of some basic food products



Prior to detailing the reasons for respondents' preferences, it should be noted that the “**Don't buy such food**” answers do not mean that such products are not consumed by the respondents' households, but rather are bought by any other household member. Yet, yoghurt and canned food make an exception.

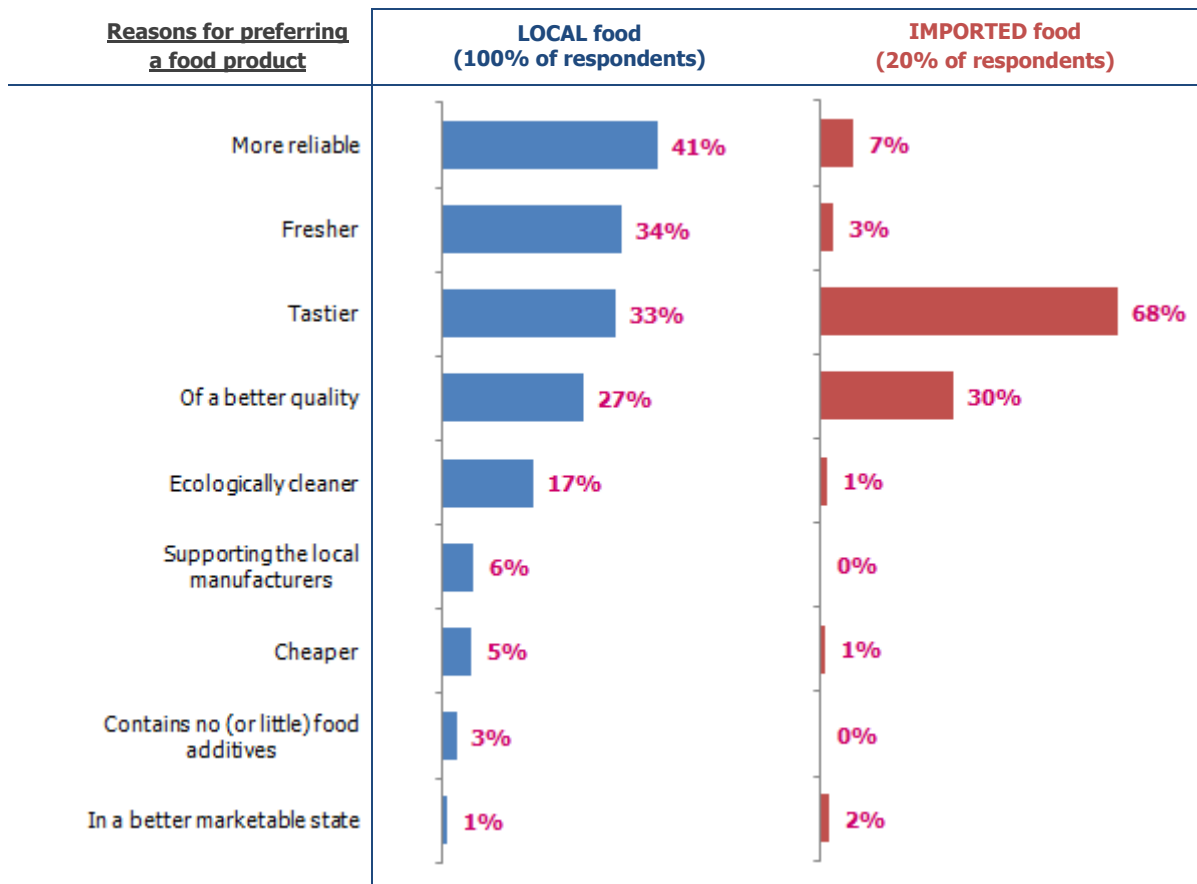
Yoghurt-buyers made the largest number among the respondents from Yerevan making up 29% of the total number of such respondents. However, most of the respondents from both Yerevan and marzes stated that neither they nor other members of their households bought yoghurt.

As for **canned food**, most of the respondents claimed that their households did not consume any imported canned food. This is mostly accounted for by the fact that **most of the households not buying any canned food produce such food themselves**. Such practices are quite popular, though with a little bit limited scope in Yerevan and quite widespread in marzes and particularly in villages. To get a general picture of its scope, the Consultant compared the number of respondents not buying canned food in Yerevan, marz cities (towns) and villages. Thus, it follows that the number of such respondents in Yerevan totals 42%, in marz cities (towns) 66% and in villages 82%.

The Survey results showed that the buyers' preferences as to different types of food products differed as well. Almost all respondents preferred local fresh meat, dairy products, fruits and vegetables. As for imported food products, respondents preferring imported yoghurt, sweets and meat products made up a significant number. However, no respondent preferred either exclusively local or imported products.

The **reasons for respondents' preferences** for the product origin also differ. As for preference for local food products, the number of respondents sharing their opinion totaled 100% since every respondent preferred at least one of the food products considered above. As for the respondents preferring at least 1 imported food product, they made up 20% of the total. They all shared their views on the reasons underlying their choices.

Chart 33 - Reasons for respondents' preference as to food origin (answers to a multiple-choice question)



According to the respondents, the main reason for their preference for local food products is that they are more reliable, fresh, tasty and of a better quality. Actually, the respondents reasoning for the local production are based on their belief that the local manufacturers use no (or very little) food additives, chemicals and fertilizers. There is a generally held opinion that the local food reaches its consumers quite soon and is therefore relatively fresh.

As for the imported food products preferred by the respondents, they highlighted the taste and quality as the first and second reasons, respectively.

4.4 FOOD-BUYER'S SHOPPING BEHAVIOR

4.4.1 Key Shopping Factors

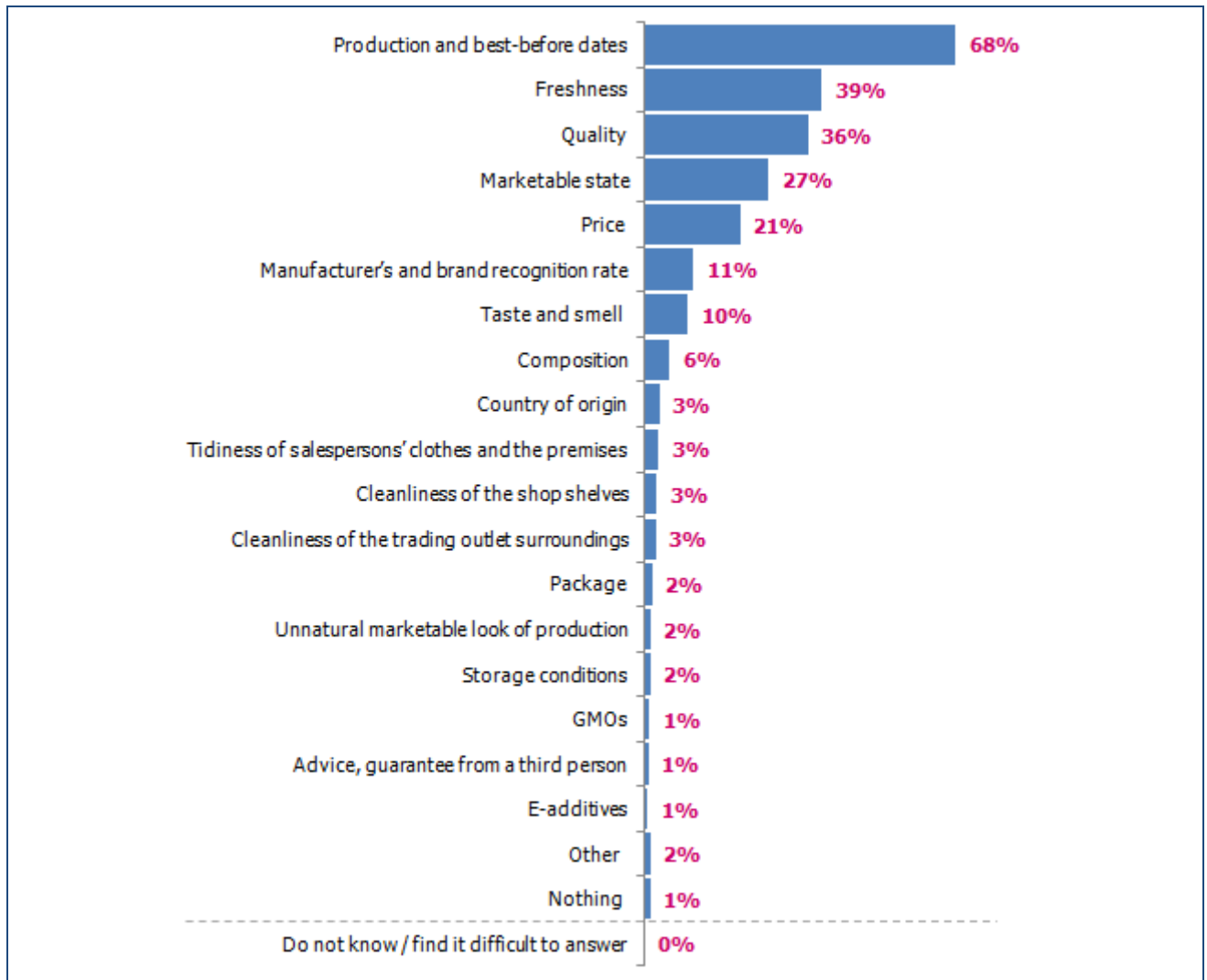
While buying food, the respondents examine and analyze numerous descriptive factors. Based on respondents' answers, they can be classified in the 4 groups below:

1. Respondents prioritizing **food labeling or food-safety factors**, i.e. best before date, composition, etc. Such respondents are quite meticulous buyers;
2. Respondents prioritizing the **food prices**. When buying food, these respondents first of all consider their purchasing power and are even ready to buy products with the best-before date expired for some time;
3. Respondents prioritizing the **food origin, brand recognition rate**; such respondents believe that developed countries or globally renowned companies manufacture food products in strict observance of safety rules and applying up-to-date technologies. Therefore, such food is considered to be more secure and of a higher quality.

4. Respondents prioritizing the **sanitary settings** where food products are sold; such respondents pay a special attention to the tidiness of the shop shelves, trading outlet surroundings and salespersons' clothes.

Nevertheless, it still appears quite difficult to classify the respondents in the groups above. The matter is that when buying food, they pay attention to **several factors at a time, an average of 2.4 factors**. Many answers feature that food-buyers take into consideration the *"price and quality", "price, best-before date and freshness," etc.* Therefore, the Chart below shows all the factors considered by respondents when buying food, without any classifications.

Chart 34 - Factors considered by respondents when buying food (answers to a multiple-choice question)



The respondents from Yerevan appear to be **more meticulous food buyers**. Thus, when buying food, they consider and analyze 2.6 descriptive factors of the food product, whereas food-buyers in marzes (both towns and villages) pay attention to an average of 2.3 factors.

4.4.2 Food Label Issues

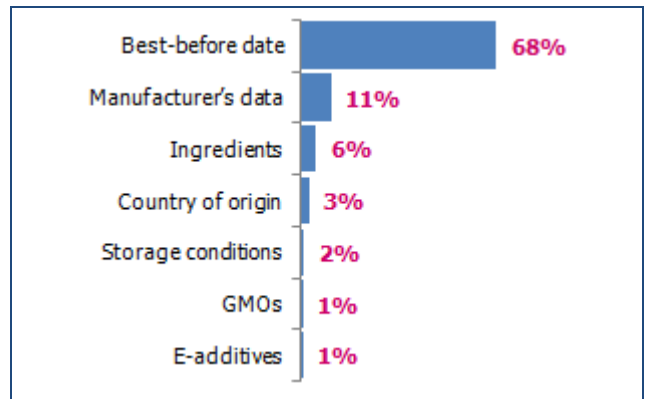
The data in the previous section comes to show that about 1/3 of the factors considered when buying any food comprise the data covered in the food labeling, mostly the **best-before date: 68%**. When indicating the next key factor (**food freshness** (39%)), most of the respondents as well meant the food products with their best-before date unexpired. No doubt, this is quite a positive factor. Yet, the buyers' food-safety awareness and behavior cannot be limited to their concern with the best-before date only. The other food

label data are also very essential, especially for people appreciating healthy lifestyle or those with special dietary habits or health problems, or those for whom some of the food ingredients are contra-indicated.

The RA Law on Food Safety stipulates that the food label shall contain the information below:

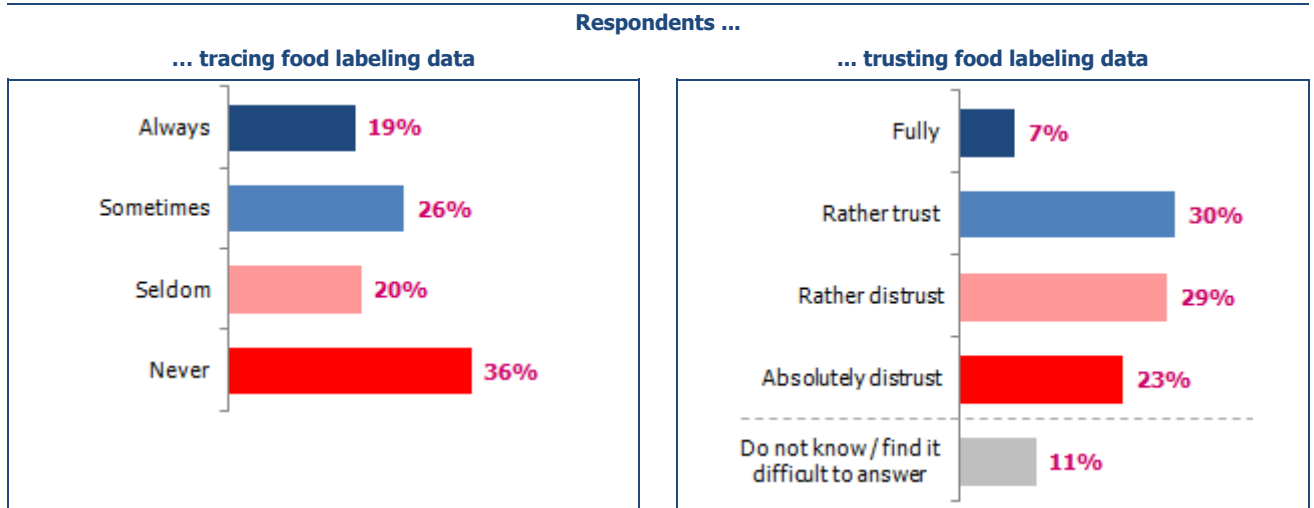
- ▶ name, net weight or volume of the food product, if it is packaged;
- ▶ list of food additives in the food product;
- ▶ production date and expiration date;
- ▶ guidance on how to use the food product necessary for its proper use (especially for medicinal, dietary or baby food) and any special indications whatsoever for its storage and use;
- ▶ manufacturer’s data;
- ▶ country of food product origin;
- ▶ for alcohol beverages, exact percentage content of alcohol;
- ▶ nutrition and energetic value;
- ▶ bar-code, and
- ▶ other data as required by normative documents.

Chart 35 - Food label factors considered by respondents when buying food (answers to a multiple-choice question)



If considered separately from **Chart 34**, the food label data will show the **Chart 35**. While 68% of the respondents claimed tracing the best-before date of food products, only 45% of them gave a positive answer to the question of whether *they traced the food label data when buying food* (See **Chart 35**). Obviously, **a significant bulk of the respondents** (possibly the majority) **does not know the meaning of the “food label” phrase and are even more ignorant of the food label data.**

Chart 36 - Respondents’ tracing and trusting the food label data

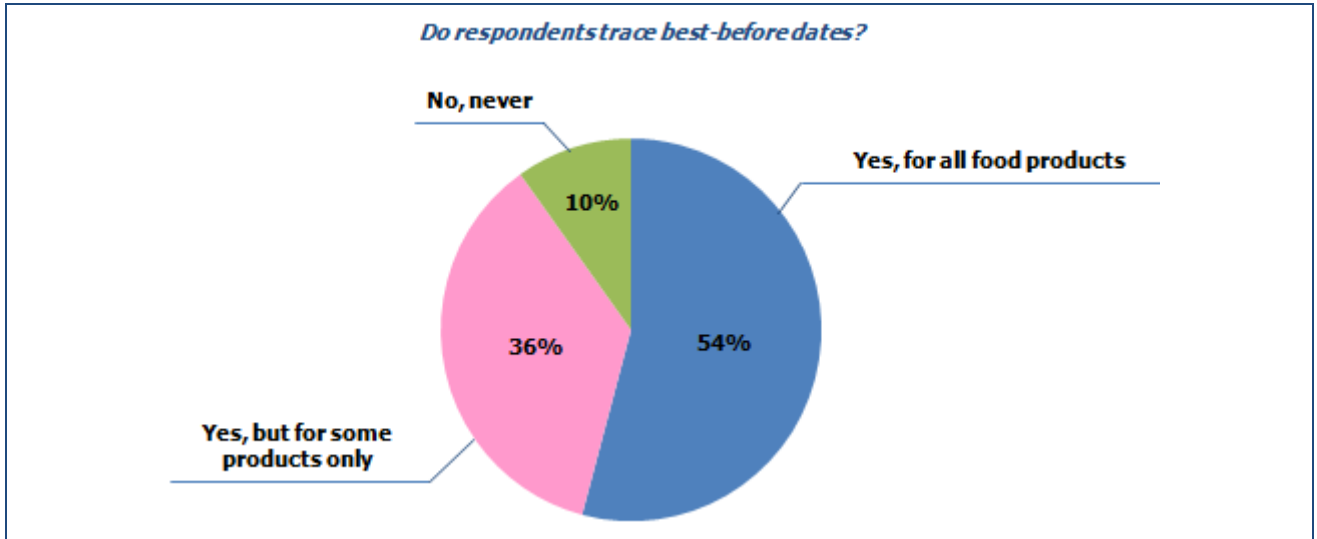


The level of confidence in the food label data appears to be low as well. Thus, 52% of the respondents distrust the food label data. Most of the reasons for the lack of confidence cover the best-before date of the food products. Generally, the best-before date appears to be the only food-label component about which the respondents have sufficient awareness, knowledge and experience to make well-grounded judgments.

4.4.2.1 Tracing best-before dates

The respondents' approaches to the food best-before dates are quite different. When buying any food product, most of them (54%) trace its best-before date, and do so for **every product** for which a best-before note is a must. Another bulk of the respondents (36%) traces the best-before dates of **some food products only**.

Chart 37 - Respondents tracing best-before dates



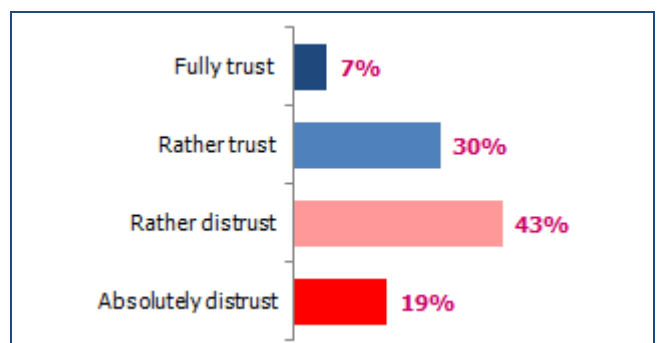
And the other 10% of the respondents **never trace** the best-before dates, at all. Such behavior can be accounted for by various reasons: some of them distrust the best-before date; some merely have no idea of its location on the food product package; the best-before date is printed in small print letters/numbers (44% of this group are persons aged 63 and older, many of whom have eyesight problems).

Unlike the respondents from marz towns and villages, those from Yerevan are more consistent in tracing the best-before date. Thus, the share of respondents from Yerevan not tracing such dates make up 6%, and that of respondents from marz town 11%, and villages 13%.

The lack of confidence in the best-before dates is typical not only of the respondents not concerned about such dates, but rather every respondent. The Survey findings reveal that **respondents concerned with the best-before dates do not necessarily trust them**.

The **Chart 38** covers the level of respondents' confidence in the best-before data on food labels. When compared against **Chart 37**, these data shows that **while the rate of respondents tracing best-before data when buying food totals 90%, only 37% trust such data**. Half of the in-depth interviewees expressed their distrust. To support their opinion, they recalled a few cases as they came across erased, relabeled or unclear best-before data. Some respondents claimed having relied on the best before data to later detect that the food was spoiled.

Chart 38 - Respondents' trust in best-before date on food labels



4.4.2.2 Food-buyers attitude towards expired food and products without best-before note

If coming across an expired food product on the shop shelves, most respondents are not inclined to take any active response actions. 85% of them said that in such a case, they would merely **refrain from buying it**

and put it back on the shop shelf. Only 41% of the respondents are ready to voice about it and complain to the trade venue managers, employees (39%) or competent food safety agencies (2%).

Chart 39 - Respondents' actions when coming across expired food products (answers to a multiple-choice question)



The data above suggest that **relying on food-buyers for effective food oversight and rapid response is pointless, at least presently.** The level of public perception of civic duty and consumer rights is still too low since the vast majority of food-buyers are still not ready to take more serious steps to protect their rights by voicing or reporting the problem to competent authorities.

As for the food products with no best-before notes on their labels, the respondents' steps depend on their awareness of the best-before date labeling requirements. Most food-buyers have no idea of the food products for which best-before note is a must and of the form of such labeling, etc. These are the reasons underlying the buyers' "lenient" attitude for food products with no best-before data; only 11% of the respondents are ready to complain on this account. Instead, 13% of the respondents consider it quite possible to ask the sellers about such data (as if the information provided by the latter might be true), and the other 11% would be reluctant to buy such food product.

Chart 40 - Respondents' actions when coming across a food product without best-before date (answers to a multiple-choice question)

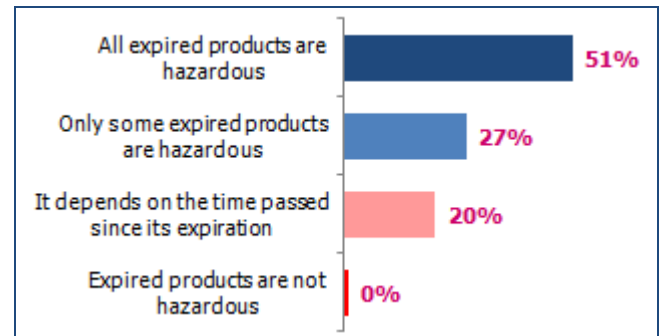


The data in the 2 charts above suggest that for food-buyers, the SSFS hotline fails to serve as an applicable tool to protect their consumer rights. Only 0.4% of the respondents expressed their readiness to call the hotline for any problems relates with the best-before data of a food product. This situation directly results from the low hotline awareness (as already mentioned above (See **Chart 8**, p. **23**), only 1%-of the respondents knew the hotline number).

4.4.2.3 Perception of expired food hazards

The respondents appeared to have quite different perceptions of the expired food hazards. Thus, half of them (51%) believe every food product to be hazardous upon expiry and therefore exclude any possibility of buying such food (see **Chart 41**). As for the other half of respondents (48%), they expressed their own unique approaches to this issue. Some of them (27%) think that not all foods became hazardous upon expiry. The other share of respondents (20%) considered the products expired for a short time only to be still safe and become hazardous only over longer time.

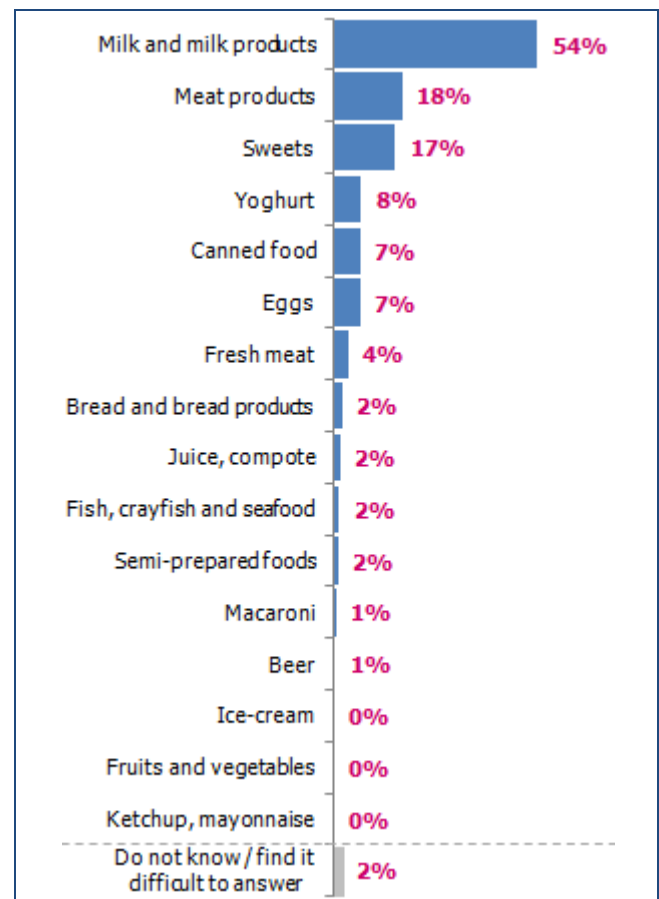
Chart 41 - Respondents' perception of expired food hazards



4.4.2.4 Most common expired products

The most common expired product list starts with products with **shortest expiration date** or **special storage requirements** (e.g. a special temperature conditions), such as milk and dairy products, meat products and sweets.

Chart 42 - Most common expired products, according to respondents (answers to a multiple-choice question)



According to the answers' statistics, the most problematic foodstuff in this terms are milk and dairy products (See **Chart 42**). This was stated by 54% of the respondents. It follows from such answers that this problem has different scopes in Yerevan, marz cities (towns) and villages. Thus, respondents from Yerevan and marz cities (towns) /58% and 59% respectively/ mentioned milk and milk products as the most common expired product. As for the respondents from villages, 46% of them held this opinion. Nevertheless, such rates **cannot** imply that **most expired milk and milk products is sold in urban areas**. Expired milk products might be less common in rural areas due to the fact that the rural respondents are not very concerned with the best-before dates as shown above.

The situation with meat products and sweets is quite the opposite. Such expired food products are more common in marz cities (towns) and villages.

Table 16 - Share of respondents often coming across expired meat products and sweets, as broken down by settlements

Food products	Settlement			Total
	Yerevan	Marz cities (towns)	Villages	
Meat products	15%	16%	25%	18%
Sweets	13%	17%	20%	17%

The quantitative survey data appear insufficient to provide a clear explanation for the figures in the table above. However, some facts identified throughout the qualitative survey (in-depth interviews) can shed some light on the situation. A group of in-depth interviewees from marz cities (towns) and villages mentioned that they could frequently find expired food in the stores where they bought their daily food products. They also noted that they took no steps in such cases not to damage their relations with the shopkeepers whom they always owe money for food products they had previously borrowed and not paid for yet. Such statements might indicate that the **marz cities (towns) and villages sell a larger volume of expired food since they have better opportunities to do so.**

4.5 FOOD STORING ISSUES

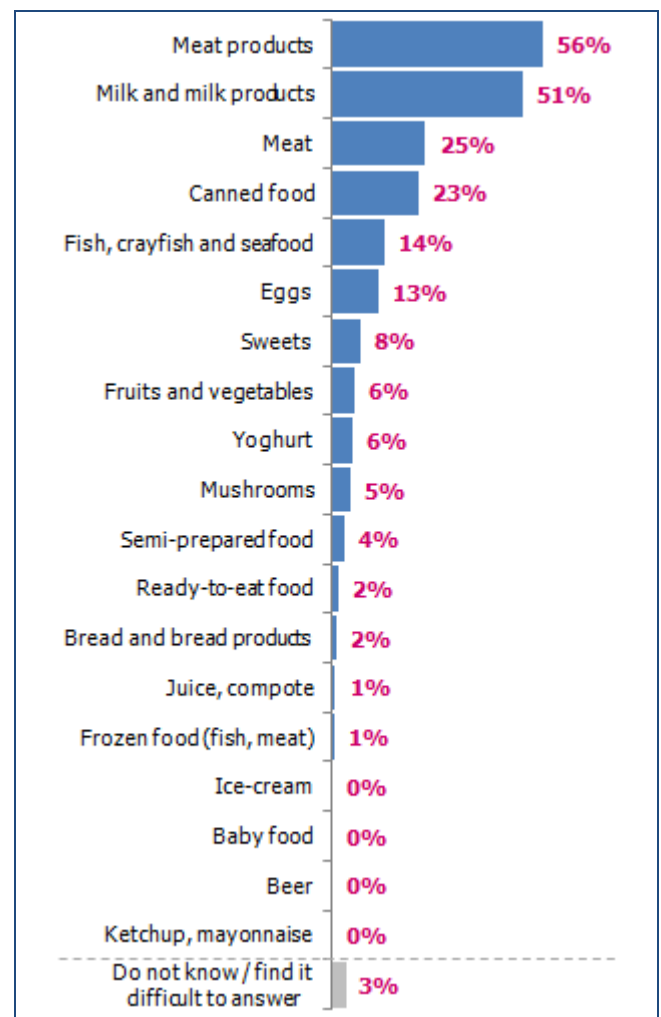
When asked about the most hazardous food products in terms of keeping/storing, the respondents mentioned some 2 dozens of food products or groups. This list starts with meat and milk/dairy product considered to be hazardous in terms of their storage by 56% and 51%, respectively (See **Chart 43**).

The respondents relate the hazards of the “**meat products**” with the **food additives of almost all types** they contain for color, smell, better favor and longer storage period. With so many additives, the meat products appear to be the most hazardous in terms of keeping. According to the respondents, excessive use of additives in the meat production results in the hazards and implications below: a) meat products spoil soon, even if kept at the necessary temperature; b) spoiled meat products cause severe diseases: poisoning, intestinal diseases, animal-transmissible infectious diseases. The main reason underlying the respondents’ extremely **negative attitude** consists in the use of poor-quality meat, or no meat at all as the main raw ingredient of sausages and small sausages.

As for the “**milk and dairy products**” group, respondents provided completely different reasons. Actually, the market offers milk products manufactured both by plants and relevant farming households. According to the respondents, milk products manufactured **by plants** might be hazardous for the reasons below: a) use of milk powder rather than fresh milk as a raw material; b) use of food additives (noting that only plants can apply such technologies), and c) fraud of storage life. As for the hazards of milk products manufactured by **farming households**, respondents mentioned the lack of manufacturing hygiene and sanitary conditions as the primary reason. According to the respondents, the food-related hazards they listed cause severe diseases, mostly poisoning and animal-transmissible infectious diseases. The latter appears to result especially from milk products manufactured by farming households.

The Survey data above reveals a noteworthy fact: milk products manufactured in the so-called non-plant conditions gain a major competitive advantage. Respondents consider the milk products manufactured by farming households to have a great advantage; **they are produced from fresh milk.** Hence, the freshness

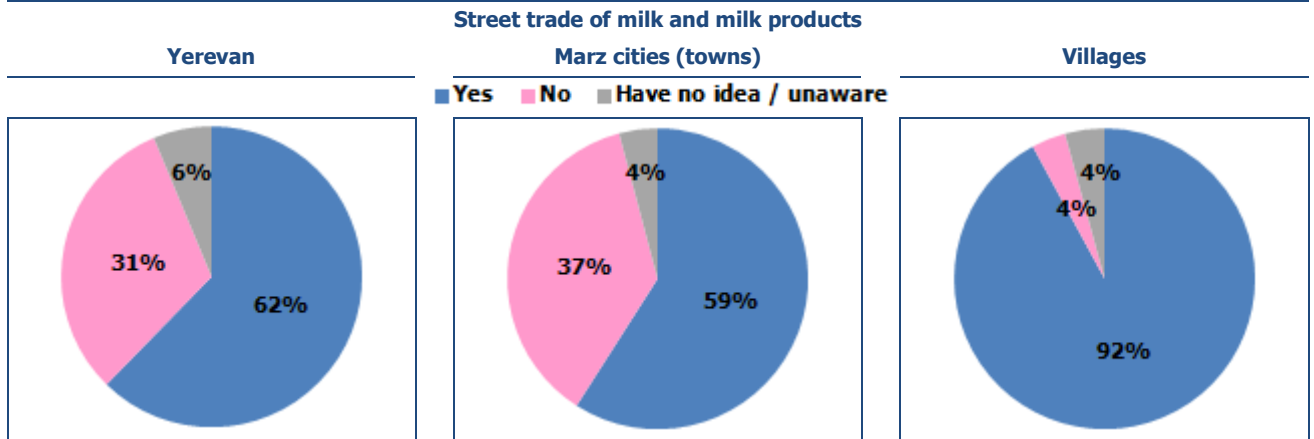
Chart 43 - Most hazardous food products in terms of keeping/storing (answers to a multiple-choice question)



appears to make the “virtue” of milk and milk products partially or completely covering the risks related to the milk products manufactured in non-plant settings.

Also, the Survey results show that the street trade of milk and milk products is quite widespread. This has been confirmed by most of the respondents from urban areas (Yerevan: 62%, marz cities (towns): 59%). And as for villages, this is considered to be the primary form of trading milk and milk products.

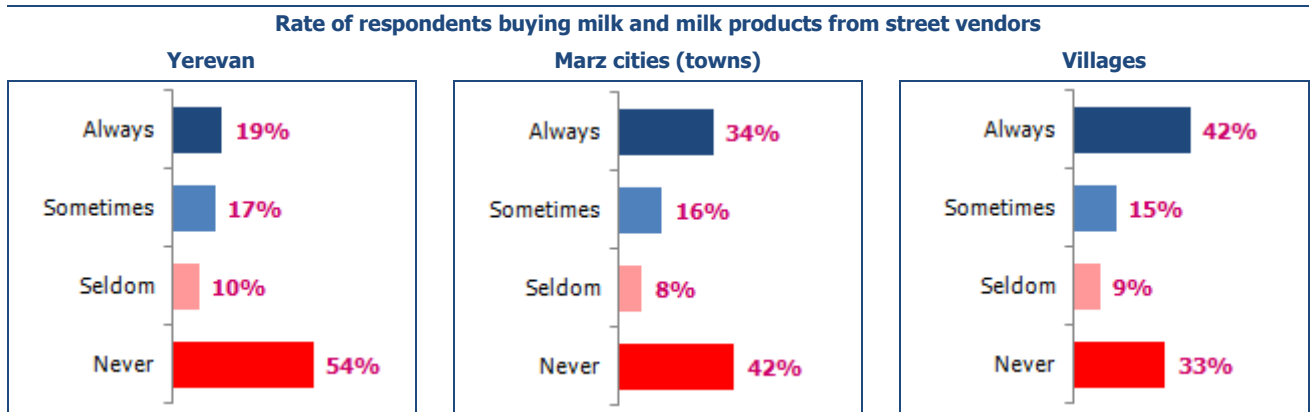
Chart 44 - Street trade of milk and dairy products, by settlement



14% of rural respondents admitted practicing street trade of milk and dairy products.

Despite the diverse attitudes to street trade (with pros and cons), more than half of the respondents admitted that either they, or other members of their household bought food products from street vendors. Thus regardless of the purchase frequency, the rate of the respondents from Yerevan, marz cities and towns and villages admitting doing so amounted to 46%, 58% and 67%, respectively.⁴

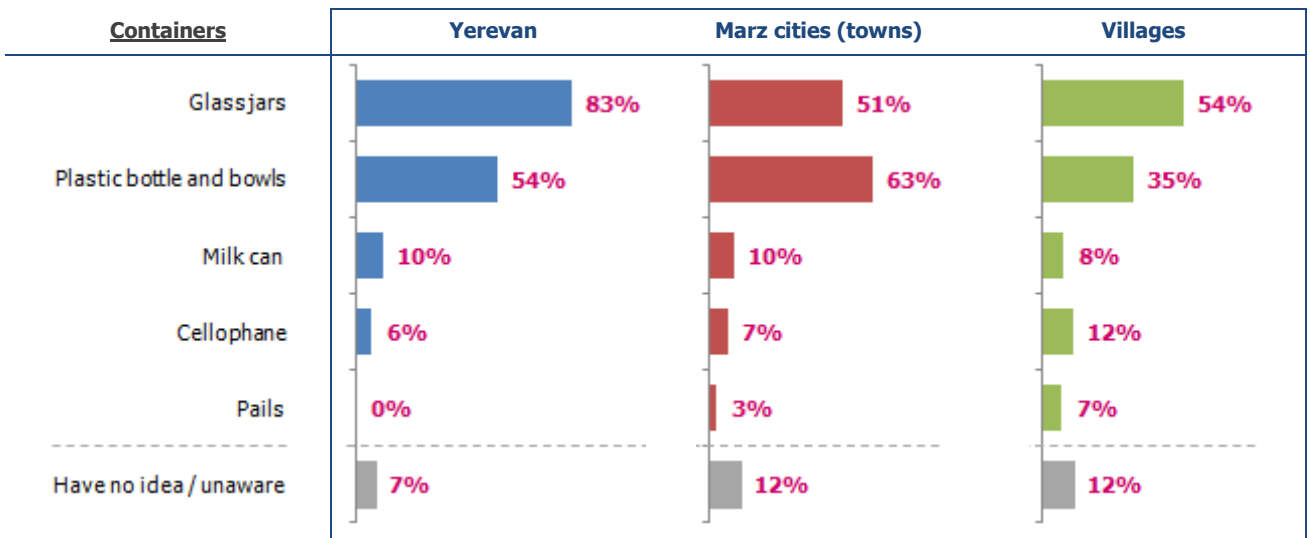
Chart 45 - Respondents buying milk and milk products from street vendors, by settlement



To store and carry milk and dairy products, the street vendors use various containers. The choice of such containers depends on how far vendors intend to carry the products, as well as customer’s requirements and vendors’ opportunities. According to most of the respondents (63%), milk and dairy products (mostly natural yogurt and sour cream) are sold in glass jars.

⁴ These data covers milk and dairy product buying practices by **both** the respondents and other members of their households. These data shall not be mixed up with those in **Chart 27** covering milk and dairy product bought by the respondents **only**

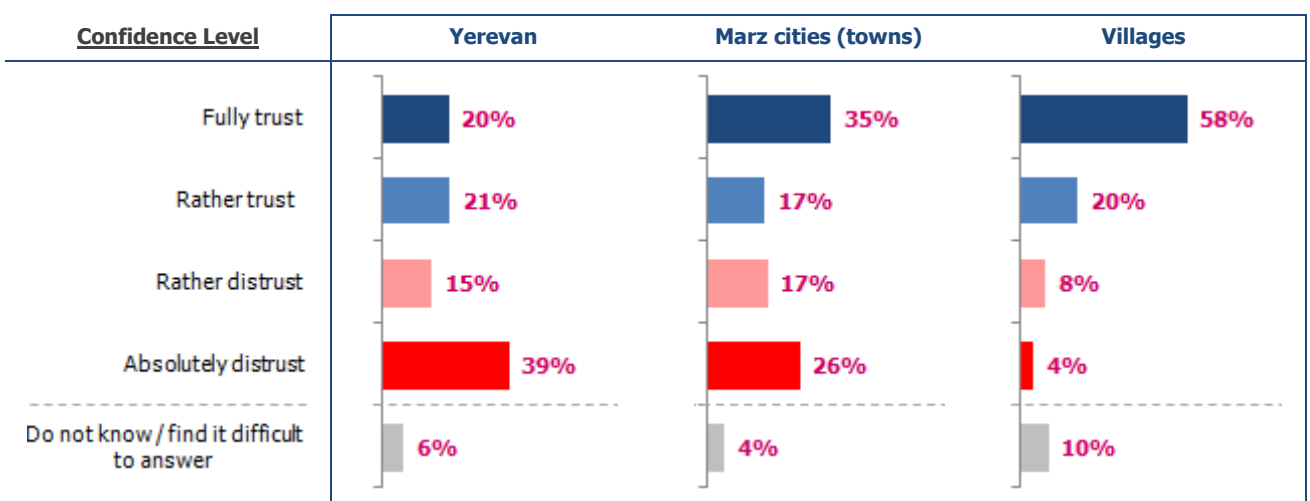
Chart 46 - Containers used by street vendors for sale of milk and dairy products (answers to a multiple-choice question), by settlement



Glass jars are considered more likely to be clean since they are transparent and clearly show the food inside. Also, they are convenient to carry from one place to another. The farming households regularly selling milk and dairy products to urban areas very often buy such glass jars (if unable to get back their containers from the buyers). This results in increased prime cost of dairy products. That is why glass jars are most often used for selling dairy products in Yerevan (See **Chart 46**), with relatively more solvent population, as compared with that of marzes. As for marz cities and towns, buyers impose less strict requirements for such containers; as a result, plastic bottles are used there more often than glass jars. The wider use of glass jars in villages can be accounted for by the fact that upon selling their products, the vendors can get their jars back.

Despite a series of reservations by the buyers about the milk and dairy products sold by street vendors, **most (60%) of them trust such milk cleanliness and safety.** It is this confidence that lays foundation for human customs and behavior towards the milk and milk products manufactured in non-plant settings. Yet, this confidence markedly differs from settlement to settlement. While the most skeptical are respondents from Yerevan, the rural respondents advocate for “homemade” milk and dairy products (See Chart below).

Chart 47 - Respondents trusting cleanliness and safety of milk and dairy products sold by street vendors, by settlement



4.6 ANIMAL FOOD SAFETY DOCUMENTS

The Armenian animal food value chain carries a number of food safety risks. For almost 2 decades, people have had to slaughter their domestic animals in their own yards due to the lack, non-operational state or insufficient number of slaughterhouses. Often, animals are slaughtered in small numbers and their meat can enter the market almost unnoticed. Also, the farmers often sell the meat of slaughtered animals on the spot to their acquaintances and relatives. This situation renders it quite difficult to think of how competent authorities may exercise a 100% control over the circulating meat safety.

According to the RA Governmental Decree on Establishing the Procedure for Veterinary-Sanitary Expert Examination of Food Products Resulting from Animal Slaughter, the meat of any slaughtered domestic animal shall be tested through veterinary-sanitary examination. If upon such examination the meat is found fit for consumption, a relevant document, namely, a **veterinary-sanitary expert opinion** shall be issued, authorizing its holder to supply and sell the meat to retail outlets. Generally, such a document might be considered to prove that the meat on sale is tested and safe. However, the butcher's shops mostly fail to show any such documents. Instead, one can see on the walls or shelves of such premises notes reading as follows: "Tested", "Veterinary-sanitary expert opinion available," "Veterinary certificate", etc.

The Armenian population shows a markedly passive attitude towards this crucial human health issue. In particular, 77% of the respondents stated that when buying meat **they never requested any veterinary-sanitary expert opinion**. The share of respondents who always requested this document made up 8% and of those who did so from time to time 4% (See **Chart 48**).

Chart 48 - Share of respondents requesting veterinary-sanitary expert opinion when buying meat

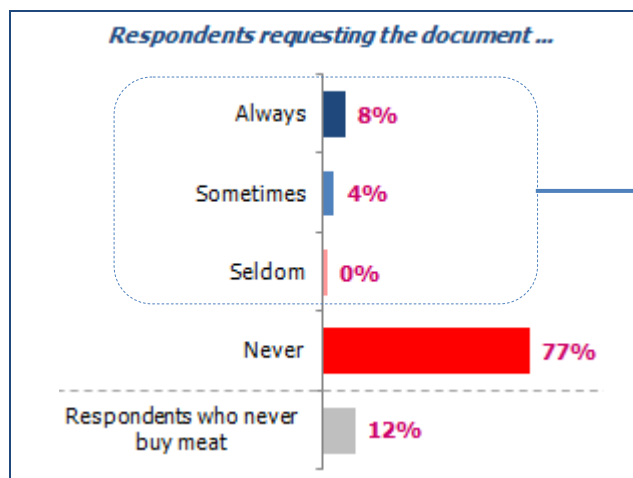
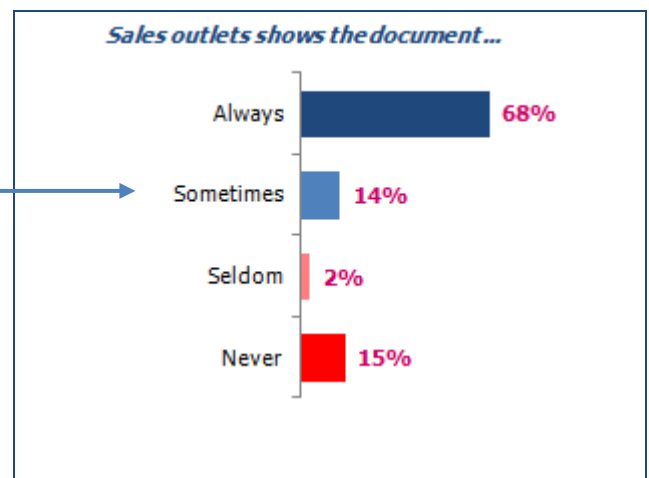


Chart 49 - Share of sales outlets providing the veterinary-sanitary expert opinion upon buyers' request



Only 68% of the meat sales outlets always produce the veterinary-sanitary expert opinion upon request (See **Chart 49**). The Consultant finds it quite concerning that 15% of the sales outlets never produce this document. Naturally, the 2 Charts above result in 2 essential questions:

- ▶ Why do not the respondents request the veterinary-sanitary expert opinion when buying meat? and
- ▶ What steps do the respondents take if the sales outlets refuse to produce the veterinary-sanitary expert opinion document?

As to the first question on *why respondents do not request the veterinary-sanitary expert opinion*, the Consultant collected answers from 77% of the respondents ("Never" answers in **Chart 48**). The Table below covers the statistics of such answers.

Table 17 - Respondents' comments on not requesting veterinary-sanitary expert opinion when buying meat (answers to a multiple-choice question), by settlement

Reasons for not requesting the Opinion Document	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
Trust the seller	28%	61%	75%	54%
Trust the sales outlet	39%	27%	19%	29%
Distrust data in such documents	20%	9%	6%	12%
Did not think of requesting this document	6%	7%	7%	7%
Think that any meat sales outlet shall hold such a document	6%	5%	5%	5%
Feel awkward about it	5%	5%	3%	4%
The document is posted on the scales or wall	4%	6%	1%	4%
Consider it pointless and unnecessary	2%	5%	1%	3%
Do not think that meat sales outlets might hold such a document	1%	2%	3%	2%
Have no idea of such a document	2%	1%	1%	1%
Unwilling to take the trouble to request such document	2%	0%	0%	1%
Unwilling to make any evil to the sales outlet or the seller	0%	1%	0%	0%
Do not know / find it difficult to answer	1%	1%	2%	1%

The main reason for the meat buyers not to request the veterinary-sanitary expert opinion is that they generally trust the sellers or the sales outlets. The trust for a seller is fostered over time as the meat-buyers shop at their sales outlets and are satisfied with it. This is the prevailing reason especially in marz cities (towns) and villages. The high level of rural respondents' confidence in meat sellers (75%) relies on the fact that most of the latter are their fellow villagers: neighbors, relatives and acquaintances engaged in animal-breeding. In Yerevan, this level proves to be lower. Thus, the respondents from Yerevan who buy meat for instance from the 'GUM' (Main Department Store) area meat trade pavilions, do so for their trust in the meat sellers. And as for the respondents mostly shopping in supermarkets, they merely trust the sales outlets in question. Such respondents share the opinion that large trading centers, such as supermarkets, exercise a very strict control of food products and no untested meat and meat products may be sold there. Yet, a considerable number (20%) of the respondents from Yerevan merely distrust the data in such veterinary-sanitary expert opinions. They believe that the meat seller merely buy such a document and use the same Opinion when selling various other batches of meat. The Consultant shall not comment on this opinion due to the absence of sufficient data.

As for the question on the steps *taken by the respondents if the sales outlets refused to introduce the veterinary-sanitary expert opinion*, the Consultant collected answers from 4% of the respondents (totaling 32% of the respondents, who provided the "Always", "Sometimes" and "Seldom" answers and made up 12% in **Chart 48**, and answered "Always", "Sometimes" and "Seldom" in **Chart 49**). The table below details the statistics of such answers.

Table 18 - Respondents' steps if sales outlets fail to produce veterinary-sanitary expert opinions upon request (answers to a multiple-choice question), by settlement

Respondents' steps	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
Refrain from buying this particular food product from this sales outlet	42%	63%	44%	49%
Never shop at this sales outlet again	38%	13%	11%	28%
What should I do? Reluctantly, I buy the product	8%	25%	44%	21%
Complain to the sales outlets managers or employees	8%	0%	0%	5%
Complain to competent food safety agencies	4%	0%	0%	3%

Whenever the sales outlets refuse to produce veterinary-sanitary expert opinions upon buyer’s request, the latter mostly refuse to buy the meat. The most dissatisfied respondents might stop shopping at the trade outlet (28%). Generally, respondents from Yerevan and marz cities (towns) are more determined and 80% and 76% of them respectively refuse to buy meat. Unlike them, the rural respondents are more adaptive, with 44% of them buying the meat, even without any veterinary-sanitary expert opinions produced. This group of respondents is generally quite happy with the meat sellers’ assurances that they sell only fresh and safe meat.

4.7 FOOD SAFETY AT FOOD SERVICE FACILITIES

Despite visiting food services facilities, a considerable part of the population has no idea about the food preparation conditions in such facilities. The respondents held a prevailing opinion that the food service facilities were under a strict control and could not breach any food safety rule. Yet, even such respondents admitted that such facilities had some food safety problems, with several poisoning records in a year.

To identify the current food safety issues at food service facilities, the interviewers discussed such issues with the respondents visiting such facilities. **The rate of the respondents who claimed visiting food service facilities totaled 64%.** This group comprises both frequent and rare visitors (See **Chart 50**). It is quite noteworthy that urban respondents appear to visit such facilities more often, as compared with rural ones. No doubt, this is accounted for by the incomparably larger number of food services in cities and towns.

Chart 50 - Respondents visiting food service facilities

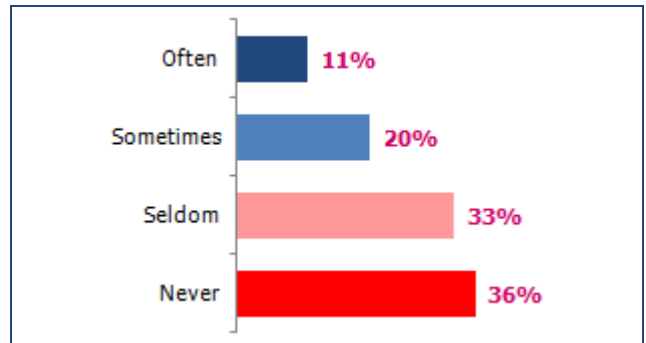
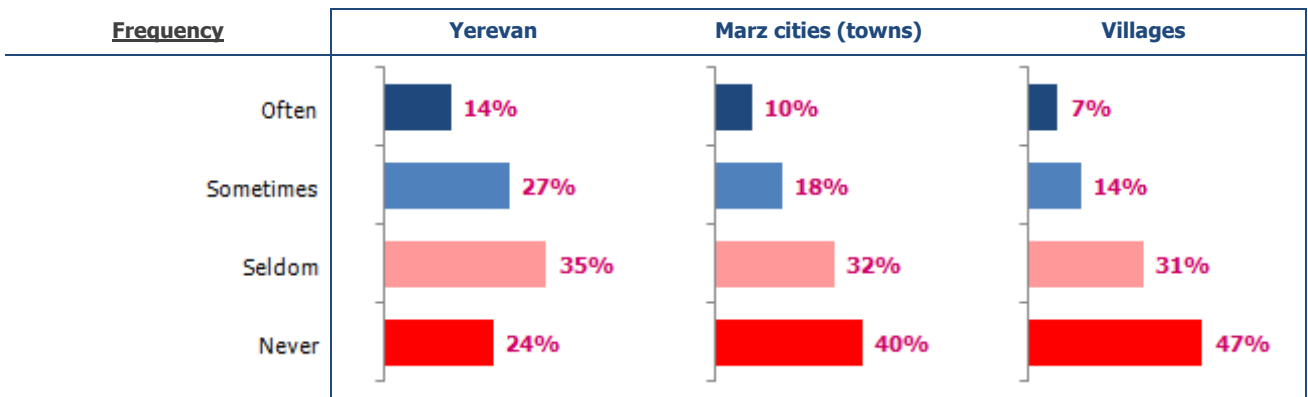


Chart 51 - Respondents visiting food service facilities, by settlements



Most of the respondents (53%) trusted the storage conditions and shelf life of the food served at the facilities above (See **Chart 52**). According to the Survey findings, the level of respondents' confidence in food service facilities and the rate of facility visitors are directly interrelated: **the higher the confidence level, the higher the visitor rate**. This can be further supported by the comparative analysis of answers provided by respondents from different settlements. Thus, the rate of the food service facility visitors in Yerevan totals 76%, and that of consumers trusting the conditions and shelf life of the food served there - 60%. As for the urban respondents, these 2 indicators make up 53% and 44%, respectively.

Chart 52 - Respondents' trusting in storage conditions and shelf life of food service facilities products

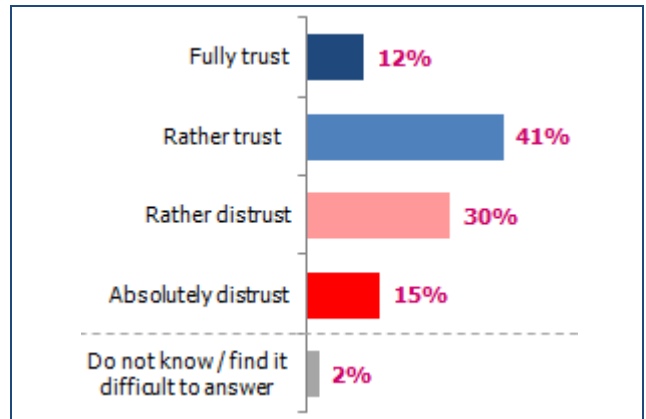
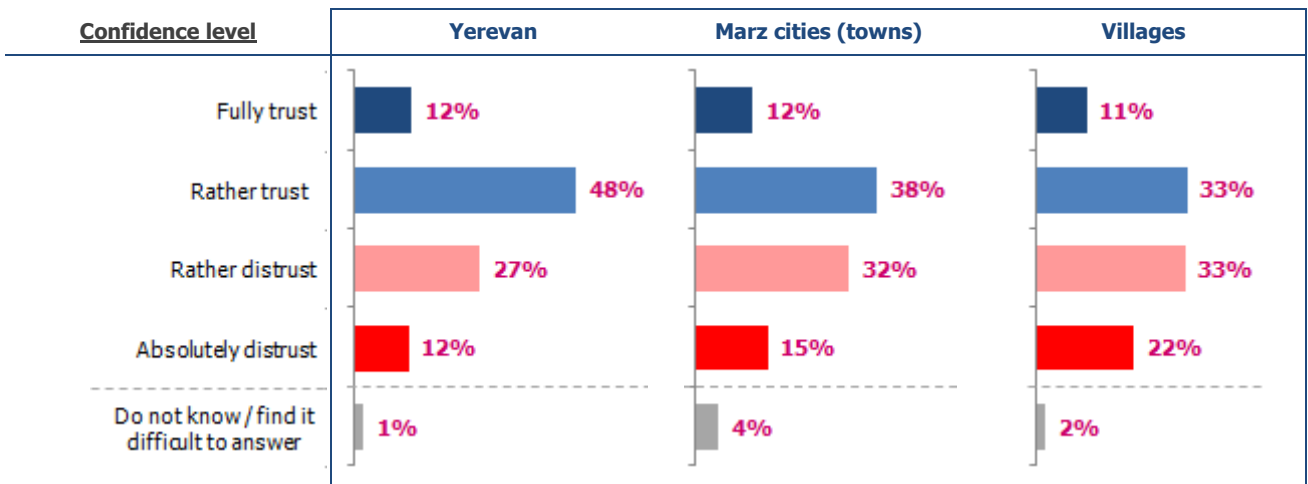


Chart 53 – Respondents' trust in storage conditions and shelf life of food service facilities' products, by settlements



Unlike the retail food sale outlets, in case of any food safety problems at food service facilities, the respondents are more determined in their actions. As compared to the 39% of the respondents ready to complain to the retail sale outlet manager on expired products, those ready to complain on poor-quality or spoiled food at the facilities above make up 63% (see **Table 19**).

Table 19 - Respondents' steps if served poor-quality or spoiled food at food service facilities (answers to a multiple-choice question), by settlement

Reasons for not requesting the Opinion Document	Settlements			Total
	Yerevan	Marz cities (towns)	Villages	
Complain to the managers or employees of the facilities	72%	57%	55%	63%
Return the food and pay nothing for it	38%	43%	46%	42%
Never visit this facilities again	28%	25%	24%	26%
Order to replace the food	17%	18%	14%	16%
Return the food and pay for it	7%	6%	4%	6%
Complain to competent food safety authorities	2%	2%	2%	2%
Would not take such food	0%	4%	3%	2%
Call the hotline	1%	1%	0%	1%
Dissuade everybody from visiting such facilities	1%	1%	1%	1%
Do not know/find it difficult to answer	1%	1%	3%	2%



Again, when coming across any food safety breach at food service facilities, respondents from Yerevan are more determined, as compared with those from marzes. As for the rural respondents, they are most adaptive, with 12% of them mentioning that if served poor-quality food, they would just leave the facilities and never return there again.

5 SUMMARY

5.1 FINDINGS

The Social Survey on Food Safety Public Awareness revealed substantial gaps in the food safety public awareness and behavior. All this might become a handicap to the SSFS for its further actions to improve or enhance food safety.

Based on the wide scope of issues discussed with food-buyers and their answers, their food safety awareness and confidence levels can be generally graded as follows:

- a) food safety **awareness level: average**;
- b) food safety **confidence level: low**; and
- c) food safety behavior: **passive and adaptive**, with low legal awareness of rights protection.

The respondents' food safety **awareness level** is graded as average since they showed too low awareness of some key issues and meanwhile quite a high awareness of some other key issues. This assessment is also based on the facts below:

1. In its capacity of a state agency responsible for food safety, veterinary and phytosanitary oversight, the SSFS appears to be quite unfamiliar with the public, particularly food-buyers. On the one hand, the state agency with a public recognition rate of 10%, with some reservation, cannot serve as a platform for the food-buyers to seek their rights protection with it. On the other hand, the SSFS thus appears deprived of any opportunities to receive up-to-date data on the shortcomings and violations on issues under its jurisdiction.
2. To foster the state-society relationship, the governmental agencies dealing with the public in their daily activities, have established hotlines in recent years, so that people might quickly receive up-to-date information on any of their concerns and voice before competent state agencies any deficiencies and violations detected in any sector. The education and pension systems hotlines can be considered as successful examples. The SSFS also runs a hotline; however, the food-buyers' awareness of such hotline is very low, namely 1%. It is mostly at the sales outlets that most food-buyers come across food safety issues and have very little time to find answers to their questions. The hotline appears to be the best format for food buyers to bring their own issues before the SSFS quite quickly and rapidly. Nevertheless, this communication tool proves ineffective.
3. The most crucial survey finding suggests that almost every food-buyer perceived food as carrying numerous health risks and any food safety breach as a potential cause for severe diseases. This means that the public at large perceives the challenge and is therefore ready to show prudent and preventive behavior. But what should it beware of and how? These are the questions that the public needs and wishes to learn more about.
4. As for food labeling, food-buyers show low awareness and vague perception. The vast majority of surveyed buyers considers it to begin and end with the product best-before date indication and fails to look through the product ingredients or nutritional value label. The reasons underlying such behavior are quite diverse. The behavior of persons complaining of the food label small printed letters or numbers can be quite clear, though not considered problematic. Whereas the inability to comprehend or analyze the food ingredients or nutritional and energetic values is indicative of low awareness level.

The food safety **confidence** grade relies on the facts below:

5. The identified distrust primarily results from the general public distrust of government institutions. For instance, 50% of the respondents aware of the hotline are not ready to use it if they come across a food safety breach, since they do not believe that the competent state agency can ever impose any sanctions on the well-known supermarkets or their managers. The message behind such answers is crystal clear. However, given that 99% of such respondents have never called the SSFS hotline and therefore have no objective grounds for such statement, it becomes quite clear that people merely distrust it as a state agency.
6. Yet, there are some good reasons for lack of confidence in the food safety sector. Based on their own experience as well as some food safety breach data communicated by the mass media or their own acquaintances, most food-buyers distrust the food labeling and in particular the best before data.

Consumers' **behavior** is also influenced by their levels of food-safety awareness and confidence.

7. While food trade is mostly concentrated in city stores and supermarkets, the street trade by farmer sellers or resellers is still quite widespread. Most of the respondents prefer buying food from street vendors since they consider it convenient, inexpensive and closer to their place; as a result, they can save some time. Another primary reason behind such preference is that the street trade products are considered fresher. It is this assumption that makes most food-buyers purchase milk and milk products from street vendors, even though they range among the most problematic food safety products due to their manufacturing and transportation conditions.
8. When facing any food safety violation, the food-buyers might be considered to show adaptive behavior. Hence, if they ever detect an expired food product, most of them would merely put it back on the shop shelf. Only less than the half of the responders expressed their readiness to voice the problem and complain. This also holds true for situations with sales outlet producing no veterinary-sanitary expert opinion or with a food service facilities serving poor-quality or spoiled food. Such behavior relies on a series of social and cultural attributes. People refrain from complaining to any agency since they are unwilling to make evil to others, consider it a shame or feel awkward to do so. This issue might be partially resolved by publicizing the hotline.

Yet, the Survey revealed a key feature deserving special attention. The population of Yerevan, marz cities (towns) and villages showed significant differences in food safety awareness. Thus, food-buyers from Yerevan showed higher awareness and legal awareness than those from marzes cities (towns) who in their turn showed higher rates as compared to the rural respondents. This directly affects the buyers' behavior. The food buyers from Yerevan are more meticulous and responsive to any breaches, consistent and ready to protect their rights.

The food-buyers with such an average profile are unable to make good allies and assistants to the competent food safety agencies. Obviously, the food safety public awareness campaign shall make the cornerstone of the SSFS Communication Strategy, with coherent awareness policies pursued. Otherwise, the SSFS will have to face up to the food safety issues all alone and the public health risks will persist.

5.2 RECOMMENDATIONS

The summarized Survey findings resulted in the 2 public awareness directions below: a) actions targeting increased SSFS recognition; and b) public awareness campaigns on food safety key thematic issues.

1. **Increased SSFS recognition rate:** actually, increasing the SSFS recognition rate is a must since the public at large needs to learn more about the competent agency which they can consult for

food-safety issues. This action should be carried out despite the decreased public confidence in the state authorities.

Television is the main (if not the only) channel to provide the public with information about the SSFS. This is supported by the 2 telling indicators below: it is through television that 84% of the respondents had learned about the SSFS hotline and 59% of the respondents - about the food-caused diseases. Typically, the secondary source of information covered the group of acquaintances, friends and relatives for whom television was also the primary information source.

The SSFS can prepare and broadcast several types of reports: a) advertising about its functions; b) interviews with the heads of the SSFS and its individual units, c) account reports on inspections and field visits. The regular use of such communication tools will over time result in significantly increased SSFS awareness.

2. **Publicized hotline:** by publicizing its hotline, the SSFS will resolve 2 issues at a time: a) ensure raised SSFS public awareness; and b) provide the public with a tool to quickly and efficiently respond to any food safety violations. To increase hotline public awareness, the steps below can be taken: a) run social advertising on TV; b) ensure that all the food trade outlets are bound to post (place) the hotline number and do so in a short time.
3. Public awareness campaign on key thematic food safety issues should aim to fill the existing gaps by providing the public with necessary knowledge on the issues where it still needs further information or shows incorrect or unsafe behavior by virtue of habit. The list below covers the thematic issues calling for increased awareness:
 - ▶ **Food additives:** types, industrial application objectives, consumer health risks, food additive notes in food label (labeling);
 - ▶ **E-coding:** types, industrial application objectives, consumer health risks, meaning of E-coding notes in food labels (labeling); those permitted in Armenia;
 - ▶ **Food storage conditions and cross-contamination:** most common storage conditions of different food products; health risks caused by breached storage conditions;
 - ▶ **Street trade:** types of street trade (itinerant traders, unauthorized trade venues), consumer health risks caused by products bought from street vendors; hygiene and sanitary conditions for production and transportation, difficulties (or impossibility) of their oversight;
 - ▶ **Homemade food products:** risks caused by food homemade production, most common types of homemade food products (canned food; bread) and health risks caused by their manufacturing technology.

To ensure clarification of all these thematic issues and public awareness campaign, the SSFS can use both the extensive information channels (e.g. TV social advertising) and local initiatives (e.g. disseminate informational brochures and leaflets in supermarkets and stores, hang posters and banners in crowded venues, e. g. bus stops, village centers). Another way to disseminate information is to briefly cover the topics above in various health and culinary broadcasts on various TV channels.

6 APPENDICES

6.1 APPENDIX 1

Minutes on public hearings of the report of Social survey on food safety public awareness.

6.2 APPENDIX 2

The list of participants of public hearings of the report of Social survey on food safety public awareness.

6.3 APPENDIX 3

Tables on results of Social survey on food safety public awareness by residence of respondents (Yerevan, regional towns, and villages)