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DELIVERABLE N° 5.2 STUDY REPORT ON CONSUMER MOTIVATIONS AND BEHAVIOURS FOR FRUITS AND FRUIT PRODUCTS IN THE BALKANS

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1. SUMMARY

Introduction and aim

It is unclear whether fruit consumption in Western Balkan countries (WBC) meets recommended levels from a health perspective. A better understanding consumers' perception of health and motives and barriers of fruit is necessary to get insight in the fruit consumption. The aim of WP 5 is therefore to explore, analyze and understand perceptions, motivations and barriers of consumers in WBC towards fruit and fruit products and their nutritional balance.

Fruit consumption in general

The consumption of fruit seems comparable for all WBC. Fresh fruit consumption is rather high, 82% of the respondents consume a portion of fruit at least once a day. Predominantly fruit is consumed at home but at various times of the day. The most popular fruits are apples, bananas, peaches, oranges, and (seasonable) local fruits. Fruit juices and jam are the processed fruit products which are most often consumed. Participants prefer home-grown, local, fresh and season fruit over exotic fruit and fruit products. The least often consumed is dried fruit, respondents eat dried fruits only when fresh fruit is less available or when they have the habit.

Out of home consumption

For a large group of participants there is no habit to eat fruit out of home. A small group does consume fruit out of home and they always mentions that health is their main motivation and some fruits are more convenient than other. Eating fruit out of home is not a habit and several barriers are mentioned: hygiene (being able to wash the fruit or the hands), how to deal with the waste. Others even mention it is embarrassing and generally not accepted to eat fruit outside home in public places.

Perception of fruit as part of a balanced diet

There was a strong agreement between respondents that health is a very important and valuable thing. Its importance however is not considered daily by most people due to daily duties and time constraints. Sometimes, health problems are the occasion that people start thinking about health. A healthy lifestyle is defined by the following topics: regular living and lifestyle, food and diet, sports and physical activity, nature and clean environment, no unhealthy habits, hygiene while preparing food, and lack of pesticides. For health, balance is an important concept which is mentioned in relation to food, physical activity, and other aspects of life. A balanced diet is characterized by variety/diversity, structure/regularity, boiled and cooked meals, moderate/small portions, fresh food (not-freeze, no preservatives, frequent meals, and eating according to recommendations (food pyramid). At product level respondents mention fruits, vegetables, less meat, and avoid fast foods. Finally, at nutrient level adequate amount of calories, proteins, carbohydrates, fats, vitamins, and minerals are mentioned.

In the perception of WBC consumers fruit suits in a well-balanced diet. Consumers think of fruit as being preventive for a wide variety of diseases. In addition, fruit is believed to have an impact on vitality/energy, good mood, and appearance (beauty). Overall, knowledge on the details of a balanced diet and recommended amounts of fruit intake differ by country and by educational level, level of information, and personal experience. However, the vast majority of the respondents agree that fruit is related to health and therefore an important part of a healthy diet (and especially for children). In addition, most respondents can spontaneously name aspects of a healthy diet and fruit is often one of those. In contrast to this positive finding, the majority of the respondents think their own diet is not (optimally) balanced and also their fruit consumption could be improved.

Image of a fruit eater

In line with the results on the relationship between fruit and health, the most important characteristic that distinguishes fruit eaters and non-fruit eaters is health. For fruit eaters health is considered to play a central role while for non-fruit eaters enjoyment now is more important than health in future. Generally spoken associations with the non-fruit eater are expressed in terms with a more negative character. In addition, for fruit eaters health and appearance are important and they apply this to the food they choose, the behaviour with regard to sports.

Motives and barriers for food consumption in general and for fruit consumption

For food choice in general, the issue of safety with regard to containing harmful substances such as pesticides is the most important for food choice of WBC consumers. Besides that also taste and health are very important. For fruit specifically, taste and health and disease prevention are the most important motivations, appearance and the tradition are the least important motivations. There was tentative evidence that the younger respondents find taste more important than the older ones. Produced fruits are eaten for reasons of taste, health, availability, and when fresh fruits are not available.

As mentioned before almost all respondents believe that fruit is related to health and part of a healthy lifestyle. Similarly, the image of fruit eater is someone with a healthy lifestyle, good looking and active and having the motto "a healthy mind in a healthy body". The non fruit eater is someone who is not interested in health at all, watches a lot of television and their motto is "to live from day to day". Generally spoken, health seems to be an important motivation for fruit consumption.

Convenience with regard to preparation or buying isn't very important to WBC consumers. At the same time the respondents said they consume fruit that are easy to wash and peel. Another issue which can be seen as an aspect of convenience is availability, is next to price an important barrier to consume fruit.

Purchase of fruit and home-grown

In the entire region the green market is the most common source for fresh fruit: 70% of the respondents reported they buy their fruit, while 49% bought fruit in supermarkets, and 39% directly at the farm (respondents could choose more than one outlet). Preference for green market and farms is even higher than actual purchase.

At least half of the WBC consumers says that one third of the fruit they consume is home grown or from orchards from family or friends. For one fourth it is even one fourth of their consumption. This is a specific characteristic of fruit consumption in the WBC, which might have influence on their consumption, which is underestimated due to not taking this amount of home-grown fruit into consideration. This consumption of home grown fruit might also have influence on how consumers perceive fruit, due to seasonality, harvesting yourself, preparing your own preservatives, getting the fruit from people you know. In contrast to EU studies in WBC appearance of fruit is not at all important to WBC consumers. In addition they prefer to buy the fruit from someone they know and who they trust, therefore supermarkets are less popular to buy fruit. The issue of safety is quite important for consumers especially with regard to pesticides.

In the perception of the participants the climate of WBC is very suitable for fruit production. Although there might be differences between the countries, generally all participants express that they prefer national fruit.

Concluding remarks

Generally spoken fruit consumption and perception is rather comparable for the different WBC. Fruit perfectly suits in a healthy diet, but still it is not clear how many consumers reach the recommended levels.

Compared to EU there are some interesting differences which need attention in future research; i.e. the actual consumption of fruit and fruit products and the impact of the large amount of home grown fruit. With regard to the health perception of fruit especially the issue of safety and trust of fruit is interesting related to the place where people prefer and actually buy their fruit. Generally the motives and barriers are in line with EU but there are some

exceptions with regard to convenience which seems not that important in WBC although availability is a barrier. A food consumption survey as well as further studies of consumers perceptions of fruit are needed to better understand the consumer in order to create innovations for fruit and it's sector as well as tailored interventions.

2. INTRODUCTION

The consumption of fruit is recommended as part of a healthy diet. In Western Balkan Countries (WBC) fruit consumption strongly decreased since the 1990's. About the actual consumption of fruit in WBC experts have two opinions majority of experts thinks that consumption does not reach recommended levels while several think that fruit is included more in everyday life dietary habits (Delic and Zimmermann 2010). Actual statistics are hardly there. Nevertheless new trends can be observed, for example exotic fruits, different varieties as well as fruit juices and nectars with nutrition claims are more often present on the market which provide the consumer with a wider choice. To further increase fruit consumption it is necessary to better understand the consumption and perception of fruit. Therefore the aim of WP 5 is to explore, analyze and understand perceptions, motivations and barriers of consumers in Western Balkan countries (WBC) towards fruit and fruit products and their position in a well balanced diet.

The main objectives of this part of WP5 of Focus Balkans are:

- To determine fruit consumption in the different countries and identify the position of fruit in a well-balanced diet from Balkan consumers perspective;
- To explore, analyze and understand motivations related to the purchase and consumption of fruit and processed fruit products in different situation and consumption moments;
- To identify role of and barriers to fruit consumption and consumer characteristics in relation to nutrition;
- And at last, to give input for the quantitative survey foreseen in WP9.

In this WP 5 the focus is on consumption of fruit in everyday life, which means that fresh fruit as well as dried and processed fruit are studied. For processing the definition is used usually applied for food, e.g. the treatment of food substances in such a manner as to change its properties with view to preserving it, improving its quality or make it functionally more useful. Perishable prepared fruit would be rather considered as fresh fruit and dried fruit (grape, apricots, figs, plums) would be generally considered as a category by itself. As mentioned we also include processed fruit, such as juice. Also frozen fruit which are used at home to prepare for example domestic pastry were included. However, processed foods that contain low contents of fruits such as fruit yoghurts, biscuits with fruit or fruit ice-creams, are not considered in this study. Also non-eatable fruit, nuts and pastes are not considered as fruit.

3. METHOD

To explore attitudes of consumption behaviour and the position and perception of fruit and fruit products in a well balanced diet, in depth interviews and focus group discussion were applied in each participating WBC i.e. Bosnia-Herzegovina, Croatia, FYRo Macedonia, Montenegro, Serbia, and Slovenia. The application of those two qualitative methods suits in the learning by doing approach of the Focus Balkans project. A close cooperation and supervision was created between the 6 participating WBCs, the market research agency, and the other partners from Western Europe including the work package leader. This implied that guidelines and instructions for moderation were prepared by the Work Package leader in cooperation with WP 4 Methodology and the market research agency and after that discussed in detail within the research team. Moreover trainings were organized about interviewing and facilitation of focus group discussions. Thus, all partners were active in this learning by doing approach.

3.1. IN DEPTH INTERVIEWS

3.1.1. Background

In depth interviews are applied to get a deeper understanding of behaviour, attitudes, and motives. They are facilitated by a trained person and last approximately 45 minutes to 1 hour. It is possible to collect a large amount of information in a relatively short period of time. In a face to face setting social pressure on respondents will be limited since they do not have to conform themselves to group dynamics. In the interviews especially attention will be given to explore motivations, obstacles and barriers of different consumption moments of fruit and fruit products in each of the 6 Balkan countries. At least 30 semi structured in-depth interviews were organized in each WBC in autumn 2009; 183 interviews in total.

3.1.2. Application

The in-depth interviews were structured in general terms starting with the recruitment, and introduction part, discussion about several topics, a number of closed questions about the topic and the evaluation. The following topics were discussed: perceptions of health and well-balanced lifestyle, consumption of fruit in general, motivations and barriers for fruit consumption, perceptions of a fruit and non fruit eater, purchase of fruit and fruit products, position of home-grown fruit, knowledge about fruit. A copy of the guide in English can be found in annex 1.

Each WBC took care of the data gathering in their country. All interviews were transcribed in local language. The analyses and reporting of the results were structured according to a developed format. Each WBC translated their national reports. Based on the 6 reports the results are presented in this deliverable.

3.1.3. Sample of respondents

The selection of respondents was based on a screening questionnaire in which age, sex, education, region, amount of household members, employment and income were asked (see the recruitment questionnaire annex1).

Deliverable 5.2 Study report on consumer motivations and behaviours for fruits and fruit products in the Balkans

The respondents were unknown to the interviewers, in order not to increase the likelihood of obtaining unbiased responses. The respondents also had no previous knowledge of the specific issue of study.

In total 183 people were interviewed: 33 persons in Bosnia Herzegovina and 30 in each of the other 5 countries, see table 1 for the description of the total sample. The sample contains a rather high percentage of students and therefore education level is rather high. For age, sex, and region the sample is rather balanced.

Table 1 Sample of respondents for in depth interviews

Different categories	N	183	percentage
Gender	Female	119	65%
	Male	64	35%
Age	18- 30	67	37%
	31-50	72	39%
	Above 50	44	24%
Type of settlement	Urban	101	55%
	Rural	82	45%
Household size	Up to 3	52	28%
	4	66	36%
	5+	62	34%
	Missing	2	1%
Education	Low (elementary school)	8	4%
	Medium (high school)	103	56%
	Higher (college)	167	9%
	Higher (university)	48	26%
	Missing	7	4%
Employment	Employed	92	50%
	Retired	20	11%
	Student	37	20%
	Unemployed	27	15%
	Housewife	5	3%
	Missing	2	1%
Income	Less than 170	9	5%
	171-400	37	20%
	401-700	57	31%
	More than 701	53	29%
	No answer	27	15%

3.2. FOCUS GROUP DISCUSSIONS

3.2.1. Background

Focus groups are interactive loosely structured group discussions lead by a moderator, who encourages the free flow of ideas in which group dynamics are used to develop new streams of thought and covering an issue thoroughly. Usually six to ten people take part in the discussion and the discussion lasts for one to two hours. Focus group discussions are used during the explorative stage within the research process, for which they are especially suited for the generation of hypotheses. In this study focus groups were applied to deepen some issues which rose during the in-depth interviews. The discussion is normally recorded on video,

DVD or recorder and may be streamed via a closed streaming service for remote viewing of the proceedings.

3.2.2.Application

During the focus group the following topics were thoroughly discussed: health perception in general and related to fruit, perception of availability of fruit out of home, home grown, supermarket, perception of national fruit and fruit from other countries, well balanced diet and knowledge. Please find the guide in annex 2.

Each WBC took care of the data gathering in their country for urban as well as rural participants in two different focus groups. A transcript is made in local language of each group discussion. Based on this the results are presented in a developed format, and translated in English. Results from these national reports and the general conclusions are described in this deliverable.

3.2.3.Sample

For each WBC there was a group discussion with urban and one with rural people, balanced in age, sex and education level.

4. RESULTS IN DEPTH INTERVIEWS

This chapter presents the results of 183 interviews, with both open as well as closed answering possibilities. The results of the closed questions will be presented by means of tables and presenting percentages. The reader should keep in mind that when interpreting the results the approach was exploratory and qualitative.

4.1. Fruit consumption

4.1.1. Consumption of fruit

Common features intake

On average 82% of the respondents indicated to consume a portion of fruit at least once a day (see Figure 1). In addition, 59% reported daily consumption of fruit juices. Dried fruits were consumed at least weekly by 34% and roughly half (51%) of the respondents consumed jam at least weekly. Respondents often indicated they prefer fresh fruits. Dried or processed foods (e.g. compotes) are consumed when fresh fruits are less available or affordable. Similarly, people prefer home grown and local fruits and home-made processed fruit products, other (exotic) fruits or fruit products are only consumed out of the season. In Montenegro the consumption of fruit is significantly higher compared to other WBC (see Table 2). No other differences were found by age, gender, or urban/rural settlement.

Figure 1 How much and how often do you eat fresh fruit in general?

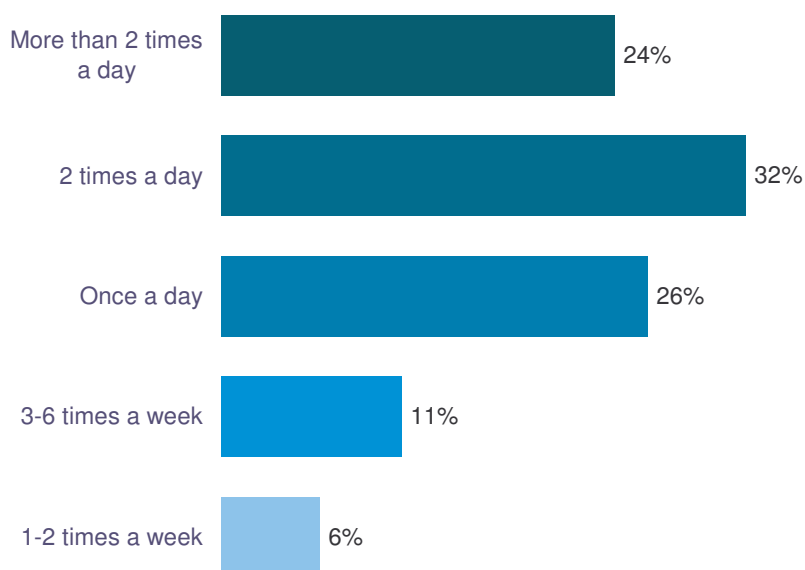


Table 2 How much and how often do you eat fresh fruit in general? (per country)

	Total	Country						Age			Type of settlement			
		Croatia	Macedonia	and Herzegovina	Serbia	Montenegro	Slovenia	Male	Female	18-30	31-50	50+	Urban	Rural
N	183	30	30	33	30	30	30	64	119	67	72	44	101	82
Sig				0.90				0.33		0.99			0.09	
More than 2 times a day	24	20	27	21	13	43*	20	16	29	21	25	27	26	22
2 times a day	32	33	27	30	50	33	20	31	33	34	32	30	28	38
Once a day	26	27	33	36	23	10	23	28	24	25	22	32	33	17
3-6 times a week	11	07	13	06	03	10	27	16	08	12	14	05	07	16
1-2 times a week	06	13		03	10		10	09	04	07	06	05	05	07
Missing	01			03		03			02		01	02	02	

* different from average at $p < .05$

There was not a clear pattern of consumption of fruits at one particular time of the day, fruits were eaten during the day, both as snack and with meals. Predominantly, fresh fruit is consumed at home. Similarly, jam and other processed fruit are mostly consumed at home but not exclusively, they are also eaten at work/school or on the move.

4.1.2. Consumption: types of fruit and fruit products

Comparison of products within categories revealed the following results. When respondents could choose from 13 types of fruits apple and banana are most often pointed out as the most consumed kinds of fresh fruit. Indeed consumption report was highest for apples, most people consumed them at least daily (67%), while at least daily consumption of peaches (39%), oranges (38%) en bananas (34%) was similar (see Table 3). From this study it is not clear whether there is a difference between most often consumed fruit and most preferred fruit because this difference was not always clear to the participants.

Fruit juice was also consumed frequently: 59% reported at least daily consumption. Jam is the most consumed kind of processed fruit.

Apples and to a lesser degree bananas (and mandarin) are eaten in many different situations and settings (home, work, while on the move) while other fruits are more often eaten at home.

Table 3 How often do you consume ...?

	N	More than 2 times a day	2 times a day	Once a day	3-6 times a week	1-2 times a week	Less than once a week	Less than one time a month	Never	Missing
Whole apple	183	13	21	33	14	10		4	3	2
Whole peach	183	7	11	21	8	16	16	15	5	2
Orange	183	4	9	25	16	19	14	8	4	1
Banana	183	3	8	23	14	23	16	7	5	2
Fruit juice	183	19	13	27	10	11	6	4	7	2
Dried fruit	183	3	1	6	5	19	23	26	14	2
Jam	183		2	15	8	26	22	16	10	1

Distinctive elements

Bananas are the most popular fruit in Croatia. Serbian respondents had a high consumption of apples and bananas, consumption of oranges is high too. Surprisingly they do not seem to appreciate fresh melon, even though it is a local product. Dried fruits were consumed less frequent than in other countries, even though they were consumed by a large group of the respondents, they are eaten only in winter time. Dried plums are considered to be traditional Serbian fruit so most people eat it but they are not very much appreciated. Canned fruit were consumed only by female respondents above the age of 40 who live in cities. All respondents however indicated to eat jam. Macedonian respondents' general profile is predominantly in line with the described common features. They reported higher percentages of 2 times a day consumption of apples (40%). The percentage respondents of Bosnia-Herzegovina that show a heavy (> 2 times per day) fruit juice consumption was lower than in the other countries. Fruits are eaten mostly in the early morning or evening, at home with family. The plum is the traditionally most grown fruit in Bosnia-Herzegovina but is barely eaten fresh. Fewer respondents in Slovenia reported they ate an apple twice a day. Berries and cherries are local products which are consumed more often than in other countries. A lot of Slovenian respondents consume fruits during a break at work or in school but they do not consume fruit after the main meal out of home. Most respondents, especially the younger ones, dislike dried fruits. Respondents from Montenegro were more often heavy consumers (> 2 times per day). In addition to the high consumption of apples and bananas, consumption of oranges is high too among Montenegro respondents. Also, the preference for home prepared jams and juices, without high amount of sugar and without artificial colours and flavours is higher.

4.2. Knowledge about nutritive value of fruit as part of a well-balanced diet

4.2.1. The role of fruit in disease prevention

Nearly all respondents agreed that fruit has a crucial role in disease prevention. Several diseases are mentioned although the list differed in length and variety for the 6 countries, such as:

1. colds, influenza, bacterial infections;
2. improvement of the immune system;
3. digestive problems;
4. prevention of metabolic diseases;
5. inflammation;
6. problems with bladder, kidney, liver;
7. cardiovascular diseases, elevated cholesterol;
8. bad blood circulation, hypertension;
9. mental health and spirit, psychosomatic diseases;
10. malignant diseases, tumour carcinoma;
11. atherosclerosis, diseases of the joints;
12. diabetes;
13. prevention of hair loss, tooth disease, gives the shine to nails and skin;
14. anaemia, lack of iron;
15. vitamin deficiencies, Vitamin C prevent scurvy, Vitamin D build calcium in the bones and help to produce melanin.

It seems that depended on the educational level, level of information and personal experiences answers varied to this question. Only a very few respondents from Macedonia answered that they don't know how fruit can improve health.

4.2.2. Other benefits of fruit

In addition also other benefits than preventive diseases were asked. Respondents mentioned issues related to digestion, the blood fat reduction and good for ones urine system. But also performance is mentioned, for example expressed as "fruit makes people perform for it gives energy and keeps people vital". In addition also appearance was mentioned, like "eating fruit makes people look better", "it's better for ones skin, hair and nails" and "it can keep people slim". Besides this, also it influences the activity of the brain and heart in positive way which makes that people sleep better. Fruit and it's vitamins are even said to make people happier and give them a better mood. Another benefit of fruit is that it quenches thirst. Although those benefits mentioned show partly overlap with the diseases mentioned before, generally spoken the focus is somewhat more on issues like vitality, energy, good mood and appearance. Thus the benefits are not only knowledge based, but also beliefs and feelings are taken into consideration.

4.2.3. Opinion about recommended frequency and quantity of fruit in the well balanced diet

The range of recommended levels of fruit differed per country. Nearly all respondents agreed that it is necessary to eat fruit every day at least once, but about the portion size different amounts are given.

- o Most participants of Bosnia-Herzegovina think that it is essential to eat fruit once or twice a day.

- In Macedonia almost everybody said that the minimal daily amount of fruit recommended by doctors is two portions. A very few mentioned that it is not important how much is consumed but that it is consumed regularly.
- In Serbia the recommendations identified were from one up to three intakes, ranging from 150 grams to 1 kilo per day.
- In Slovenia respondents estimated the recommended intake between a half to one kilogram of fruit a day and 300 to 500ml of fruit juice as well.
- In Croatia almost half of the respondents thought that the minimum amount of fruit recommended is one fruit daily, nearly the other half thought that they should eat 2 pieces of fruit a day. Only few left believed that 5 portions of fruit a day is recommended.
- In Montenegro recommendations ranged from one to three or more times a day, and quantitative from one piece of fruit to a kilogram or more. Most common responses were the following: in good balanced diet there should be a minimum of one fruit daily and quantitative intake ranged around 500 grams of fruit daily, evenly consumed 3-4 times a day.

4.3. Perception of healthy life style and well-balanced diet

For all six countries the same topics emerged when associating healthy life style. First, regular living, which includes a regular lifestyle which can be translated to enough sleep, balance between work and free time, no or less stress and visiting the doctor on regular basis are indicators. Second, food and diet, in terms of a regulated eating behaviour, eating main meals daily on regular times, eating enough fruit and vegetables and consuming a variety of food which should result in an intake of all nutrients and vitamins, not having a diet with too much fat, sugar or salt and moderation in consumption. Third, sports and being active, which includes all sorts of physical activity like fitness or recreation. Fourth, environment, nature or working in nature and clean air.

Furthermore people extracted less healthy habits to a well balanced diet such as alcohol and cigarettes. Besides that also some very specific issues about food were mentioned. For example mostly women thought of eating less meat, however some men (mostly rural men) said consumption of (white) meat is part of a well balanced diet. Also the preparation of food was closely related to health life style in a way that cooked food should be preferred above fast food, fried or baked food. Another issue which rose is that attention should be given to hygiene while preparing food. Finally, mostly rural respondents said, food should be without pesticides and therefore they prefer home grown and self prepared food.

Generally spoken the respondents consider a well balanced diet to be varied and well structured, with a pattern in timing and a proper number of portions, i.e. five times of food per day. A well balanced diet contains ingredients such as carbohydrates, proteins and vitamins while fat and sugar should be avoided. Specific food products are fruit and vegetables, cereals and dairy, and avoidance of sweets. In addition to the ingredients and food products also other issues are related to a well balanced diet such as organic, home made and home produced, e.g. home cooked suits better than fast food. In Slovenia consumers also referred to the food pyramid.

Thus, healthy lifestyle consists of food elements as well as sportive activities, environment and a regulated life. A well balanced diet consists of a variety of specific food products and ingredients produced and prepared in a proper way, besides also moderation is relevant.

4.4. Image of a fruit eater

By means of projective techniques insight in the associations with fruit eaters and non fruit eaters are gathered. An extensive overview is given in table 4.

Table 4 Descriptions of a fruit eater and non fruit eater

	The fruit eater	The non fruit eater
What does (s)he look like?	The fruit eater is beautiful, takes care of him or herself, is well-dressed, thin and not related to specific gender.	The non fruit eater is overweighted, pale, tired looking, sluggish, looks ugly with bad skin and teeth, most often male.
What kind of job does (s)he have?	A variety of jobs is mentioned such as nutritionist, beauty model, hair dresser, fitness trainer, student, pupil, teacher or someone artistic like a graphic designer, someone working in the fruit industry or a housewife with plenty of time and money to spent on her food and looks. He or she is well-educated and earns good money with his job.	A variety of jobs is mentioned such as a construction worker, doing hard physical work, office clerk, sitting behind the desk all day, or a very busy job like businessman or manager with no spare time, butchers or cooks, students, artistic persons or retired people, unemployed or low educated.
In what kind of household does (s)he live?	All different households and household sizes were mentioned. Some believe this is a single person living in the urban area. Others think this person is married or someone still living with his parents. Still most respondents believed this person lives in a single or small sized household	The household type varies but most believe he lives with his family. Mostly in urban areas. Some believe the household is low educated or it has financial problems or the person lives on his families expenses.
What does (s)he do in his/her spare time?	This person is active and vital and practices sports, like cycling, running or fitness. But also reading books or magazines, watching DVD's or resting.	A non fruit eater doesn't practise sports but watches TV a lot, and likes to eat while watching. He also enjoys to do nothing or to take a rest. Some believe they like to smoke, drink and go out.
What is his/her personality/ character?	Many positive characteristics or personality traits such as, calm, cheerful, good tempered, nice, soft, relaxed, committed, social, communicative humorous, well-organised, creative and stable were mentioned. Also less positive personality traits were mentioned such as being stubborn and vivacious, snappy and hasty or sometimes sweet sometimes peevish.	Many negative characteristics or personality traits are mentioned such as a bad temper, lazy, inactive, nervous, instable, unsatisfied, disillusioned with life and work, irresponsible, arrogant, displaying negative energy around and the lightest obstacle makes them angry. And also limited communicational skills, not very tolerant. Also positive characteristics are mentioned such as communicative, consistent, fair, good person with a cheerful nature, humorous and a little stubborn.
What's his her favourite television program?	A fruit eater doesn't watch that much TV and when he/she does it is sports, beauty and lifestyle, medical TV or movies, series and comedies or programmes that can be watched on National Geographic or Discovery channel and BBC.	Non fruit eaters watch a lot of TV, they like movies, series, soaps, westerns, entertainment shows or something else that doesn't upset them too much. But also they like to watch the news, politics, music channels or sports.
What's his her life motto?	Almost all respondents in all WBC gave the same motto: "Mens sana in corpore sano": a healthy mind in a healthy body is their life . A few mentioned "carpe diem".	Most respondents gave more or less the same motto to the non-fruit eater. They live from day to day and like to postpone things to the next day.
What does this person think of a Healthy life style?	A fruit eater really thinks about his/her lifestyle and tries to apply it in daily routine by eating healthy due to lots of fruit and vegetables, practising sports and regulate weight. It's a lifestyle that is considered desirable.	The non-fruit eater simply doesn't think about it. Some respondents believe he will start thinking about it when it is necessary. Others believe that non-fruit eaters think that they already consume healthy food and live a healthy life or they think all the best about it, but they don't do anything to change their habits and start to

<p>What does this person think of a well balanced diet ?</p>	<p>Nearly all believe that this diet is very important for this person and he/she tries to eat all types of food which should be consumed in proper quantities. However, fruit, vegetables and fish should be given priority.</p>	<p>live a healthy life. Some think this person doesn't live a healthy lifestyle due to its fast lifestyle or because he is a gourmand. Some respondents think a non-fruit eater doesn't think about a well balanced diet for they don't know what it means or simply don't like the taste of healthy food or just don't believe in it. Other respondents think that non-fruit eaters do know the meaning of a well-balanced diet but simply don't have the time or habit to act that way</p>
<p>What comes up in the mind of this person when saying fruit and health:</p>	<p>Most see the combination as inevitable. Furthermore it is associated with longer life, happiness, good immune system, being without diseases. Beauty and energy.</p>	<p>Answer to this question varied. Some believe they don't think about it, they don't connect fruit and health or they think that they don't need fruit for they are healthy without it. Others only think of unhealthy food like snacks, and lots of meat. They are afraid that healthy food and fruit doesn't give enough satiety. Others think of children who should eat enough fruit and mother who should give it to them.</p>
<p>What makes this person think that fruit is healthy or unhealthy?</p>	<p>Fruit eaters know it is healthy by their high education, personal experience, information from the media or because of the family habit to eat fruit.</p>	<p>Mostly they don't think that fruit is not healthy, just they don't have a habit to consume it, they don't have time or money or they think they don't really need it. Or they think that fruit should not be consumed in large amounts</p>
<p>Do you think this person thinks it is healthy? Why?</p>	<p>It is healthy due to the ingredients like vitamins that are valuable for someone's health. Besides many are accustomed to eat fruit since childhood. And some have their personal experience of eating fruit regularly and feeling well about that.</p>	<p>They may think that fruit is healthy due to general attitude about fruit, but they don't think a lot about it.</p>
<p>Do you think this person think it is unhealthy? Why?</p>	<p>They are absolutely sure that fruit is healthy.</p>	<p>Most respondents believe they don't think about it.</p>

The fruit eater and the non fruit eater seem to be opposites, although it is not that strict, but generally extremes are mentioned and nearly no nuance. The mottos of both the fruit eater and non fruit eater perfectly show that the general difference between those two groups is that respectively health plays a central role and enjoyment now is more important than health in future. Generally spoken associations with the non-fruit eater are expressed in terms with a more negative character. Only a few mentioned less positive characteristics as being too pale and being self-satisfied for fruit eaters. For fruit eaters health and appearance are important and they apply this to the food they choose, the behaviour with regard to sports. Thus for the fruit eater especially healthy habits are mentioned and for the non fruit eater the unhealthy habits are mentioned.

Difference between gender, young/ older respondents or rural/ urban respondents:

Among respondents from rural areas in Montenegro, where fruit is consumed in large amounts, there were difficulties to imagine a person who never or rarely consumed fruit. Several respondents declared (mostly elderly) that they can't imagine a person who never or rarely eats fruit. In Serbia respondents found it easier to describe a non fruit eater and are more 'friendly' towards them. See the following text: "Fruit consumers are considered attractive but unreachable, non-fruit consumer are seen all around – there are associated with our neighbours, our fathers, acquaintances and other people from our close surrounding. There is a justification, understanding even a certain compassion for them - they work hard, they are unsatisfied due to bad lives and bad economic situation. They are occupied with monotonous, hard and stressful work struggling to survive and feed themselves and their families. It is not surprising why they don't take care of themselves, can't buy fruit and prefer those food which makes them feel full (meat). There are many of those who are bad tempered among them, but there are also those who are fair and nice. Non-fruit

consumers have been described with more specific details than heavy fruit consumers. However, the stereotype of being obese, gourmands who like to eat meat and consuming cigarette and alcohol is what makes them a homogeneous group”.

4.5. Motives and barriers of consumption(fruit and food)

4.5.1.Spontaneous motivations for fruit consumption

Common features

In all countries ‘health’ and ‘taste’ were most mentioned as motives for fruit consumption. Other important motives are ‘source of vitamins, ‘good for your body’. Less frequent mentioned motives are ‘replacer for sweets’, ‘digestion’, ‘nutritive’, ‘gives a good feeling’, ‘pass some good habits to my children and surroundings’, and ‘increases concentration’. Appearance isn’t that relevant for most respondents, it is about taste and fruit doesn’t have to look perfect for that. Habits are considered important, learn eating fruits as a child and passing it to next generations. Tradition on the other hand is topic of discussion: traditional fruit eating habits do not always correspond with modern insights about health and recommended intake.

Distinctive elements

For women in Croatia fruits are considered a replacement for snacks and therefore good for weight control. In Montenegro, Bosnia, and Serbia it is mentioned by many respondents that they grew up with fruit. When they were little there was always a bowl of fruit in their homes. Convenience in preparation isn’t a barrier for most respondents and was mentioned especially in Bosnia Herzegovina. Most respondents said they consume fruit that are easy to wash and peel. Convenience to store is not an issue since fruit is easily available people buy small amounts. Refreshment was mentioned as a reason for fruit consumption in Bosnia Herzegovina and Montenegro. In Macedonia as well as in Montenegro and Bosnia the appearance of fruit isn’t important, it’s all about the taste. Furthermore none of the respondents in Macedonia find fruit inconvenient to eat or store

Difference between gender, young/ older respondents or rural/ urban respondents:

In Montenegro older respondents first emphasize the health benefits of fruit while younger respondents emphasize more on the pleasant or positive feelings and a combination with sports and other activities. Something similar was found in Serbia where rural respondents more often mentioned health and urban respondents talked about the likeness and pleasure of fruit. In Croatia women more often mentioned taking fruit as a substitute for sweets as well as a way to lose weight and its easiness of consumption.

4.5.2.Given motivations for fruit consumption

Common features

Table 5 shows that taste is the biggest motivation to consume fruit, followed by health and disease prevention. Its convenience to buy and tradition are the least important motivations for consuming fruit. Some small differences could be found between WBC. Of all WBC’s, appearance of fruit was the least important in Serbia, and all convenience motives were least important in Macedonia. Furthermore in Macedonia, respondents didn’t really see health and disease prevention as the most important motive for fruit consumption, for them it was taste of the fruit.

Table 5 Motivations for fruit consumption, total of all countries of most and least important motivations (percentage in top 5 and first rank)

Most important			Least important	
Motivations	Top 5	# 1	Motivations	Top 5
taste	85%	36%	Convenient to buy	70%
Health and disease prevention	81%	26%	Tradition	66%
Pleasure	65%	10%	Convenient to store	57%
eating habits	63%	15%	Appearance	56%
To feel fit	50%	3%	Convenient to prepare	48%
Convenient to eat	31%	-	Body image and beauty	40%
Appearance of fruit	27%	3%	Convenient to eat	37%
Body image and beauty	26%	1%	Eating habits	17%
Tradition	19%	2%	To feel fit	15%
Convenient to prepare	18%	2%		
Convenient to buy	15%	1%		

Distinctive elements

Very few differences were found between countries. In Serbia, 'body image and body' was less often reported as a top 5 important motivation compared to the other countries.

Difference between gender, young/ older respondents or rural/ urban respondents:

Few differences were found between the groups. Compared to other age groups, younger respondents more often rated taste as the most important attribute and older respondents more often included 'convenient to store' in their top 5 important attributes.

4.5.3. Motivations for consumption of fruit products

Common features

The mentioned motivations for consumption of processed foods is taste, health availability, and substitute for fresh fruit. Also pleasure is mentioned. Food products are less common than fresh fruits and consumed more in seasons when fresh fruit is less available.

Distinctive elements

In Montenegro fruit products aren't consumed that often and only when there isn't enough fresh fruit available. Named fruit products were juices and stewed fruit. Fruit products are also consumed to avoid eating unhealthy products. In Bosnia respondents said the production process of fruit products isn't that important. Motives for consumption are mainly health and disease prevention, or habit, taste and pleasure. In Serbia mainly jam and juices are frequently consumed. Jam is mostly homemade and always available (easy accessible). It is used during breakfast or dinner or as an ingredient for cakes etc. Juices are consumed as a substitute for fresh fruit and for its convenience. In Croatia motives to consume fruit products are its taste, its availability (same as in Serbia with jam and juices) and as a substitute for fresh fruit or less healthy food products. In Slovenia, tradition is an important motivation for consumption of processed fruits, they are an ingredient in several products. Most people preserve their own fruit which they trust more than the ones bought in a shop. It's always available and can be used all year. Although they prefer home made products, the supermarkets offer a wider variety of fruit in juices which they like as well.

Deliverable 5.2 Study report on consumer motivations and behaviours for fruits and fruit products in the Balkans

4.5.4. Motivations for consumption of dried fruit

Common features

Overall, the main motivations to consume dried fruits were taste, health, a better digestion, a substitute for fresh fruit, and a (healthy) snack. Also pleasure is mentioned.

Distinctive elements

In Montenegro and Bosnia Herzegovina dried fruit are eaten when there is no fresh fruit available or as a substitute for sweets. Although some mentioned it is high in calories as well which wouldn't make it a good substitute for sweets. In Montenegro respondents prefer own dried fruit instead of industrial. In Serbia and Slovenia dried fruit is mostly or only eating in winter when not that much of fresh fruit is available and as part of the tradition during religious holidays when it is consumed at home or with family gatherings. Some mention its health aspects and its good taste. In contrast most young Slovenian respondents do not like the taste of dried fruits. The main reason for most respondents for dried fruit consumption in Croatia is taste and good impact on digestion system. The main different motives for consumption of dried fruit compared to fresh and processed fruit is its good impact on the digestion system, its taste, and being a substitute for fresh fruit and candies.

4.5.5. Spontaneous barriers for fruit consumption

Common features

Most spontaneously mentioned barriers for not consuming fruit were 'lack of habit' or 'life style', followed by 'price'. 'Safety' and 'taste' were mentioned as well as possible barriers for consumption. Less frequent mentioned obstacles were 'availability', 'seasonality', 'laziness (to prepare)' and 'not being a fruit fan'.

Distinctive elements

In Montenegro some respondents from small rural areas stated that availability of fruit is an obstacle and they only or mostly consume fruit that grows in their own garden. In Serbia it was stated that fruit is mostly consumed at home and there isn't a habit of eating it on the move or out of home (places people are more and more these days). Time constraints are a barrier for higher consumption. In Slovenia people mentioned the unfamiliarity of certain fruits (e.g. kiwi). Furthermore their main reason not to consume fruit is the possible use of pesticides. Next some respondents see eating fruit as an impulsive thing and isn't in their routine.

Difference between gender, young/ older respondents or rural/ urban respondents:

Residents from rural areas all expressed that they consume enough fresh fruit, while (younger) urban respondents said eating fruit isn't a habit and for some due to its taste.

4.5.6. Given barriers for fruit consumption

Common features

In table 6 you can find the most important barriers for respondents of all 6 countries together. The most important barriers are safety, availability, and price.

Table 6 Barriers for fruit consumption		
Most important Barriers	Top 5	# 1
Safety (pesticides)	86%	23%
Availability	77%	28%

Price	72%	19%
Allergy	50%	7%
Inconvenient to store	43%	2%
Out of home	35%	3%
Inconvenient to eat	30%	5%
Taste	27%	9%

Distinctive elements

In contrast to other countries, inconvenience to buy and to prepare was mentioned by Croatian was more often in the top 5 barriers. Allergy was more often (in 90% of the cases) included in the top five barriers of Macedonian respondents, which is significantly higher than in the other countries. Availability was more often a top one barriers. Inconvenience to buy and to prepare on the other hand were less often chosen. Taste was more often reported as a top 5 barrier in Montenegro. 'Out of home' was more often reported as a top 5 barrier in Slovenia compared to other countries. Safety was more often ranked as the most important barrier while price was less often ranked first compared for Slovenian respondents compared to the others.

Difference between gender, young/ older respondents or rural/ urban respondents:

Younger respondents more often reported Allergy as their most important barrier. No other differences were found between gender, age or residence groups.

4.5.7. Barriers for consumption of fruit products

Common features

Barriers for consumption of fruit products is that respondents prefer fresh fruits and price. Respondents think that eating habits, availability, and product safety are relevant obstacles to a larger processed fruit consumption. Also mentioned is that they do not like the taste. In all countries fruit products are mostly seen as home-made products and not bought. Many respondents often relate the term 'availability' with the availability of fruit products that are home-made. They try to avoid products from factories saying that they contain a lot of 'unhealthy' ingredients. Habits are strongly correlated with the price of these products and with the way of life, which makes it impossible to introduce these products into their everyday diet. Potential obstacles to a larger processed fruit consumption, in the opinion of some respondents, are also the quality of processed fruit, the problem of transport, the lack of time (for the preparation and consumption) and the culture of living and eating. Furthermore for some respondents great obstacles are inconvenience of storage (mostly because of the lack of living space), the taste of the product and the fact that they are not fans of fruit in general.

Distinctive elements

Main barriers in Montenegro for consumption of fruit products include the lack of habit and also the fear of over consumption of preservatives and sugar from fruits. Furthermore there is a big barrier in safety on the use of artificial colours and flavours in the fruit processing industry. Price and availability aren't barriers at all in Montenegro. The main reasons in Serbia for lower consumption of processed fruit are lower likeability and preferences toward fresh fruit as well as absence of need and/or habit to eat processed fruit. Main barriers for processed fruit consumption in Croatia are because respondents prefer fresh fruit, not having a good taste, and a lack of habit. In Slovenia main barriers are too much sugar and being too artificial, using additives.

4.5.8. Barriers for consumption of dried fruits

Common features

For dried fruit consumption respondents reported the following barriers: they do not have the habit, do not like the taste, price. In all countries dried fruit are mostly seen as a product homemade and not bought.

Distinctive elements

In Montenegro dried fruit consumption isn't a habit, some respondents fear over consumption, due to the high amount of sugar, and its lack of juiciness and flavour, vitamins and ingredients which you do find in fresh fruit, is an obstacle for consumption. Price and availability aren't barriers at all in Montenegro for dried fruit as well as safety of the product. In Bosnia one of the most mentioned barriers for dried fruit consumption is the lack of habit. A few respondents believe that an important obstacle is the availability of the product, whereas some think about obstacles such as product safety, taste and the inappropriate marketing on the relevance of these products in the media. Most don't see price as an obstacle. In Serbia lower likeability, absence of habit and preferences toward fresh fruit are found to be the most important barriers in dried fruit consumption. Dried fruit is the least preferred by respondents compared with fresh fruit and processed fruit. The main barriers for dried fruit consumption in Croatia is lack of habit and price.

In Slovenia mainly for the younger generation, eating dried fruit isn't a habit or tradition. Furthermore it contains too much sugar and many don't like the taste of it.

4.5.9. Motivations towards food in general

Common features

Respondents had to determine how important 13 given attributes were on their general food consumption. Answers were on a 5-point scale varying from 'not important at all' to 'very important'. On average the most important attributes for food were: 'Containing no harmful substances e.g. pesticides', 'Preventing diseases/illness' and 'Giving energy' (see Table 7). The least important attributes were 'Not giving me dirty hands', 'Being fun', and 'being easy to take along'.

Table 7 Average score on Importance of 13 attributes related general food consumption and per answer category in percentages

	Average score	not important at all	Rather unimportant	Neither important nor unimportant	Rather important	Very important
1. Containing no harmful substances e.g. pesticides	4.6	1	1	5	18	73
2. Preventing diseases/illness	4.5	1	2	6	29	62
3. Having a good taste	4.5	2	1	5	27	64
4. Making me feel healthy	4.3	2	3	10	32	52
5. Making me feel a responsible parent (only when you have children)	4.3	4	2	4	12	38
6. Giving me energy	4.3	1	2	12	36	48

7. Making me feel doing the right thing	3.9	7	5	18	32	37
8. Helping me to satisfy my hunger	3.7	7	12	15	38	27
9. Bringing back good memory from my childhood	3.3	17	11	22	23	25
10. Being easy to take along	3.1	16	13	28	28	14
11. Not taking much time to eat is	3.1	15	19	30	17	15
12. Being fun	2.5	32	17	30	11	9
13. Not giving me dirty hands	2.2	39	24	21	9	7

Distinctive elements

Between countries some small differences can be found (see Table 8). Average scores on 'preventing disease/illness' were lower in Croatia and higher in Macedonia and Montenegro compared to the other countries. Scores on 'giving me energy' were higher in Macedonia and lower in Croatia and Serbia. Average scores on 'not giving me dirty hands' were generally low but somewhat higher in Montenegro and even lower in Bosnia and Herzegovina. Higher average scores on 'being easy to take along' were found in Slovenia. Higher scores on 'containing no harmful substances/pesticides' were found in Montenegro. For 'not taking much time to eat' higher scores were found for Croatia and Serbia and lower scores for Bosnia and Herzegovina. In Macedonia higher scores were found for 'helping me to satisfy my hunger'. 'making me feel healthy' had higher average scores in Montenegro and lower scores in Macedonia. For 'making me feel a responsible parent' a higher score was found in Serbia and a lower score in Slovenia. 'Being fun' and 'having a good taste' had higher scores in Macedonia. Finally, 'bringing back good memory from my childhood' had a higher score in Montenegro.

Table 8 Please indicate the importance of the 13 following attributes for your general food consumption – Average values

	Total	Country						Gender		Age			Type of settlement	
		Croatia	Macedonia	and Herzegovina	Serbia	Montenegro	Slovenia	Male	Female	18-30	31-50	50+	Urban	Rural
N	182	30	30	33	30	29	30	64	118	67	72	43	100	82
Preventing diseases/illness is ...	4.5	4.0**	4.8*	4.5	4.7	4.9**	4.4	4.5	4.5	4.4	4.6	4.6	4.5	4.6
Giving me energy is ...	4.3	4.0*	4.8**	4.2	3.9**	4.5	4.4	4.3	4.3	4.3	4.4	4.0*	4.2	4.4
Not giving me dirty hands is ...	2.2	2.5	2.5	1.8*	2.1	2.6*	1.9	1.9*	2.4*	2.3	2.2	2.0	2.1	2.4
Being easy to take along is ...	3.1	3.4	2.8	2.8	3.2	2.8	3.6*	3.0	3.2	3.2	3.0	3.1	2.9*	3.4*
Containing no harmful	4.6	4.5	4.6	4.6	4.6	4.9*	4.6	4.6	4.7	4.5	4.7	4.7	4.6	4.7

substances e.g. pesticides is ...															
Not taking much time to eat is ...	3.1	3.6*	3.1	2.4**	3.6*	2.9	3.0	3.1	3.1	3.0	3.1	3.1	3.0	3.2	
Helping me to satisfy my hunger is ...	3.7	3.7	4.2**	3.4	3.4	3.9	3.4	3.5	3.8	3.8	3.7	3.5	3.5	3.8	
Making me feel healthy is ...	4.3	4.2	3.9**	4.4	4.4	4.7*	4.3	4.2	4.4	4.1*	4.5*	4.3	4.4	4.3	
Making me feel doing the right thing is ...	3.9	3.8	3.8	4.1	3.9	4.1	3.6	3.8	3.9	3.6**	4.1	4.0	4.0	3.7	
Making me feel a responsible parent is (only when you have children) ...	4.3	4.1	3.9	4.4	4.8**	4.8	3.7**	4.2	4.4	3.9	4.4	4.3	4.2	4.4	
Being fun is ...	2.5	2.8	3.0*	2.2	2.2	2.6	2.1	2.3	2.5	2.5	2.6	2.3	2.4	2.5	
Having a good taste is ...	4.5	4.3	4.8*	4.6	4.6	4.4	4.2	4.6	4.4	4.6	4.4	4.5	4.5	4.5	
Bringing back good memory from my childhood is ...	3.3	2.9	3.1	3.3	3.4	3.9*	3.1	3.3	3.3	2.9**	3.4	3.7*	3.2	3.4	

* different from average at $p < .05$

** different from average at $p < .01$

'Containing no harmful substances/ pesticides' and 'Preventing diseases/illness', can be found in all top five's of the WBC's. The attribute 'having a good taste' was in all top five's except Montenegro, 'making me feel healthy' is found in all top five's except Macedonia and 'Making me feel a good parent' is in all top fives except Macedonia and Slovenia. Rather, in Macedonia, Montenegro and Slovenia 'giving me energy' is in de top five. In all six countries 'Not giving me dirty hands' is the least important attribute for food in general and 'Being fun', 'Bring back good memory from my childhood' were also in the top five of least important attributes in all WBC's. The attribute 'Being easy to take along', can be found in all top five's except for Slovenia. 'Not taking much time to eat' aren't in the top fives of Croatia and Serbia, while 'Helping to satisfy my hunger' can only be found in Serbia and Slovenia.

Difference between gender, young/ older respondents or rural/ urban respondents:

Common features

Only one difference was found between men and women: women rated 'not giving me dirty hands' as more important. Younger respondents (18-30) scored lower on importance of 'making me feel healthy', 'making me feel doing the right thing', and 'bringing back good memory from my childhood'. Middle aged respondents (31-50) scored higher on 'making me feel healthy' and older respondents (50+) scored lower on 'giving me energy' and higher on 'bringing back good memory from my childhood'. Rural residents differed from urban residents by ascribing higher importance to 'containing no harmful substances/pesticides'.

Distinctive elements

In Slovenia, between respondent groups, no expressive or clear differences could be made. For older people in general, disease prevention and making them feel healthy were more important than for the younger generation. The same situation was found with the attribute 'Giving me energy'. In Montenegro younger respondents gave higher importance to attributes like 'Not giving me dirty hands', 'Being easy to take along' and 'Not taking much time to eat' compared to the elderly. Female respondents more than male respondents gave higher importance to attributes such as 'Being easy to take along', 'Being fun' and 'Bringing back good memory from my childhood'. There were no big differences between respondents from rural and urban areas. In Bosnia food safety is more important for the female respondents, There are also small gender differences when it comes to having fun eating food. Male respondents exclusively say that there is no fun whereas female respondents have different opinions. Some of them think that it is a relevant or even most relevant feature of food. In Serbia the difference between respondents in urban- and rural areas is not consistent. The differences towards motivations on food can be found between the age groups 40+ and 40-. The age group 40+ shows a higher importance towards motivations given to the health and good feeling, as well as to the motivation 'Bringing back good memory from my childhood'. For the group 40- it is important that food doesn't give dirty hands. Women are more positive about attributes towards health protection.

4.6. Purchase

Common Features

In the entire region the green market is the most common source for fresh fruit: 70% of the respondents reported they buy their fruit there, while 49% bought fruit in supermarkets, and 39% directly at the farm (respondents could choose more than one outlet). For the main source of fruit (only one answer possible) again the top three consists of green market, supermarket and farms (see Figure 2 and Table 9). There is a remarkable difference with the where respondent would prefer to buy their fruits: they prefer green markets and farms over supermarkets with most preferred outlet being green markets (46%), farms (21%) and supermarkets (14%) (see Figure 3 and Table 10). Processed fruit is purchased mainly from supermarkets (43%).

Figure 2 Where do you buy fruit most often?

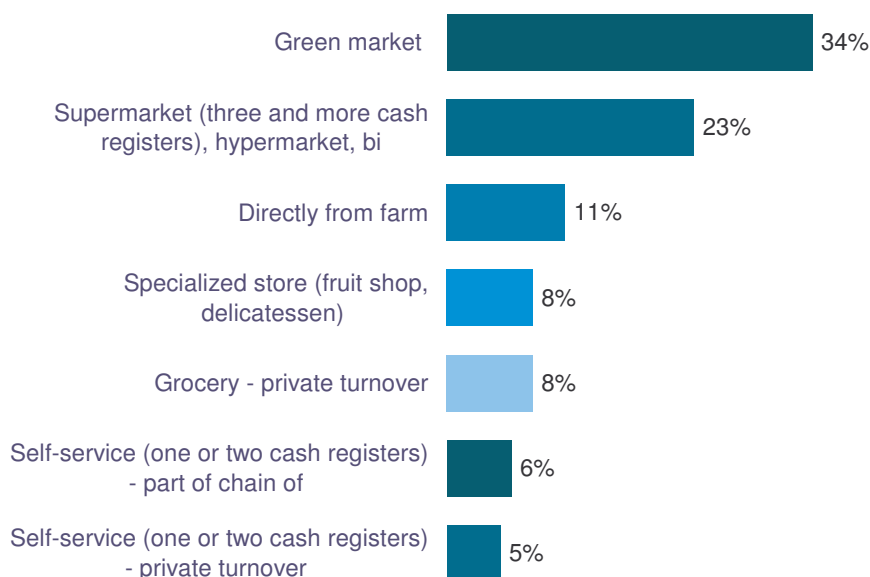


Table 9 Where do you buy fruit most often? (per country)

	Total	Country						Gender		Age			Type of settlement	
		Croatia	Macedonia	Bosnia and Herzegovina	Serbia	Montenegro	Slovenia	Male	Female	18-30	31-50	50+	Urban	Rural
N	183	30	30	33	30	30	30	64	119	67	72	44	101	82
sig				1.00				1.00		1.00			0.47	
Green market	34	57*	37	27	47	30	7*	34	34	30	31	45	34	34
Supermarket (three and more cash registers), hypermarket, bi	23	13	23	18	17	30	37	27	21	22	24	23	25	21
Directly from farm	11		33	06	07	07	13	11	11	10	15	05	05	18*
Specialized store (fruit shop, delicatessen)	08	03	03	12	03	10	17	08	08	12	08	02	10	06
Grocery - private turnover	08		03	24	07	07	03	06	08	07	10	05	07	09
Self-service (one or two cash registers) - part of chain of	06	17		03	03		13	06	06	04	06	09	06	06
Self-service (one or two cash registers) - private turnover	05				13	10	10	03	07	07	04	05	06	05
Grocery - part of chain of stores	03	10		06					04	03	03	02	04	01
Kiosk	01				03			02		01			01	
Missing	02			03		07		03	01	01		05	03	

* different from average at $p < .05$

Figure 3 Where do you prefer to buy fruit?

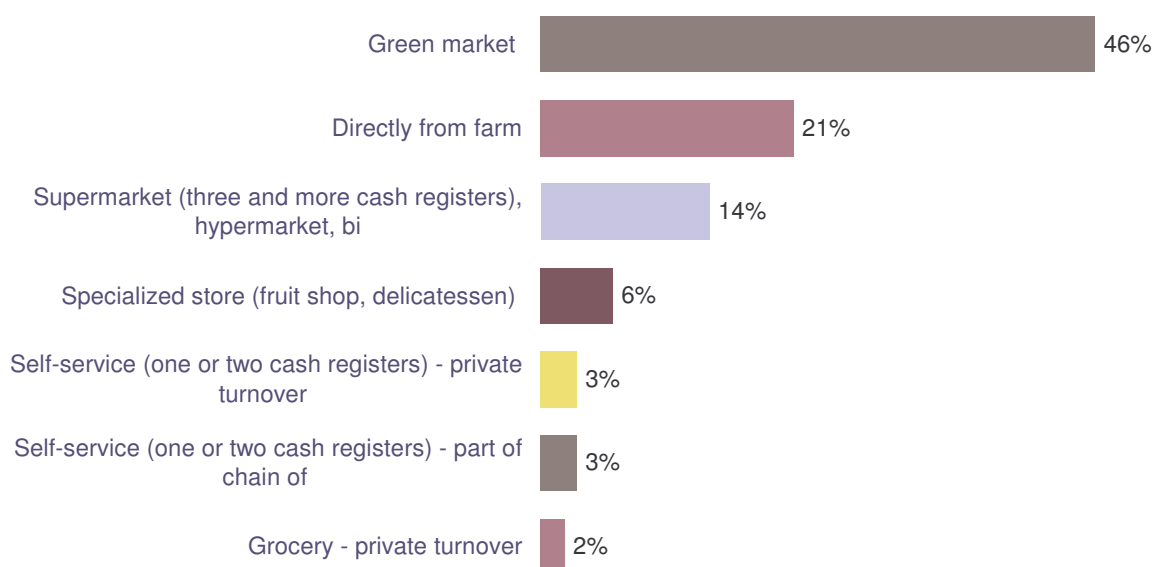


Table 10 Where do you prefer to buy fruit? (per country)

	Total	Country						Gender		Age			Type of settlement	
		Croatia	Macedonia	Bosnia and Herzegovina	Serbia	Montenegro	Slovenia	Male	Female	18-30	31-50	50+	Urban	Rural
N	183	30	30	33	30	30	30	64	119	67	72	44	101	82
Sig				1.00				0.98		1.00			0.95	
Green market	46	73*	40	39	50	43	33	44	48	43	42	59	45	49
Directly from farm	21	07	40*	21	23	13	20	22	20	21	25	14	16	27
Supermarket (three and more cash registers), hypermarket, bi	14	03	13	18	10	17	23	20	11	13	17	11	16	12
Specialized store (fruit shop, delicatessen)	06		07		07	10	13	05	07	12	04		08	04
Self-service (one or two cash registers) - private turnover	03			03		07	07		04	01	04	02	02	04
Self-service (one or two cash registers) - part of chain of	03	13					03	02	03	04		05	05	
Grocery - private turnover	02			06	03	03		03	02	01	03	02	01	04

Some place	other	02	06	03	03	04	03
Grocery - part of chain of stores		01	03	03	02	01	02
Kiosk		01		03	02	01	01
Missing		02	03	07	03	01	01

* different from average at $p < .05$

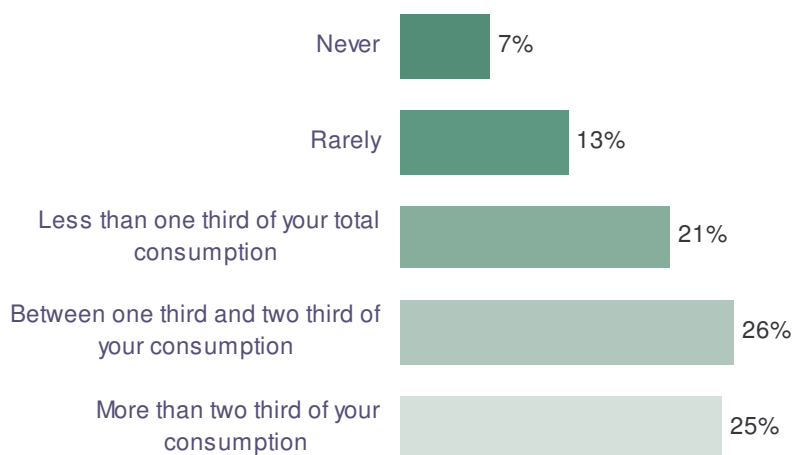
Distinctive elements

WBC prefer to buy their fruit at the green market and directly from farm, it is interesting that the actual buying of fruit in everyday life is higher than what is actually preferred. The share of fresh fruit purchased by Croatian consumers from self-service (chain) was significantly higher, and the green market was more often reported as the main fruit outlet compared to the other countries. Croatian respondents also more often reported to prefer the green market to purchase their fruits. Macedonian consumers less often reported to buy fruits from privately owned self-service stores. More often than in the other countries, buying fruit directly from farmers was indicated as the preferable place. The share of fresh fruit purchased by Bosnia-Herzegovina consumers from small private shops was significantly higher. Green markets were less often reported as the main source of fruit purchase for Slovenian consumers. The share of fresh fruit purchased by Montenegro consumers from supermarkets is significant.

4.7. Home-grown

Many consumers of WBC are familiar with fruit of home-grown origin, either from their own garden or from family or friends or picked in free nature. Only 20 % of the respondents rarely or never consume home-grown fruit (See Figure 4)

Figure 4 The share of consumption of home-grown fruit



The consumption of home grown fruit is less familiar for urban and young (18-30 years old) people.

Table 11 The share of consumption of home-grown fruit per country

Total	Country	Gender	Age	Type of settlement
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		Croatia	Macedonia	Bosnia and Herzegovina	Serbia	Montenegro	Slovenia	Male	Female	18-30	31-50	50+	Urban	Rural
N		183	30	30	33	30	30	64	119	67	72	44	101	82
Sig				1.00				0.51		0.64			0.01	
Never		7	10	20	6	7		8	7	10	7	2	12	1*
Rarely		13	27	7	6	7	17	20	9	19	8	11	14	12
Less than one third of your total consumption		21	17	10	30	30	20	20	21	24	21	16	23	18
Between one third and two third of your consumption		26	27	20	27	23	30	20	29	28	25	25	23	30
More than two third of your consumption		25	13	23	30	33	17	25	24	13	31	32	17	34
Do not know		7	7	20		7		6	7	3	7	11	10	2
Missing		2				3	7		3	1	1	2	2	1

* different from average at $p < .05$

Distinctive elements

Overall the countries seem to have the same estimated consumption of home-grown fruit. For Croatia and Montenegro the estimations of the respondents seem little lower, and for Serbia, Macedonia and Slovenia it seems a little higher.

Common Features

It is difficult to identify common features for consumption of home grown fruit as all the observed countries have different attitudes toward these kinds of products.

Distinctive elements

The consumption of own produced both fresh fruit and processed fruit is significant in Croatia and Serbia. In Croatia, the urban population consume less home grown fruit.

Whereas urban population rarely consume own produced fresh fruit, the rural population consumption of own produced fresh fruit is high in Macedonia. In Bosnia and Herzegovina, the consumption of own produced both fresh fruit and processed fruit is significant. On the other hand, the consumption of home-made dried fruit is limited.

The consumption of own produced both fresh fruit and processed fruit is significant in Slovenia. Urban population consume less unless they belong to older group of people. However, this is not case of younger Slovenians who live in cities. In Montenegro the consumption of own produced both fresh fruit and processed fruit is significant. Differences between rural and urban population exist regarding the share of individual consumption of home-grown fruits.

Differences and similarities of the WBC

The WBC consumers assess themselves as medium consumers of fruit, with fresh fruit being regularly consumed on a daily basis and in all WBC the green market is the most common source for fresh fruit whereas processed fruit is purchased from supermarkets.

Both own produced fresh and processed fruit are often consumed in WBC; but in general the urban population consumes less home grown fruit in Croatia, Macedonia and Slovenia, with exception of young urban Slovenians.

5. RESULTS FOCUS GROUP DISCUSSIONS

5.1. Health perception

In the focus groups little disagreement appeared on the topic of health perception. Generally respondents agree that health is a very important and valuable thing. Diet and physical activity (sports but also walking) are mentioned as important for good health, however, people often do not mention details of a healthy diet, if they do they mention fruit and vegetables and sometimes vitamins. Rather, people bring up very different aspects of life which seems mostly related to life and happiness in general.

Balanced is an important concept, which is mentioned in relation to food, physical activity but also to other aspects of life. Related to this, feeling good, a good mood, happiness, and positive thinking/attitude are often brought up. A few times people stress the importance of healthy living (eating) of family members, especially children, to feed them healthily. An aspect that is sometimes mentioned is harmony in family life and partner relationships, love from family and friends. Some people refer to stress and work as important for health. Finally, people also state that one often forgets how important health is until you are ill, related to this they mention the important consequences of not being healthy: pain and not being able to live the life you want.

For the perception of health in daily life, the majority of the respondents indicate that they do not think about health in such a detailed manner and on such a daily basis. They do not have time to think about health and only do if they are experiencing health problems, if they hear about other people not being healthy, or to a lesser degree because they are engaged in sports. A few people indicate they believe that young people especially do not think about health. Also, some respondents believe that exaggerating and thinking of health all the time is also not healthy. Finally, few respondents say they sometimes take a break in thinking about health, for example when they are on holiday.

Other aspects that are discussed in several groups but brought up by fewer individuals include: the relation between health and smoking, alcohol, and drugs. Also mentioned but less frequently are healthy, clean water and pure air, and personal hygiene.

Slovenia

In urban Slovenia sports and physical activity are often mentioned while this is not in the rural group. Also people mention the importance of being able to go to places you want and do things you like.

Serbia

In the urban Serbia focus group there was high emphasis on mood, happiness, and mental health in relation to general health, both of themselves and their families. Also, a few respondents reported more details about what kind of diet they consider healthy, this among others included home grown and not chemically treated fruits and vegetables. Finally, an issue that has not been brought up in other focus groups was the importance of nature for health.

Two respondents in rural Serbia report that money is needed to be able to buy healthy food and enable healthy living. The importance of being able to do what you want and achieve your goals, and sports as a way of healthy living are very frequently mentioned. The social concept in this discussion not only includes family but also friends.

Bosnia and Herzegovina

Bosnia-Herzegovina urban respondents again put a high importance to diet and origin of ingredients; they prefer home grown/made, pesticides free, fresh and organic foods. Like in other urban focus groups, there is a lot of attention to sports and physical activity. Bosnia-

Herzegovina rural respondents often report clean water as important for health. Also personal hygiene is mentioned very often (7 out of 10 respondents). The importance of work was only mentioned by men and not by women.

Macedonia

Urban Macedonia focus group issues are mostly in line with the general perception. People value quality of life: psychological, physical and social. In the rural Macedonia focus group many respondents mention happiness, good mood, psychological health. Other comments are also in line with the general perception.

Croatia

In urban Croatia, all participants mention sports or physical activity and diet as important for health. In rural Croatia again, sports and diet (food) are the most common answers. Five out of six respondents also mention personal hygiene.

Montenegro

In the urban Montenegro focus group people have different views about health, some emphasis diet, sports, and hygiene, others happiness and good mood, and a third group considers health as a wealth and a great gift (from God). The aspects mentioned in this third group are also of great importance in the rural Montenegro focus group: respondents refer to health as the greatest wealth, something that comes at the first place.

5.2. Health perception of fruit

A large number of respondents states they (strive to) consume fruit daily, often at specific moments of the day. They do so because they are well aware of the importance of fruit, because they like eating fruits, because it is a habit (from childhood), and to replace meals or sweets. Even if they do not like fruit or do not eat it daily they acknowledge its importance for health and see a clear relationship between the two. One group of respondents says they should improve their consumption and eat more fruit. People with children mentioned that they are aware of the importance of fruit and health for their children and try harder for them than for themselves. The main reasons for not eating fruits are availability in their own homes, it is not a habit, or because they do not like it.

Montenegro

In urban Montenegro, most people indicate that the most important reason not to think about health daily is that other daily responsibilities take most of their attention. In the rural Montenegro focus group respondents agreed that they rarely think about health on a daily basis.

Croatia

In Urban Croatia some respondents think that seasonable fruit is healthier, while others do not believe some fruits are healthier than others. In the rural focus group Croatia 3 out of 6 respondents said that they think about health daily, read about it on the internet and newspapers and talk with others about health.

Macedonia

In urban Macedonia, all participants agreed that health was very important and they were aware about that. Similarly in rural Macedonia, all but one respondent said they think of health frequently.

Slovenia

In the urban Slovenia focus group not all participants believe fruit is that healthy; two respondents mention that fruit also contains sugar. Others however point out that it contains

vitamins, is good for digestion and metabolism, cleans your body and gives a good feeling. Again production (use of pesticides) and transport are considered of important influence on the health value of fruit. In rural Slovenia a few respondents agree that home-grown fruits are healthier due to it's production, storage and, ripeness when picked. With regard to living healthily some have problems with that. This might be due to a lack of discipline, especially when talking about sports and exercises.

Serbia

Urban Serbia discussion points were in line with general remarks. Rural Serbia also puts great emphasis on home-grown products, they state that home grown and prepared is healthier than products with additives, produced with chemicals.

Bosnia and Herzegovina

Most respondents in the Bosnia and Herzegovina urban group indicate they take care of their health but do not think about it daily, they believe fruit is good for your health and eat it regularly. Rural BiH discussion was mostly in line with general comments.

5.3. Well balanced diet

A well balanced diet is defined by most respondents by the following aspects: variety/diversity, fruits, vegetables, structure/regularity, boiled and cooked meals, moderate/small portions, less meat, eating according to recommendations (food pyramid), adequate amount of calories, proteins, carbohydrates, fats, vitamins, and minerals, avoid fast foods, fresh food (not-freeze, no preservatives, frequent meals. In addition individuals mention: less spices, some kind of nuts, avoiding of overheating oil, not to much sugar and salt, sufficient liquids, local products, meat with less fat, fish, chicken, dried fruit, honey, grains, wine, no frying or grill. In several focus groups they issue was brought up that what is balanced depends on the person: age, work, activities. A diet should suit individual needs. Similarly, some respondents say there is no general rule for a balanced diet, rather the body tells what it needs, one should eat "what the organism needs".

Most respondents believe their diet is not balanced, although a proportion (more female than male) also thinks it is, many indicate they try but do not always succeed, some are partly satisfied: they only succeed now and then (for example not in wintertime, or not during holidays) or they think it is but are not sure. Some respondents find it difficult to state they have either a balanced or not-balanced diet. Instead they believe their diet is balanced to some extend although they do not strictly stick to the rules. An overview of the participants and their perception if their diet is balanced or not, and the reason why they perceive it like that please see annex 3.

The most important reasons and aspects for having balanced diet are that they eat (boiled) vegetables, home prepared meals, fruit, regular meals, and various foods. Also, they mention that taking care of their family and role-modelling healthy eating for their children is an important reason to eat a balanced diet. Respondents who say they do not have a balanced diet say it is because they eat: a lot of meat, little fruit and vegetables, no variety, irregularly (skip meals), a lot of fast food, fatty or sweet foods, too much. Reasons for not eating balanced are because they have bad habits, break the rules, lack finances, doing hard labour work, lack of time to prepare meals (again often due to work), or eat in student canteens. Finally, especially respondents in rural areas say they find it difficult balance the needs of their husband (who is doing hard labour work) and those of other family members.

Like in previous discussions, almost all respondents agree that fruit important for health and therefore part of a balanced diet. Again, some the respondents emphasize the importance of fruit for children. In the rural Serbia focus group respondents thought the importance of fruit is sometimes over-exaggerated in media. In rural Slovenia, respondents say they have more global ideas about how much fruit is needed, not the exact amount as communicated in the media.

5.4. Availability and out of home

Common

For a large group of participants there is no habit to eat fruit out of home, although there are a few participants who do consume fruit out of home. This small group always mentions that health is their motivation to eat fruit out of home and they mention that there are different types of fruits which are more or less convenient to bring with you. It seems that out of home consumption of fruit is not a habit for most of the people. Participants mention several barriers for fruit consumption out of home. The issue of hygiene is raised, for example at work there is no possibility to wash the fruit or the hands before or after preparing and consumption, besides how to deal with the waste such as skin and pits. Several participants mention that eating fruit is not social or to eat fruit with others is embarrassing, "you do not eat fruit in front of others", "no one eats fruit, so it doesn't trigger me". It is perceived as not hygienic to eat fruit in the bus. It is generally not accepted to eat fruit outside home in public places. Besides that fruit doesn't suit in the fast way of living nowadays. Although those barriers come forward it is also stated that when someone offers it and prepares it, they will eat it. They know substitutes which are much better for socializing, such as a coffee, cigarette or chocolate for kids. In addition fruit is also inconvenient to bring with you. Besides also availability in shops near work, price and the seasonality of fruit and its quality is mentioned. The discussion shows a contradiction for convenience, the people who do eat fruit know types of fruit which are easy to take along, while the biggest group seems to experience many barriers such as availability, inconvenient to take with you, no water available.

Distinctive

In Bosnia especially the role of parents and their impact on habits was discussed. Parents have to give their children fruit in order to develop a habit. Besides that it was also mentioned that some people cannot afford to eat fruit everyday. In Slovenia, availability is most important issue for not eating fruit out of home. Besides that the rural Slovenian participants have the feeling that they do not only eat fruit at home. For the Serbian rural sample it seems that female participants were more prone, while the barriers for fruit consumption were mostly emphasized by male participants. In the urban sample of Serbia fruits products like yoghurt are preferred above fresh fruit, because those are easier to take with you.

In Croatia the rural participants especially mentioned aspects related to convenience which are experienced as barriers to eat fruit out of home such as waste disposal. The urban sample of Montenegro mentioned the association of out of home fruit consumption with being active outdoor or picking fruit for refreshment. In line with this the rural sample mentions that out of home they like to eat wild fruits and they like to pick their own fruits, in order to avoid a lack of confidence in the quality.

It seems that there is a difference for man and woman, woman do eat fruit out of home more often. Besides that it also seems that there is a difference for urban and rural participants, for rural participants the issue of seasonality and availability is raised more often.

5.5. Home grown and open market/supermarket

Common

Generally participants prefer green market to buy fruits, it is very important to them buying fruit from someone they know than they are more confident in that the fruit is not treated with chemicals and that it are local products. Fruit safety is an issue for the people. In rural areas there is more home grown fruit, while there is more supermarket shopping in urban areas. (see Table 12)

Distinctive

In Montenegro the rural sample prefers home grown if they have it themselves or from family or friends. For them the green market is the most preferred place to buy fruit. From the urban sample only a few get fruit from family or friends, they prefer to buy on green market but also buy in supermarket. The rural participants of Macedonia did not mention price, probably due to the reasonable prices of fruit in Macedonia. The urban participants prefer to buy at green market and believe individual sellers more than big supermarket chains.

In the rural sample of Bosnia participants have fruit from domestic production or from green market. Even some participants have bigger orchards themselves and sell the fruit. If they buy fruit, then they buy it in green market or small shops. They especially like the contact with the seller. They also do shopping in the supermarkets but only when they have to get all things for housekeeping and never go there for fruit alone.

For the Bosnian sample there is a difference between urban and rural, rural has a lot of home grown fruit and green market, while the urban participants are often buying in supermarket chains. It seems that for the Slovenia sample rural as well as urban, most fruits are bought in supermarkets. For Serbia some people have habit with regard to a specific channel, while others do their buying at different channels. It seems that elderly prefer green markets more often. Younger people think supermarkets are more convenient. In Serbia there is a general scepticism of fruit safety, it is believed to be over treated with pesticides, and their idea is that trustful suppliers are rather rare. Besides it is mentioned that most of the respondents clearly state their rejection to buy seasonal fruit all year round. The Croatian participants mostly buy in supermarket, due to availability and offer.

Table 12 Overview of all motives and barriers mentioned of different channels

	Motives home grown/ green market	Barriers home grown/ green market	Motives supermarket	Barriers supermarket
Montenegro rural	Less treated Affordable price Local - to support production and purchase conditions Better quality Healthier (we know how it is grown) Cleaner Fresher I know the people who sell	Fruit is not treated and get spoiled quickly Not sufficient amounts sold very quickly Not many producers of home grown products Availability Not well organized purchase	Lack of time Easier access Availability whole year Compensates for fruits which are not available in the season or fruit which is not grown in own country Longer storability	Worse appearance Forced growing, not tasty fruit Price, expensive Less quality Lack of confidence in quality and origin Treatment changed taste
Montenegro urban	Fresh fruit in the morning/ season Know people, confidence More tasty and fresh	Far away from house, only in weekend No time to go Not enough fruit Not well stocked Working hours at green market overlap with own working hours	Convenient supply More fruit available Open hours wider than green market Supermarkets are everywhere Lack of time Working hours Nearest shop Various fruits Cheaper than green market	Fruit not fresh enough Fruit seems unnatural Less tasty Artificially Price
Macedonia rural	More natural atmosphere Bigger choice Always same seller	No big offer time	Specific types of fruit	Not a big choice, More expensive
Macedonia urban	No pesticides used Fruit at green market is closer to home grown	She doesn't want a crowded place where someone is convincing that he has the best products	In neighbourhood More freedom, no suggestions from sellers Tropical fruits available	Less fresh Not sure where fruit comes from and if it is fresh or not Doesn't like to shop in supermarket
Bosnia rural	Petrol costs			
Bosnia urban	Good assortment When you buy more	High temperature in summer, fruits gets	Availability Get fruit along with	

	you get discount	rotten You cannot choose the fruit yourself Not many green markets in the city Awkward when it rains No frozen fruit	regular purchases You can choose the fruit yourself Facilities to store the fruit are better Visual arrangement of fruit in shop	weekly	
Serbia rural	Direct contact with fruit and grower Modern markets in Belgrade offer same fruit products Not chemically treated Try the taste of fruit before buying	Weather conditions Storage conditions Market too crowded Unpleasant smells everywhere. Our farmers are still not well educated; I am still not 100% sure about quality	Everything in one place Even in winter exotic fruit More attractive Pay with credit card		Bananas are not kept in a proper way Unknown country of origin, transportation time conditions of storage unknown
Serbia urban	When I buy green market I help some villager	Sanitary inspection should do a better job in green market.			
Croatia urban			Great offer in supermarket Buys fruit here in winter much more often while many fruit markets do not work Poor quality Unripe fruit		Less healthy because you do not know where it is from. Fruit is not fresh it is in a freezer Do not like that other people touch fruit Imported fruit does not have a good taste and looks artificial
Croatia Rural					Long in stock before it is sold

Distinctive

For Macedonia there seems to be a difference in choice in supermarket, for rural it is a small choice while in urban area there is more fruit available. In Slovenian sample there are some people do not want to buy home grown on the street due to contamination. It seems that in Slovenia in urban as well as rural area supermarkets are more familiar. In Croatia urban participants prefer to choose for supermarket due to distance and the availability of fruit and other food. In the rural area they prefer their own production, which is not sprayed.

Future

Discussion about the future of fruit consumption and buying shows opposites for all focus groups ranging from "artificial" fruit products such as tablets and pills to home grown traditional self picked fruit and everything in between. The opposites are present in nearly all discussions although in some discussion the examples are a bit more extreme than others.

The discussion in Montenegro of rural people shows controversy and confrontations, from all options when fruits and vegetables are all imported, industrial and exclusive shopping in supermarkets to home grown and no import of fruits. In the urban sample especially the trend towards more supermarkets and no villages anymore was mentioned.

In Macedonia the rural sample expects the position of fruit from preserved fruit products to fruit produced on own land for children, and big farms where consumers can pick fruit themselves. They combined both in having production on big farms and consumers picking the fruit themselves.

In Slovenia also opposites are mentioned from fruit in pills and vending machines or buying via intranet and on the other hand selling domestically old varieties of fruit.

In Serbia also the contradictions are mentioned, back to villages and home grown fruit and on the other hand tablets of fruit and virtual orchards.

The Croatia urban and rural participants expect to have no fresh fruit consumption in future but fruit products such as powder, vacuum packed fruit, pre-packed and peeled fruit.

5.6. National fruit

General

Many types of fruits are mentioned. For each country there are some who are mentioned more frequent (see Table 13). People consider it as national fruit when they have the fruit in their own garden or see it on the green market a lot. Besides that national fruit also contains a minimum of pesticides. Therefore national fruit is considered to be more healthy, it tastes better and is easier to preserve. Apple is popular as natural fruit for all WBC. For Croatia tangerine and for Serbia plum are mentioned as the most popular national fruit. It seems that the 6 countries differ a bit in the importance they attach to eating fruit from their own country of origin, for some countries variety or quality is even more important.

Table 13 National fruits per country

Country	National fruit	Discussion
Montenegro	Apple Grapes plums Also Pear, figs,	Many types of fruit can be grown in Montenegro. Tradition of making fruit products and alcohol beverages
Macedonia	Apple Grapes Also peach, plums	Good condition (lots of sun) for growing fruit in Macedonia. If possible people only buy Macedonian fruit Macedonian fruit is the best because it is less treated with chemicals "Fruit is something we should be proud of"
Bosnia	Apple plum Pear Also Peaches, , strawberries, cherry	Traditional species as well as new species. Contradiction about quality one says soil is poisoned other says far less pesticide. Traditional fruit is produced in a safe controlled manner, therefore it is a better quality than fruit produced on big farms or imported fruit "Musmula" is a national fruit
Slovenia	Apple Pears Cherry Plum Also grapes	Plum was the national fruit, but now it isn't anymore Domestic fruits are associated with tasty, healthy, juicy, fresh, appearance, grown in soil which is not polluted as in other countries Some traditional fruits are not know anymore "nesplje" Slovenian fruits are adapted to Slovene citizens. There was a debate about origin and variety. Domestically grown fruit is preferred because of freshness, better quality, less time spent in storage. There is also some influence of national feelings.
Serbia	Plums Apples Pear Also cherry, raspberry	Our fruit is unsurpassed. Climate is extremely appropriate for fruit production; it is proven by high yield of fruits National fruit is healthy, and it is available, cheap and delicious products could be made of it. It could be preserved for winter time and they like to eat it like that as well, not only as fresh fruit.
Croatia	Tangerine Apple Plums Also strawberries, grapes, figs	Although participants don't follow the origin of fruit which they buy, they prefer to buy Croatian rather than imported fruits

5.7. Fruit from other countries

Generally participants prefer local fruit, although the level of importance varies per country. It seems that for Slovenia the linkage between the country and its speciality is more important than domestic on its own. The Croatian sample seems less familiar with the country of origin. Also a few respondents raise the issue that they buy imported fruit if it concerns oranges or bananas. The issue of trusting producers is raised several times.

Montenegro

For the rural participants of Montenegro, the origin of fruit is very important. They give priority to the fruit from Montenegro, they avoid certain regions, such as the region around KAP, TE Pljevlja, "Željezara " Niksic. They prefer domestic fruit which is less polluted and of high quality because it is tasty, untreated and grown in a natural way. After the Montenegrin fruit, the fruit from the region is chosen, from for example Serbia, Croatia, Bosnia and Macedonia. They also prefer fruit from Slovenia, they feel that they respect EU standards and therefore they trust Slovenian producers. They would not buy fruit from Albania (all participants agree, because of lack of hygiene), from the Ukraine (because of radiation), and also the producers of fruits from for example Romania and Bulgaria are not trusted because they do not respect standards. The respondents also stated that they are sometimes suspicious when buying fruit because they hesitate about whether sellers provide true information about the origin of goods. The urban participants agree that local producers do not have enough support of the state. They say that with better support people will return to the village and produce enough fruit for the domestic market.

Macedonia

Most rural participants stated that fruit from WBC countries is good with sufficient quality. Concerning fruits from other countries outside the region, they stated that those fruits are probably treated with chemicals to maintain the good appearance. Participants are not sure of the quality of the fruits offered from distant countries, but still they buy that fruit if they want to try tropical fruit.

Urban participants think that WBC fruit has good quality and if there is no Macedonian fruit they prefer to buy fruits originally from for example Serbia and Greece. Tropical fruits are bought rarely and it is not that important where they come from. Appearance is important since that is the only thing that by which the fruit can be assessed before buying it.

Bosnia and Herzegovina

In most cases, the rural participants pay attention to the origin of the fruit they buy, however not all of them do it and not for all fruit types. They believe that the quality is better in Slovenia and Croatia, but due to the recent war they do not buy this fruit. Participants also take into account the places where they do the shopping (DeltaMaxi – fruit from Serbia, Merkator- fruit from Slovenia, Konzum – fruit from Croatia). Fruit coming from other countries is treated the same with the exception of China. They believe that Chinese fruit is bad due to long transport and presupposed process of production. Still, participants care about the packs and they conclude that the imported fruit is packed nicely and looks better, which is more appealing to the shoppers. The nice pack presupposes more hygiene and higher quality, as far as health is concerned. Participants believe that domestic fruit is healthier, due to less pesticide, but it is badly presented to the shoppers. Imported fruit is treated more with pesticides and herbicides, which enables it to last longer. Imported fruit is selected and bought based on the emotional attachment to the country of origin. Fruit from the neighbouring countries is more appealing due to better presentation.

Urban

The participants believe that the fruit from the neighbouring countries is similar to ours due to climate and similar technology. Few participants prefer fruit grown in Serbia, due to emotional or some other reasons. Imported fruit is divided into two groups: European and other countries. Fruits from other continents is the least favourite due to pesticides and other treatments in order to last the long way here (and that raises the health issue as well). The

participants don't trust the fruit from China which has to do with the bad quality of other Chinese products that are sold in Bosnia. Spain or Turkey are believed to be a good soil for growing citruses so this fruit is thought to be of a good quality. When it comes to quality, the participants say that imported fruit is better packed and looks nicer unlike the domestic products. They agree it looks better but sometimes it is too perfect so they get the impression it is artificial. Some participants don't have the money so they buy domestic products that are cheaper and others are trying to help the domestic production. A group of participants believe that the fruit which looks perfect is definitely treated with pesticides and are not healthy, so they decide to buy the fruit with worm holes or some other signs of disease. The participants believe that the fruit from the neighbouring countries is similar to ours so they have no problems buying this fruit. European fruit is desired more than the fruit coming from other continents due to vicinity and health condition. Imported fruit is much better presented to the customers than our domestic fruit. On the other hand, this fruit is somewhat more expensive than Bosnian fruit and it looks less natural, which is a great minus from the consumers' point of view.

Slovenia

Local products are preferred about others, but each region has its own fruits with outstanding quality. For the consumer of today the fruits of other countries are a must: "When I buy oranges I always try to find oranges from Israel". West Balkan countries are traditionally known for their specific fruits. Quality of fruits from some other countries is seen as the standard quality. Generally participants do not perceive fruits from these countries as fruits of low quality. It is rather comparable with fruits which are imported to Slovenia from other countries.

Serbia rural

The fruit from other WBC is generally well accepted, it is perceived to be of similar quality. Fruits which are not grown in Serbia like tangerines and kiwi are preferred to be obtained from Montenegro (Bar) and Croatia. However, in general there is a strong preference of Serbian fruit, although the reasons for this were not particularly explained. Contrary to it, fruit imported from other countries (except bananas and citruses which have to be imported) is considered of a not very good taste (plastic) and smell (doesn't smell like fruit). Regarding, bananas and citruses no respondent stated preferable country of origin.

Urban

Everybody agreed that all WBC have the same kind of fruit. Moreover, all of them eat citruses and bananas and they don't care where they come from. They don't believe that sellers at green market want to tell them where some fruit is grown.

Respondents think that fruit from WBC is fresh and of good quality. They prefer to eat fruit with beautiful appearance, even though they think that this fruit is less healthy (it is genetically modified) than fruit which is small, with some worms in it.

Croatia

Urban and rural group do not know exactly which fruits produced in WBC. Nevertheless, all participants know grapes from Macedonia. The reason for this may be that in Croatia many supermarkets sell Macedonian grapes and wines. Less than half of the participants do not know which fruits are produced in other countries. The other half mentioned for example that bananas come from South America and grapes from Italy. All this confirms that urban and rural populations don't check the country of origin of fruit.

6. DISCUSSION

When interpreting the results we have to be aware that a qualitative research approach was followed, for the in depth interviews in total 183 respondents participated and for the focus groups all together 96 people participated. Although the sample is balanced for gender and region, relatively students are overrepresented. Generally spoken the 6 WBC show the same variety in the answers and the same pattern for most of the issues discussed in the in-depth interviews, but for some issues exceptions are shown. In this part we will reflect on the results and if possible we will compare with literature from WBC and EU. This exploratory research is a rich overview of consumers perception and consumption of fruit. It will have a follow up in which interesting insights will be tested for a representative sample.

6.1. Consumption of fruit in a well balanced diet

Before a discussion about the perception of health and a well balanced diet there will be a reflection on the consumption of fruit.

Consumption of fruit and fruit products

Generally, the consumption of fruit seems comparable for all WBC. Fresh fruit consumption is rather high, 82% of the respondents consume a portion of fruit at least once a day, and even 56 % says they consume two or more portions a day. It seems that in Montenegro there is a higher amount of people consuming fruit more than two times a day.

When experts are talking about fruit consumption a contradicting picture emerges, some say that the actual consumption meets the recommendations while others think that they do not reach the recommendations (Delic and Zimmermann, 2010). Although this study shows a rather high consumption there are several issues to mention. At first this measurement of consumption might be overestimated since a self administered measurement instrument was used, in which people are easily giving social desirable answers. Second, an alternative explanation for the relatively high consumption of fresh fruit is the high education level of our sample. But at the same time this higher education level is mainly due to students while students are often indicated that they do not eat healthily. Third, compared to fruit consumption of EU, it also shows that the amount consumed is rather high. Fourth, this rather high consumption is also in contrast with the discussed issue that in WBC there is a the lack of habit of fruit consumption. The experts also mentioned this. Fifth, from experts it is known that statistics of WBC may show some bias (Delic and Zimmermann, 2010). One of the reasons that fruit consumption is underestimated might be due to the fact that home grown fruit is usually not taken into consideration in those statistics. In our research this was included in the total consumption and the specific question about this showed that for a large group of consumers home grown fruit is one third or even two third of their total consumption. It may be concluded that for many consumers this home grown fruit may not be overlooked. While this study has an exploratory character additional research is needed to get insight in the actual fruit consumption of consumers of WBC.

Surprisingly with regard to the demographic variables, for sex, age and urban and rural no differences are found. Usually females consume more fruit than man but this seems not the case in this study. However, The relative small sample size might play a role in this, because within the focus groups it was suggested that females eat more fruit than man and have a more positive attitude towards fruit. This insight in specific target groups is of interest for WBC authorities, which show an increasing interest in public policy promoting fruit consumption. They want to promote health and well being in particular to young people, but also male,

because they seem to be more exposed to overweight. Therefore also future research is needed.

Fruit consumption mainly at home

Fruit consumption in WBC is mainly at home. It seems that only a few consumers eat fruit out of home. For this small group health seems to be the main motive. Thus, predominantly fruit is consumed at home at various times of the day. Taking the developments with regard to urbanisation in society and the increasing quota of out of home meal consumption may lead to increasing problems. For a large group of participants there is no habit development to eat fruit out of home due to that they experience several barriers for fruit consumption out of home. Barriers mentioned are hygiene, for example at work there is no possibility to wash the fruit or the hands before or after preparing and consumption, and waste in terms of how to deal with the waste such as skin and pits. Several participants mention that eating fruit is not social or to eat fruit with others is embarrassing, "you do not eat fruit in front of others". It is perceived as not hygienic to eat fruit in the bus. It seems generally not accepted to eat fruit outside home in public places.

Fruit products

The most popular fruits are apples, this is in line with consumption in the rest of Europe. Other more often consumed fruits are, bananas, peaches, oranges, and (seasonally) local fruits. Fruit juices and jam are the processed fruit products which are most often consumed. Participants prefer home-grown, local, fresh and seasonal fruit over exotic fruit and fruit products. The least often consumed is dried fruit, respondents eat dried fruits only when fresh fruit is less available or when they have the habit. This is in line with consumer research about dried fruit in Poland and the Netherlands, which shows that the image of dried fruit differs per country, for example in Poland it is a traditional product for the Christmas season and in the Netherlands it is perceived as an old fashioned food product (Jesionkowska et al 2008). It suggests that the perception in WBC is somewhat in between the perceptions of those two countries; older people like it, while younger people don't. Although the consumption of fruit products was not discussed that detailed it seems that processed fruits such as jam is especially consumed more often out of season.

Perception of health and a balanced diet

There was a strong agreement between respondents that health is a very important and valuable thing. Its importance however is not considered daily by most people due to daily duties and time constraints. Health problems are the occasion that people start thinking about health. A healthy lifestyle is defined by the following topics: regular living and lifestyle, food and diet, sports and physical activity, nature and clean environment, no unhealthy habits, hygiene while preparing food, and lack of pesticides. For health, balance is an important concept which is mentioned in relation to food, physical activity, and other aspects of life, this is in accordance with Sijtsema et al (2007). A balanced diet is characterized by variety/diversity, structure/regularity, boiled and cooked meals, moderate/small portions, fresh food (not-frozen, no preservatives, frequent meals, and eating according to recommendations (food pyramid). At product level respondents mention fruits, vegetables, less meat, and avoid fast foods. Finally, at nutrient level adequate amount of calories, proteins, carbohydrates, fats, vitamins, and minerals are mentioned. Those associations with regard to health are in line with literature. Moreover we should also be aware that persons can be segmented in different groups for example with regard to health consciousness but also different perceptions of health (Geeroms et al 2008).

Fruit in relation to health and a balanced diet

In the perception of WBC consumers fruit suits in a well-balanced diet. Consumers think of fruit as being preventive for a wide variety of diseases. In addition, fruit is believed to have an impact on vitality/energy, good mood, and appearance (beauty). This awareness of health is also mentioned by experts who say that consumers' awareness of health is raised (Delic and Zimmermann, 2010).

Respondents also agree that fruit should be eaten daily, but the portion sizes differ between with some believe 1 piece per day is recommended while others believe that up to 5 pieces or 1 kilogram is needed for a balanced diet.

Overall, knowledge on the details of a balanced diet and recommended amounts of fruit intake differ by country and by educational level, level of information, and personal experience. However, the vast majority of the respondents agree that fruit is related to health and therefore an important part of a healthy diet (and especially for children). In addition, most respondents can spontaneously name aspects of a healthy diet and fruit is often one of those. In contrast to this positive finding, the majority of the respondents think their own diet is not (optimally) balanced and also their fruit consumption could be improved.

As mentioned before almost all respondents believe that fruit is related to health and part of a healthy lifestyle. This is in line with the paper of the Head of the Health Promotion Centre Institute of Public Health of the Republic of Slovenia, Mojca Gabrijelčič Blenkuš (2007) identifies "Fruit and Vegetable" as one of the key food groups in human diet and promotes the measures of the European Commission (in particular the School Fruit Scheme) to promote fruit consumption to prevent increasing trends of excessive body weight and obesity in children and adolescents. In particular she stresses the attention to the equal accessibility of these measures, which represent an effective tool for ensuring equity in health, would provide social equity for all children and help them develop healthy dietary habits.

Similarly to the perception that fruit is related to health, the image of fruit eater is someone with a healthy lifestyle, good looking and active and having the motto "a healthy mind in a healthy body". The non fruit eater is someone who is not interested in health at all, watches a lot of television and their motto is "to live from day to day". Although in Isafruit (Sijtsema et al 2007a) a similar picture emerged, there are a few differences. In WBC contrasting images were discussed with the fruit eater more positive and the not fruit eater negative, especially with regard to several aspects related to health, in Isafruit the fruit eaters image was positive for health while the non fruit eater was more positive for a more social life and less regulated lifestyle. Besides it also seems that in the way it was discussed that although the non fruit eater has a somewhat negative image the WBC do not have problems to identify themselves with the non fruit eater, while generally the Isafruit participants did not want to be associated with the non fruit eater.

In addition to this it should be mentioned that the image of eating fruit also shows contradicting results. On one side fruit eating has a very positive meaning to people which is mainly associated with health, but on the other hand the focus groups show that eating fruit together with friends is not very social or even embarrassing. This issue needs attention especially if out of home consumption is promoted. It might be the case that health oriented consumers have a different perception than less health oriented consumers. Summarizing fruit eating is generally perceived as healthy and positive, fruit is mainly eaten at home. For part of the respondents eating fruits out of home is unfamiliar not for socializing or even embarrassing.

6.2. Motives and barriers

General motives for food

For food choice in general, the issue of safety with regard to containing harmful substances such as pesticides is the most important barrier for food choice of WBC consumers. Besides that also taste and health are very important motives. These motives and barriers are also present in literature of EU countries (Steptoe et al 1995).

Motives and barriers for fruit

Compared to food in general for fruit the same motives are mentioned. Taste and health are the most important motives and safety is the most important barriers. This is in line with isafruit research in which good taste is the most important and next to that some health issues such as giving me energy, satisfies my hunger and makes me feel healthy. Also in Isafruit the issue

Deliverable 5.2 Study report on consumer motivations and behaviours for fruits and fruit products in the Balkans

of safety was important in terms of containing no pesticides. In WBC and in Poland, Greece Spain and the Netherlands also taste was the most important motive. There was tentative evidence that the younger respondents find taste more important than the older ones. Surprisingly the issues related to convenience seems of less importance in WBC compared to EU. But if we take a closer look, for example with regard to preparation or easiness of buying, which isn't very important to WBC consumers. But at the same time the respondents said they consume fruit that is easy to wash and peel. Another issue which can be seen as an aspect of convenience is availability, which is next to price an important barrier to consume fruit. Thus although convenience it not that important compared to taste, health, in the focus groups also was mentioned that time is a barrier to eat fruit at work/out of home. Availability is an important barrier for fruit consumption in WBC as well as price and safety.

When targeting at specific groups, such as age. We have to take into consideration that generally speaking younger respondents emphasize more on the pleasant or positive feelings of fruit and a combination with sports and other activities. Younger urban respondents, also, said eating fruit isn't a habit and for some this is due to its taste. The younger respondents (18-30) scored lower on importance of 'making me feel healthy', 'making me feel doing the right thing', and 'bringing back good memory from my childhood'

Home grown fruit and national fruit in WBC

At least half of the WBC consumers says that one third of the fruit they consume is home grown or from orchards from family or friends. For one fourth of the respondents it is even one fourth of their consumption. This is a specific characteristic of fruit consumption in the WBC, which might have influence on their consumption, which might be underestimated because it is not taken into account in statistics, this is mentioned in the expert interviews in deliverable 5.1 (Delic and Zimmermann). This consumption of home grown fruit might also have influence on how consumers perceive and consume fruit. First, seasonality plays an important role in home grown fruit consumption. Second, consumer do the harvesting themselves. Third, in the season prepare preservatives of fruit. Fourth, they get the fruit from people they know. These are all issues which the EU consumers are nearly not familiar with. Besides, in contrast to what is know from European studies the appearance is not at all important to WBC consumers. In addition, if people buy fruit they prefer to buy it at the green market or directly from a farm, the supermarket in this case is not that popular. Although especially in the urban area a part of purchase is made in the supermarket. People prefer to buy from the green market because the consumer wants to know from where and from who their fruit is from. This can be linked to the fact that the safety issue is very important so they want to buy their fruit from who they trust. In line with this is that there seems to be a high awareness of fruit of their own country, nearly all WBC tell that they prefer national fruit. For the Slovenian sample this seems the least relevant.

If people buy fruit they prefer to buy it from someone they know and who they can trust, therefore green market and farmer are far more popular than supermarket. This motivation is related to the fact that participants prefer to buy fruit without preservatives. Although consumers have the perception that fruit from supermarket contains more pesticides, at this moment it is not clear whether fruit bought in the supermarket contains more, the same or less pesticides than home-grown fruit.

6.3. Quantitative survey - Future research

This study explored fruit consumption in the WBC. Several interesting findings need further research in order to be able to develop strategies for interventions or product development to increase fruit consumption. First of all a more specific and if possible a longitudinal study of fruit consumption would be really of value. In this study especially attention should be for the amount of home grown fruit in the total consumption this study already shows that WBC actually consumer a lot home grown fruit. It would be interesting to get insight in what types of fruit are most popular to have home grown. In line with the most popular and national fruit it

might be expected that apple is the most popular, but is this the case? Future research is needed to further explore home grown fruit in more detail with regard to the amount and also what types of fruit.

Experts as well as the consumers in our study mentioned that there is a lack of habit with regard to fruit consumption. A closer look of development of eating habits with regard to fruit might be helpful to better understand consumer and take this into consideration when developing interventions. Although fruit consumption seems rather high at the same time there is no habit of eating fruit. Another contradiction is that for the perception of fruit at one side it is positive and closely related to health on the other side it is not social to eat fruit with friends. Further research is needed to explore if this is an issue for many consumers and how this group could be characterized.

Also the issue of convenience needs attention, although in the in depth interview convenience issues are not ranked that urgent in the focus groups the issue of time needed to prepare fruits and also the barriers related to consumption of fruit at work when not having water to wash the fruit and to wash hands seem to be relevant especially when eating fruit out of home. It would be a challenge to find out which elements of convenience are relevant for the WBC consumer and for which place and situation they are relevant.

Safety is an important issue for WBC consumers not only for food in general but also for fruit specific. Therefore they prefer to buy fruit from a person they know and trust. This result suggests the buying in a supermarket is really a barrier for WBC, but this seems not the case. Further research is needed to explore the perception of people buying in the supermarket and what should supermarkets do to inform consumers about safety.

6.4. Concluding remarks

Generally spoken fruit consumption and perception is rather comparable for the different WBC. Fruit perfectly suits in a healthy diet, but still it is not clear how many consumers reach the recommended levels.

Compared to EU there are some interesting differences which need attention in future research; i.e. the actual consumption of fruit and fruit products and the impact of the large amount of home grown fruit. With regard to the health perception of fruit especially the issue of safety and trust of fruit is interesting related to the place where people prefer and actually buy their fruit. Generally the motives and barriers are in line with EU but there are some exceptions with regard to convenience which seems not that important in WBC although availability is a barrier. A food consumption survey as well as further studies of consumers' perceptions of fruit are needed to better understand the consumer in order to create innovations for fruit and its sector as well as tailored interventions.

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8. ANNEX 1: Questionnaire in depth interviews

Recruitment form and Questionnaire Consumer's in-dept interview, WP 5

#####

Recruitment form

Good morning, my name is _____ and I contact you on behalf of the University of_____, representing a research consortium from 15 European and Balkans countries, in the framework of a European project we organize a survey concerning lifestyle and health concerns in all Balkans countries.

The aim of the project is to have a discussion with consumers of about one hour, if possible at your home. No one will try to sell you anything. We are just interesting in hearing your opinions. And in hearing something about your habits. All the interviews will be anonymous. To thank you for your participation in our project, you will receive ____.

Are you interested in participating at this project and have a discussion with me?

If yes,

First, I have just a few questions concerning your household, in order to have a balanced group of interviewees.

1. Gender

(1) Male ____

(2) Female ____

2. Do you, or does any member of your household work in any of the following areas?

Market Research/Marketing department or company	If yes	CLOSE INTERVIEW
Advertising/Communication department or company	If yes	CLOSE INTERVIEW
A food institute, ministry or company	If yes	CLOSE INTERVIEW
Journalism	If yes	CONTINUE
Health sector	If yes	CONTINUE

3. Do you have participated in any market research such as individual interviews or group discussion in the last 3 months?

YES	CLOSE INTERVIEW
NO	CONTINUE

4. In what town do you live? Please tell me the exact name :

5. Do you know how many habitants live in this town?

6. Age: For the research purpose, it is necessary to ask you about your age. Could you please indicate your exact age?

If not willing to give exact age, ask the following:

In which of following categories does your age belong:

Less than 18 years old	CLOSE INTERVIEW
19-30 years old	CONTINUE
31-40 years old	CONTINUE
41-50 years old	CONTINUE
51-60	CONTINUE
More than 60 years	CONTINUE

7. How many persons do live in your household (including yourself):

8. Could you please indicate your educational background?

Elementary school	1	Low
High school	2	Medium
College	3	Higher
University	3	Higher

9. What is your employment status?

- (1) Employed
- (2) Retired
- (3) Student
- (4) Unemployed
- (5) Housewife
- (6) In the army

10. In which of the following categories was your family income (net) last month?

- (1) Without income
- (2) Less than
- (3) From
- (4) From
- (5) More than
- (6) I do not know / No answer (do not respond) / I do not want to answer

#####

Interview guide

Introduction

Good morning/afternoon/evening. My name isI appreciate that you take the time to take part in this survey.

Interviewer checks if data is correct which is given during recruitment.

1. What are you thinking of when I say Healthy life style?

Follow up questions needed can you think of more?

(needs to be described in full)

2. What are you thinking of when I say a well balanced diet?

Follow up questions needed can you think of more?

(needs to be described in full)

CONSUMPTION

Now we are going to speak about your own consumption of fruit

Fresh fruit

Here I have some cards with the names of different fruit products.

(cards (apple, orange, pear, banana, peach, plum, strawberry, kiwi, melon, water melon, black berry, freshly squeezed orange juicy, fresh fruit salad).

Layout provided by SMMRI

3: Please choose the three types of fruit you most often eat during the year.

And then ask for each type of fruit separately:

follow up questions needed

- **why do you eat these fruits?**
- **what you like about these fruits**
- **what you dislike about these fruits?**
- **when and with whom do you eat these fruits?** *Try to be precise where with whom*

4: Please choose the three products of fruit you prefer to eat.

And then ask for each type of fruit separately:

follow up questions needed

From the fruit not already mentioned in exercise 1, ask following questions

- **why do you prefer to eat these fruit?**
- **what do you like about these fruits**
- **what do you dislike?**
- **when and with whom do you eat these fruits?** *Try to be precise where with whom*

5: Please choose the three types of fruit you never or rarely consume.

- **Please tell me why you do not eat those fruits?**

Now we will speak about processed fruit.

6 –What sort of processed fruit, like canned fruit, jam and juices (which can be stored a long time and can be kept outside the fridge), do you eat or drink?

Could you tell me for each type of processed fruits that you consume?

- **what do you like about these processed fruit products and what do you dislike?**
- **when and with whom do you consume (eat or drink) these processed fruit products?**

Now we will speak about dried fruit

7 – When do you generally consume dried fruit (fig, dates, plums, apricot, raisins):

- **Could you give examples of types of dried fruits that you consume?:**

- for each example, could you tell me:
 - what you like about these dried fruits and what you dislike?
 - when and with whom do you eat these fruits?

8 - What is your favourite fruit when you are...

follow up questions

At home and you have your main meal	
At work or at school and you have your main meal	
At home and you have a snack	
At work or at school and you have a snack	
On the move and you have a snack	

MOTIVATIONS towards fruit in general

9 - For you personally, for what reasons do you consume fresh fruit?

If respondent refers to what is answered in question 3,4,5, please let him/her tell again.

Follow up questions

10- Please select the 5 most important motivations and rank them. (1 is most important and 5 the least important).

Motivations	Rank from 1 to 5
Tradition	
Eating habits	
Taste	
Appearance of fruit	
Pleasure	
Convenient to eat	
Convenient to buy	
Convenient to prepare	
Convenient to store	
To feel fit	
Health and disease prevention	
Body image and beauty	
Out of home	
Other	

Could you please describe why you selected the 5 most important motivations?

- Why is “motivation 1” important to you?

follow up questions

- Why is “motivation 2” important to you?

follow up questions

- Why is “motivation 3” important to you?

follow up questions

- Why is “motivation 4” important to you?

follow up questions

- Why is “motivation 5” important to you?

follow up questions

11- Please select the 5 least important motivations.

Motivations	Mark with “x”
Tradition	
Eating habits	
Taste	
Appearance of fruit	

Pleasure	
Convenient to eat	
Convenient to buy	
Convenient to prepare	
Convenient to store	
To feel fit	
Health and disease prevention	
Body image and beauty	
Out of home	
Other	

Could you please describe why you selected the 5 least important motivations?

- **Why are those not important to you?**

follow up questions

12 - For you personally, for what reasons do you consume processed fruit (canned fruit, jam and juices)?

13- For you personally, for what reasons do you consume dried fruit (raisins, fig, dates, plums, apricot) ?

14- Could you tell me why you don't consume more fresh fruit?

follow up questions

15 - Please select the 5 most important barriers and rank them. (1 is the most important and 5 the least important).

	Rank from 1 to 5
Availability	
Taste	
Price	
Inconvenient to eat	
Inconvenient to buy	
Inconvenient to prepare	
Inconvenient to store	
Out of home	
Safety (pesticides)	
Allergy	
Others	

Could you please describe why you selected the 5 most important barriers?

- **Why is "barrier 1" important to you?**

follow up questions

- **Why is "barrier 2" important to you?**

follow up questions

- **Why is "barrier 3" important to you?**

follow up questions

- **Why is "barrier 4" important to you?**

follow up questions

- **Why is "barrier 5" important to you?**

follow up questions

16 –Could you explain for what reasons you don't consume more processed fruit?

17- Could you explain for what reasons you don't consume more dried fruit?

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IMAGE of FRUIT CONSUMER: PROJECTIVE TECHNIQUE

Now we enter a new part of the interview. In this part we would like to hear about your ideas and images. This means that in this part there are no right or wrong answers. We are especially interested how you think about this.

Interviewers should create an open sphere and use follow up questions.

18 Think of someone who eats a lot of fruit.

Follow up questions

- **Can you tell me more about the life of this person?**
- **What does (s)he look like?**
- **What kind of job does (s)he have?**
- **In what kind of household does (s)he live?**
- **What does (s)he do in his/her spare time?**
- **What is his/her personality/ character?**
- **What's his/her favorite television program?**
- **What's his/her life motto?**
- **What does this person think about Healthy life style?**
- **What does this person think about Well balanced diet?**
- **What comes up in the mind of this person when saying fruit and health?**
- **What makes this person think that fruit is healthy or unhealthy?**
Do you think this person thinks that fruit is healthy? Why?
Do you think this person think that fruit is unhealthy? Why?

19 Think of someone who never eats fruit.

Follow up questions

- **Can you tell me more about the life of this person?**
- **What does (s)he look like?**
- **What kind of job does (s)he have?**
- **In what kind of household does (s)he live?**
- **What does (s)he do in his/her spare time?**
- **What is his/her personality/ character?**
- **What's his/her favorite television program?**
- **What's his/her life motto?**
- **What does this person think about Healthy life style?**
- **What does this person think about Well balanced diet?**
- **What comes up in the mind of this person when saying fruit and health?**
- **What makes this person think that fruit is healthy or unhealthy?**
Do you think this person thinks that fruit is healthy? Why?
Do you think this person think that fruit is unhealthy? Why?

CONSUMPTION

20- How many times did you eat fresh fruit yesterday? And how many portions?

Biscuits with fruit and yogurt with fruit are not taken into account, because the content of fruit is too low. A fruit salad counts for one time. A “portion” is approximately 80-100g, for example an apple, two full spoons of fruit salad or 1 glass (of freshly squeezed) fruit juice.

21 - Do you classify yourself as a heavy, medium or light consumer of fresh fruit?

22. How much and how often do you eat fresh fruit in general?

Biscuits with fruit and yogurt with fruit are not taken into account, because the content of fruit is too low. A fruit salad counts for one time. A “portion” is approximately 80-100g, for example an apple, two full spoons of fruit salad or 1 glass (of freshly squeezed) fruit juice.

	More than 2 times a day	2 times a day	Once a day	3-6 times a week	1-2 times a week	Less than once a week	Less than one time a month	Never
Fresh fruit	1	2	3	4	5	6	7	8

23 - On average, how often do you consume the following products?

	More than 2 times a day	2 times a day	Once a day	3-6 times a week	1-2 times a week	Less than once a week	Less than once a month	Never
Whole apple	1	2	3	4	5	6	7	8
Whole peach	1	2	3	4	5	6	7	8
Orange	1	2	3	4	5	6	7	8
Banana	1	2	3	4	5	6	7	8
Fruit juice	1	2	3	4	5	6	7	8
Dried fruit	1	2	3	4	5	6	7	8
Jam	1	2	3	4	5	6	7	8

KNOWLEDGE towards nutritional value of fruit and part in a well balance diet

24 - Do you think that fruit consumption has an important role in prevention of human diseases? If yes, for what kind of diseases?

25 - What other benefits can you think of, other than preventing diseases?

26- In your opinion, how often and how much fruit do people have to consume according to the well balanced diet recommendations?

CLOSED QUESTIONS

In this part of the interview we have some closed questions I would like to ask you. I will read the questions and mark your answers.

MOTIVATIONS towards food in general

27- Please indicate the importance of the 13 following attributes for your general food consumption.

	Not important at all	Rather unimportant	Neither important nor unimportant	Rather important	Very important
	1	2	3	4	5
Preventing diseases/illness is					
Giving me energy is					
Not giving me dirty hands is					
Being easy to take along is					
Containing no harmful substances e.g. pesticides is					
Not taking much time to eat is					
Helping me to satisfy my hunger is					
Making me feel healthy is					
Making me feel doing the right thing is					
Making me feel a responsible parent is (only when you have children)					
Being fun is					
Having a good taste is					
Bringing back good memory from my childhood is					

PURCHASE

28- In which of the following places do you buy fresh fruit?

	Where do you buy fresh fruit? (several responses possible)	Where do you buy fruit most often? (1 response possible)	Where do you prefer to buy fruit? (1 response possible)
1. Grocery - private turnover	1	1	1
2. Grocery - part of chain of stores	2	2	2
3. Self-service (one or two cash registers) - private turnover	3	3	3
4. Self-service (one or two cash registers) - part of chain of stores	4	4	4
5. Supermarket (three and more cash registers), hypermarket, big trading centre	5	5	5
6. Green market	6	6	6
7. Specialized store (fruit shop, delicatessen)	7	7	7
8. Kiosk	8	8	8
9. Directly from farm	9	9	9
10. Some other place	10	10	10

29- Where do you buy processed fruit and dried fruit (several responses possible)?

	Where do you buy processed fresh fruit most often? (only 1 response possible)	Where do you buy dried fruit most often? (only 1 response possible)
1. Grocery - private turnover	1	1
2. Grocery - part of chain of stores	2	2
3. Self-service (one or two cash registers) - private turnover	3	3
4. Self-service (one or two cash registers) - part of chain of stores	4	4
5. Supermarket (three and more cash registers), hypermarket, big trading centre	5	5
6. Green market	6	6
7. Specialized store (fruit shop, delicatessen)	7	7
8. Kiosk	8	8
9. Directly from farm	9	9
10. Some other place	10	10

HOME GROWN FRUIT

30- Could you estimate the share of fresh fruit consumed from your own garden and orchard (or garden of your family or friends) or picked in the free nature within your whole consumption of fresh fruit.

- 1. Rarely
- 2. Less than one third of your total consumption
- 3. Between one third and two third of your consumption
- 4. More than two third of your consumption
- 5. Never
- 6. Do not know

31- Could you estimate the share of processed fruit consumed from your own garden and orchard (or garden of your family or friends) or from fruits picked in the free nature within your whole consumption of processed fruit.

- 1. Rarely
- 2. Less than one third of your total consumption
- 3. Between one third and two third of your consumption
- 4. More than two third of your consumption
- 5. Never
- 6. Do not know

32- Please indicate whether the following 11 statements are true or false.

The respondent has to answer true or false

	True (1)	False (2)
A medium size apple contains more calories than a medium size banana	1	2
Eating fruit is only beneficial for the health when also vegetables are eaten daily	1	2
Adding pieces of fruit to the diet results in weight loss	1	2
It is generally recommended to eat at least 2 portion of fruit each day	1	2
It is generally recommended to eat not more than five portions of fruit each day	1	2
Scientific evidence in general indicates that a diet with lots of fruit may prevent certain cancers	1	2
Scientific evidence in general says that a diet with lots of fruits prevent hart diseases	1	2
Scientific evidence in general says that a diet with lots of fruits prevents sunburns	1	2
Scientific evidence in general says that certain fruits prevent digestion problems	1	2
Scientific evidence in general says that a diet with lots of fruits helps you to stay alert	1	2
In general, one fresh fruit contains more fibres than one slice of brown or fibre-enriched bread	1	2

Thanks for your participation

9. ANNEX 2: Guide focus group discussion

Focus groups WP5 Focus Balkans

10 min	1. Introduction
15 min	2A. Warming up and Health perception
15 min	2B. Health perception and Fruit
15 min	3. Fruit variety (convenience) and habits
10 min	Break (is optional)
15 min	4. Purchase
15 min	5. National versus fruits from other countries
20 min	6. Well balanced diet and knowledge
5 min	7. Evaluation and good bye

Research questions:

- Insight in position of health in wider context of other issues of concern, and role of fruit (2A, 2B).
- Why is there nearly no fruit consumption out of home?
- Get insight in barriers of home grown and supermarket.
- Get insight in availability (or convenience).
- Perception national versus fruits from other countries.
- Insight in the knowledge about well balanced diet and fruit.

General Information

- One focus group will be with urban people the other with rural. Slovenia will use the definition about amount of inhabitants of a town. The other partners will make a division between having an own garden available or not. There should be a balance for gender and age between 18 – 60, screening for fruit consumption is not needed.
- Make sure there is a positive atmosphere in which people feel comfortable. Make sure people feel that they can tell you everything and that they are listened to. Serve something to drink (like coffee and tea) and something to go with it (like cookies).
- Make sure everybody is able to talk and that there is a balance in the amount of time the different participants talk.
- Make sure that participants all give their *own* opinion; **make sure they don't take over others opinions too easily**. On several points in time the participants are asked to write things down, the reason is to make sure they'll give their own ideas or opinions.
- Make sure that your own knowledge and view does not influence the session. Avoid to say things like 'Of course we all know that fruit is healthy'.
- Watch the time to make sure the complete program will be finished.
- Make sure all materials are prepared. This includes the materials mentioned as well as water, glasses, pencils etc.
- Tell participants the session is being taped / videotaped but only for the purpose of writing the report. The tapes will not be used for any other purposes and all what they say is considered confidential and will be presented in report as typical statement divided from the person who say it.

List of materials

- Pen /pencils for participants;
- Paper for participants;
- Voice recorder or tape recorder;
- Flip chart;
- Tape;
- Present for participants;
- Coffee, tea and other refreshments.

10 min	1. Introduction
	<ul style="list-style-type: none">- Introduce the session in general terms but don't explain the purpose of the project in terms of health etc. Just say that the EU wants more insight in the opinion of European and Balkans citizens about consumption of food. Don't mention the word fruit! - Explain the participants that there are no right and wrong answers, whatever they think is important to us. Furthermore we don't need consensus on a topic within the group. If people have different opinions on topics that's okay, we aren't here to convince each other. We are here to hear all your personal ideas. - Procedural remarks: Kindly ask them to turn off their cell phones so the group won't be interrupted during the session. If needed, there will be a short break during the session where they can use the restrooms if needed or smoke a cigarette. Tell them the time when the session is probably finished. - Acquaintance: All participants introduce themselves shortly (in terms of age, occupation, family situation, hobby's etc.). To make people more open, the group leader can start with a more personal introduction. You can also ask them to tell about their favorite holiday destination.

15 min	2A. Warming up and health perception
Goal	Introduction and health perception.
Assignment	The participants need to finish a sentence which is raised by the moderator. All participants need to write down their 5 answers on a paper. This is an individually task . It is important that participants write down the first things that pop up in their minds and writing the answers down shouldn't take too long, just in keywords. When everyone has finished writing, there will be a general discussion of the answers. Everybody is asked what their answer was and people can elaborate a bit.
Questions	<p>Part one Please finish my sentence by writing down five things that come to mind when I say: <u>For me health is:</u> 1) ... 2) ... 3) ... 4) ... 5) ...</p> <p>(If some people can only come up with 3 answers that's okay as well).</p> <p>Part two After writing down these five answers: What was the first thing that popped up your mind? Why is that? Could you explain a bit further? Did others think of this as well as first? Why is that? And what other things did you think of? And what about you? Could you explain this a bit further?</p> <p>Make sure everyone had the opportunity to mention their top 5.</p> <p>Moderator writes down the answers on the flip chart, to give all participants an overview.</p>
Expected result	The participants feel comfortable and are warmed up; they are open-minded.
Points of attention	Try to keep the atmosphere as open as possible. Make sure people don't talk to each other when asked to write down their answers. When participants are answering the individual question on health, don't try to help them and start talking about food or fruit or diet. Keep it as general and open as possible. Make sure people realize there is no wrong or right answer.
Materials needed	Paper with a top 5 on it, which they fill out and pencils.
15 min	2B. Health perception and Fruit
Goal	Insight in position of health in general and health perception and fruit.

Assignment	<p>We go deeper into the arguments/top 5 that participants gave during the first task. Probably some (or all) mentioned a well balanced diet or fruit. First we will discuss the importance of health and continue on health aspects of fruit.</p> <p>This is a group discussion, there are no individual assignments.</p>
Questions	<p>We just discussed your answers to my question <i>For me health is...</i>, How much is health "a topic" in your daily life? Do you ever think of it. Or are other things much more important to you? What for example? Do you think of health or your health on a daily basis? Why/Why not? Are there days or moments that you do not want to think about health? Could you explain a bit further? Do you try to act healthy? When and why, why not? Do you have time for that? What ideas do other participants have? Please tell me.</p> <p>(If fruit is not mentioned yet than a short introduction is needed, such as: some people think of fruit and health, this is the topic I would like to hear your ideas about as well.)</p> <p>Is fruit part of a healthy living for you? Why is it or why not? Do you eat fruit or not? How often? On a regular basis? Why/ why not? For those who do not eat fruit, or do not eat it on regular base: what are the main barriers or reasons why you do not eat it more often? Why do you eat fruit? Tell me. What do others think? Are there fruits that are more or less healthy in your opinion or are they all the same? Explain it to me? Please give some examples. What do others think?</p>
Expected result	The level of importance of health in their lives and the role of fruit in it.
Points of attention	Keep it as general and open as possible. Make sure people realize there is no wrong or right answer. Make sure everyone is able to talk.
Materials needed	none

15 min	3. Availability and out of home
Goal	Get insight in availability of fruit. Get insight in aspects variables influencing fruit consumption out of home .
Assignment	Discussion about availability of fruit, and out of home consumption.
Questions	<p>Where do you eat fruit?</p> <p>Fruit is often eaten at home. Could you think of why people do not eat fruit out of home, for example at work, school, on the move etc. Why don't you eat it out of home? Would you like to eat it out of home e.g. home, work, school, university, on the move, etc..)? What needs to be changed to be able to eat fruit (to be filled in with e.g. home, work, school, university, on the move, etc..)?</p> <p>Now, lets try to write down all the reasons why it is hard to eat fruit outside of home and on the other side what might be solutions for these problems.</p> <p>Please mention as much aspects as possible and those issues will be written on the white board.</p> <p>The moderator is asked to consider those issues which are interesting Please ask questions about the aspects which are related to availability, and others like storage, picking fruit, peeling fruit.</p> <p>Please do not consider price or taste here, it is mainly about how to acquire the fruit, e.g. time needed, place etc.</p>
Expected result	An overview of issues which are related to availability (convenience) of fruit.
Points of attention	Make sure everyone is able to talk.
Materials needed	Flip chart

10 min	Optional break
Materials needed	Coffee, tea, water and cookies

15 min	4. Home grown and open market / supermarket
Goal	Get insight in points of improvements for home grown fruit or fruit from open market, local shops or supermarket.
Assignment	We take a closer look to the barriers participants experience related to home grown and open market, local shops supermarket fruit. On the white board we'll make lists of barriers experienced with home grown fruit and fruit bought in the open market or supermarket.
Questions	<p>How do you purchase fruit? How else? Do you buy it or you have your own orchard or you receive it from relatives, friends? <i>If they buy it</i>, Where do you buy it most common? On open markets, in local shops, in supermarkets...?</p> <p>Which way you prefer? Why?</p> <p><i>Facilitator summarizes the discussion:</i> Fruit can be bought in open market, local shops or in supermarket but can also be home grown, from your or your families or friends orchard. Now lets try to summarize good aspects of each channel and problems connected with this channel.</p> <p><i>Ask for each channel (if supermarket is not mentioned than you do not have to consider this):</i> What do you like about this way of purchase? And what you do not like? Which issues do you perceive as a problem? What would you change to make it better?</p> <p>Please write down 4 things which you would change in order to improve the fruits which are home produces, or received as a gift/ bought in open markets or local shops or supermarket. Thus you get two lists, one for home grown and one for supermarket. Facilitator writes them on the white board.</p> <p>Is this the case for all types of fruit or just some varieties? What do you think can be improved and why? What do you think can not be improved and why</p> <p>Have you any idea where the children of the future (2030) will get their fruit from?</p>
Expected result	A list of all purchase channels with their pro's and con's.
Points of attention	Keep it as general and open as possible. Make sure people realize there is no wrong or right answer. They do not have to convince each other. Make sure everyone is able to talk.
Materials needed	Flip chart and tape. Per channel the pro's and cons are written on a flip chart paper.

15 min	5. National versus fruits from other countries
Goal	Gain insight into the perception of country of origin of fruit.
Assignment	An overview of national fruits and its perception compared to fruits from other countries.
Questions	<p>First inventory of the national fruits. (Note: write down on the flip chart).</p> <p>I'd like to know from you. What are typical fruit for your country? Or in other words: What fruit traditionally grows here?</p> <p>If you think of the fruit of your country. Please write down 3 words which pop up in your mind.</p> <p>Then discuss the following questions with all participants:</p> <p>What do you think of the fruit of your country?</p> <p>When you buy fruit do you notice the country of origin?</p> <p>What do you think of fruit of other countries? Which countries/regions do you or don't you like? For what reason?</p> <p>What about the fruits from Western Balkans countries? Which fruit do you think is typical for the countries in Western Balkan?</p> <p>What do you think about the appearance of the fruit of different countries?</p> <p>Can you explain why it is important or not?</p>
Expected result	List of traditional fruits and perceptions of national fruits versus fruits from other countries.
Points of attention	Keep the discussion open, let everyone talk.
Materials needed	Flip chart

20 min	Well balanced diet and knowledge
Goal	To get insight in the knowledge of participants with regard to well balanced diet and fruit.
Assignment	Discussion of a well balanced diet and some propositions.
Questions	<p>What is a well balanced diet according to you? To you consider your own diet as a well balanced diet? Why is it or why is it not. Do you think it is important to eat in accordance with a well-balanced diet? If not mentioned do you think that fruits have a position in a well balanced diet?</p> <p>The idea is to discuss the following propositions: Participants write true or false on a paper. If a proposition is mentioned they get a second to choose true or false. After that a discussion follows. Be aware they do not have to convince each other.</p> <ol style="list-style-type: none"> 1. A medium size apple contains more calories than a medium size banana. 2. Eating fruit is only beneficial for the health when also vegetables are eaten daily. 3. Adding an extra piece of fruit to the diet results in weight loss. 4. It is generally recommended to eat at least 2 portion of fruit each day. 5. It is generally recommended to eat not more than five portions of fruit each day. 6. Scientific evidence in general indicates that a diet with lots of fruit may prevent certain cancers. 7. Scientific evidence in general says that a diet with lots of fruits prevent coronary diseases. 8. Scientific evidence in general says that a diet with lots of fruits prevents sunburns. 9. Scientific evidence in general says that certain fruits prevent digestion problems. 10. Scientific evidence in general says that a diet with lots of fruits helps you to stay alert. 11. In general, one fresh fruit contains more fibres than one slice of brown or fibre-enriched bread. <p>In the discussion about the propositions the participants do not have to convince each other. Please ask them if they know about this and from whom they know about it. And if they trust this sources.</p>
Expected result	Overview of issues which participants are aware of and which source are important.
Points of attention	
Materials needed	Paper either with true or false.

Conclusion

- o Thank every one for there time and input.
- o Tell them they've been very helpful.
- o Ask them if they liked being part of this discussion (small evaluation).
- o If they want you can explain a bit more about the project.
- o Answer questions that people might have.
- o Give them a small present as appreciation.

10. Appendix A

For me health is:

1

2

3

4

5

11. Annex 3 Table presenting perception of balanced diet and reasons

Country	Is your diet balanced				Why is you diet (not) balanced	
	Yes	No	I try	partly	Balanced	Not balanced
BiH rural	2	5	3	1	(boiled) vegetables, fruit, 3 meals/day, meat every day, regular hours, less meat, breakfast, cook daily	Lot of meat, not fruit, sugar, fat, no variety
BiH urban	2	6	2	-	Fruit, cook daily	Finances, no regular meals, too much, lack time (due to work), spicy, lots of meat, habits
Serbia, urban	6	-	-	-	Variety, fresh	

Serbia, rural	-	3	1	-	(orange) juice, takes care of children/family, (fresh) fruit and vegetables, (home) cooked meals, not too much, fruits, vegetables, meat	Skip meals, little time, can't combine with work
Slovenia, urban	2	2	-	1	Habits, sports	Not orderly, time
Slovenia, rural	4	4	1	1	Fruit, vegetables, plan meal, variety	Break rules, no time, too few meals, excessive
Macedonia, urban	3	1	-	3	Fruit, good health, good shape & weight, moderate intake, frequent meals	Little fruits and vegetables, much meat, high caloric food
Macedonia, rural	3	2	-	1	Healthy, slim,	Fatty foods, compulsive eating, sweets, chocolates
Croatia, urban	1	3	2	-	Fruits, certain types of meat and fish, vegetables, variety	Skip meals, student canteens, no vegetables
Croatia, rural	2	3	-	1	Home prepared, variety, eat carefully	Skip meals, no time, other obligations, way of life
Montenegro, urban	2	6	-	-	Eat what organism needs, fruit and vegetables, limited bread	Much meat, little fruits and vegetables, habits, work and duties, lack time, no breakfast, fast food, irregular
Montenegro, rural	2	1	-	1		irregularity, fresh prepared, habits, diversity, price, obligations and work, fast food