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Food based dietary guidelines

in the WHO European Region

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ABSTRACT

An unhealthy diet combined with physical inactivity increase the risk for non-communicable diseases (NCD) enormously. There is a clear need for political commitment to nutrition policies which will help prevent NCD through provision of enough healthy, affordable food, especially fresh fruit and vegetables. Part of this political action should include the translation of nutrient population goals into food-based dietary guidelines at the national level. It is fundamental that the Ministry of Health endorses food-based dietary guidelines that are consistent and easily understood. The aim of this survey was to assess the existence of national, government-endorsed food-based dietary guidelines in Member States of the WHO European Region. The findings of this survey illustrate important discrepancies between sub-regions and from country to country in national food-based dietary guidelines. Further effort will be required in the development of dietary guidelines as well as in the implementation of national nutrition policies.

Keywords

DIET - STANDARDS
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Summary

An unhealthy diet combined with physical inactivity increase the risk for NCD enormously. NCD such as cardiovascular diseases, cancer, hypertension, obesity and type 2 diabetes are increasing within the European Region. There is a clear need for political commitment in developing adequate nutrition policies. These should help prevent NCD through the provision of enough healthy, affordable food, especially fresh fruit and vegetables in addition to the reduction of nutritional deficiencies.

Part of this political action should include the translation of nutrient population goals into food-based dietary guidelines (FBDG) at the national level. It is fundamental that the Ministry of Health endorse FBDG that are consistent and easily understood. Many primary care experts and other health specialists have the opportunity to disseminate information on healthy eating.

FBDG should be adapted to a country's specific needs; ensure that the nutrient needs of the population are covered; and contribute in reducing the risk of cardiovascular diseases. In addition, they should be in accord with public policies that promote food safety and physical activity, a healthy environment and a local food economy.

The aim of this survey was to assess the existence of national, government-endorsed food-based dietary guidelines in Member States of the WHO European Region. Of the 48 participating countries, 25 reported having national, government-endorsed food-based dietary guidelines; 8 reported having national food-based dietary guidelines that were either in preparation and/or not yet endorsed by the government; 6 reported not having food-based dietary guidelines and 9 did not reply to the questionnaire.

The findings of this survey illustrate important discrepancies between sub-regions and from country to country in national food-based dietary guidelines. Further effort will be required in the development of dietary guidelines as well as in the implementation of national nutrition policies.

Introduction

The combination of an unhealthy diet and physical inactivity increases the risk for NCD enormously. NCD such as cardiovascular diseases, cancer, hypertension, obesity and type 2 diabetes are increasing within the European Region. There is a clear need for political commitment in developing adequate nutrition policies. These should help prevent NCD through the provision of enough healthy, affordable food, especially fresh fruit and vegetables in addition to the reduction of nutritional deficiencies.

Part of this political action should include the translation of nutrient population goals into food-based dietary guidelines (FBDG) at the national level. It is fundamental that the Ministry of Health endorse FBDG that are consistent and easily understood. Many primary care experts and other health specialists have the opportunity to disseminate information on healthy eating.

FBDG should be adapted to a country's specific needs; ensure that the nutrient needs of the population are covered; and contribute in reducing the risk of cardiovascular diseases. In addition, they should be in accord with public policies that promote food safety and physical activity, a healthy environment and a local food economy.

Specific recommendations will vary from country to country based on the availability and cultural acceptance of foods. To make their implementation feasible and effective, FBDG must take account of dietary patterns and the prevalence of both deficiency disorders and NCD in each country. Health professionals should review the premature mortality rates, morbidity data and the available data on diet and nutritional status before developing their national FBDG. This will ensure that the recommendations are tailored to correspond with national conditions.

FBDG should also be accompanied by posters or food selection guides. These visual guides should assist users to select a diet that is adequate in nutrients and contains a high level of complex starches and dietary fibre and avoids excessive intakes of fats, salt and added sugars. Guides should reflect a concern for promoting food choices that are consistent with the conservation of national resources, including promoting the concept of "local production for local consumption". A food guide should be culturally inclusive and incorporate foods that are generally available and accessible at a reasonable price. In addition a guide should be based on sound educational principles and be accessible to a wide range of educational levels.

The WHO CINDI (Countrywide Integrated Non-communicable Diseases Intervention) programme aims to decrease morbidity and mortality from the major noncommunicable diseases (NCD) by reducing risk factors like smoking, alcohol abuse and psychosocial stress, unhealthy nutrition and physical inactivity.

The CINDI dietary guide is food-based. It speaks of *food* rather than *nutrients* since people eat and enjoy food - not nutrients. The guide contains and recommends "Twelve steps to healthy eating" (Annex 1), including eating at least 400g of fruit and vegetables daily and reducing fat, salt and sugar intake. It also states that physical activity should be a part of every day life and an easy choice to help maintain body weight.

The objective of this survey was to assess whether countries of the WHO European Region (Table 1) have national, government-endorsed FBDG which include the principles outlined in Annex 1.

Table 1 WHO European Member States

Southeast Europe (SEE)	Baltic countries	Central Asian republics (CAR)	Central and Eastern Europe (CEE)	Western Europe (WE)	Southern Europe (SE)	Commonwealth of Independent States (CIS)	Nordic countries
Albania	Estonia	Kazakhstan ‡	Bulgaria	Austria	Andorra ‡	Azerbaijan ‡	Denmark
Bosnia and Herzegovina	Latvia	Kyrgyz Republic	Czech Republic	Belgium ‡	Greece	Armenia	Finland
Croatia	Lithuania	Tajikistan ‡	Hungary	France	Israel	Belarus ‡	Sweden
Slovenia		Turkmenistan ‡	Poland	Germany	Italy	Georgia ‡	Iceland
Former Yugoslav Republic of Macedonia		Uzbekistan ‡	Romania	Ireland	Malta	Republic of Moldova ‡	Norway
Federal Republic of Yugoslavia			Slovak Republic	Luxembourg	Monaco	Russian Federation	
				Netherlands	Portugal	Ukraine	
				Switzerland	Spain		
				United Kingdom	San Marino		
					Turkey		

No national nutrition counterpart

‡ No reply to questionnaire

The data was collected through a questionnaire based on the CINDI “Twelve steps to healthy eating”. The questionnaire was semi-structured, with “yes” and “no” answers followed by open-ended questions in order to get specific information on recommendations for different food groups in the national FBDG, or to give further comments. Respondents were asked to attach their national FBDG (booklet, poster etc.), if relevant. They were also asked to specify whether or not the FBDG were officially endorsed, and if not, whether a non-official FBDG was available.

Overview of results

The results of the 2002 survey on food-based dietary guidelines (FBDG) are summarised in Table 2. Of the 48 participating countries, 25 reported having national, government-endorsed food-based dietary guidelines; 8 reported having national food-based dietary guidelines that were either in preparation and/or not yet endorsed by the government; 6 reported not having food-based dietary guidelines and 9 did not reply to the questionnaire.

Table 2 Overview of results from the FBDG survey 2002

Country, by sub-region	Yes, government-endorsed FBDG: (25/48)	Yes, but NOT government-endorsed FBDG: (8/48)	No FBDG: (6/48)	No reply to questionnaire: (9/48)
<i>Nordic countries</i>				
Denmark	X			
Finland		X		
Sweden	X			
Iceland	X			
Norway	X			
<i>Western Europe</i>				
Austria		X		
Belgium				X
France			X	
Germany	X			
Ireland	X			
Luxemburg		X		
Netherlands	X			
Switzerland	X			
UK	X			
<i>Southern Europe</i>				
Andorra				X
Greece	X			
Israel	X			
Italy		X		
Malta	X			
Portugal	X			
Spain	X			
Turkey	X			
<i>Central and Eastern Europe</i>				
Bulgaria	X			
Czech Rep		X		
Hungary	X ¹			
Poland	X			

¹ Hungary: FBDG are part of the “For the Healthy Nation Public Health” Programme (2001-2005), which is a government-endorsed Programme.

Country, by sub-region	Yes, government-endorsed FBDG: (25/48)	Yes, but NOT government-endorsed FBDG: (8/48)	No FBDG: (6/48)	No reply to questionnaire: (9/48)
Romania	X			
Slovak Republic	X			
<i>Southeast Europe</i>				
Albania			X	
Bosnia & Herzegovina			X	
Croatia	X			
Slovenia		<i>X (in preparation; meanwhile, using translated CINDI guide)</i>		
Former Yugoslav Republic of Macedonia		X		
Federal Republic of Yugoslavia				<i>No counterpart at the time</i>
<i>Baltic countries</i>				
Estonia	X			
Latvia		X		
Lithuania		X		
<i>Commonwealth of Independent States</i>				
Azerbaijan				X
Armenia	X			
Belarus				X
Georgia	X			
Republic of Moldova				X
Russian Federation			X	
Ukraine	X			
<i>Central Asian republics</i>				
Kazakhstan				X
Kyrgyz Republic			X	
Tajikistan				X
Turkmenistan				X
Uzbekistan				X

Detailed results

The questionnaire asked whether recommendations on the following items were included in the national FBDG, and if so, how the recommendations were quantified:

1. A varied diet, consisting mainly of plant foods
2. Daily intake of bread, grains, rice, potatoes and/or pasta every day
3. Daily intake of fresh and local vegetables and fruits
4. Healthy Body Mass Index (BMI) range and physical activity
5. Low fat intake (total and saturated)
6. Intake of lean meat, poultry, fish and legumes
7. Intake of low fat milk and low fat dairy products
8. Low sugar intake
9. Low salt intake
10. Limited alcohol intake
11. Hygienic preparation of food
12. Exclusive breastfeeding

1. Variety in the diet

The majority of countries reported recommending a balanced diet in the national FBDG. A food pyramid or food plate is often used to help visualize a healthy diet.

Table 3 National FBDG which include a recommendation on a varied diet, consisting mainly of plant foods

Country, by sub-region	Recommendation on a varied diet, consisting mainly of plant foods
<i>Nordic countries</i>	
Denmark	Not included
Finland	Food circle, pyramid, food plate model
Sweden	Included, but not specified
Iceland	Included, but not specified
Norway	Included, but not specified
<i>Western Europe</i>	
Austria	Food groups quantified in portions/d
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Food plate: 7 food groups
Ireland	Food pyramid
Luxemburg	Included: more plant foods, fruit and vegetables, less animal foods and fat
Netherlands	Included, but not specified
Switzerland	Included, but not specified
UK	Yes
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	Yes
Israel	Food pyramid

Country, by sub-region	Recommendation on a varied diet, consisting mainly of plant foods
Italy	Food groups are quantified in standard portions, weight of standard portions in table (<i>FBDG in preparation or waiting for official endorsement</i>)
Malta	Complex carbohydrates > 45% total energy intake; dietary fibre > 30 g/day
Portugal	Importance of varied diet is emphasised but a specific reference to plant foods is not made
Spain	7 food groups in 2 food pyramids put together (prism)
Turkey	It consists of 4 food groups. 1-Milk and milk products 2-3 portions (400-500 cl) 2-Meat, eggs and legumes 2-3 portions (60-90 grams meat) 3-Fresh vegetables and fruits 3-5 portions (600-700 grams) 4-Cereals and cereal product 4-6 portions (150-200 grams)
<i>Central and Eastern Europe</i>	
Bulgaria	It is recommended to consume every day at least one representative food from each food group. The consumption mainly of plant foods is not emphasized because at the moment we have not over-consumption of meat/meat products, milk/milk products and eggs. We have emphasised the consumption of a variable and balanced diet.
Czech Rep	Yes, not quantified
Hungary	5-9 unit/day of cereals (mostly whole grains); 5-9 unit/day of vegetables and fruits; 3-4 unit/day of milk and dairy; 2-3 unit/day of the group of meat, meat products, fish, eggs, soy
Poland	Recommendation of high intake of milk and dairy products and fish.
Romania	Yes
Slovak Republic	Not included
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Yes, but not quantified
Slovenia	Eat a nutritious diet based on a variety of foods originating mainly from plants, rather than mainly from animal origin. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	Yes, should be 50% of daily energy
<i>Baltic countries</i>	
Estonia	Eat a variety of foods and many fruits and vegetables: Amount of plant food should be 2/3 from all food; Vegetables – 3-5 portions daily, one portion is 1-2 dl vegetables (fresh or cooked); Potato – 3-5 portions daily, one portion 1 big boiled potato or 1 dl mashed potato etc; Fruits - 2-4 portions daily, one portion 1 fruit or 2 dl berries, 2 dl fruit juice.
Latvia	Yes, emphasise the importance of plant food <i>(FBDG in preparation or waiting for official endorsement)</i>
Lithuania	Eat variety of food. Food pyramid as illustration.
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	Yes, food plates being prepared in cooperation with UNICEF
Belarus	<i>No reply</i>
Georgia	<i>No reply</i>
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>

Country, by sub-region	Recommendation on a varied diet, consisting mainly of plant foods
Ukraine	290g bread, bakery products; 260g potatoes; 301g vegetables; 192 fruit, berries.
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Minimum food basket: food groups quantified in grams/month
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

2. Breads, grains, potatoes and pasta

Recommendations on the intake of bread, grains, rice and potatoes vary from 2-4 servings/d to 8-10 servings/d.

Table 4 National FBDG which include a recommendation on daily intake of bread, grains, rice, potatoes and/or pasta

Country by sub-region	Recommendation on bread, grains, rice, potatoes and/or pasta
<i>Nordic countries</i>	
Denmark	Yes, but not specified
Finland	Included, but not quantified (food circle, pyramid and plate model)
Sweden	Included, but not quantified
Iceland	8-10 servings/d (1 serving=1slice of bread; 1.5dl cereals; 1dl cooked rice or pasta; 2 small potatoes)
Norway	Included, but not quantified (more whole grain products)
<i>Western Europe</i>	
Austria	5 – 7 slices/d of bread (250 – 350 g), 1 portion/d of rice or pasta (50 – 70 g raw, 220 – 250 g cooked) or 4 – 5 medium sized potatoes (250 – 300 g). 1 – 2 slices of bread could also be replaced through cereals.
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	5-7 slices/d of bread (250-350g) of which 2 slices should be whole grain; 1 portion/d of rice or pasta (50-70g / cooked 220-270g); 1 portion/d of potatoes (4-5 middle sized / 250-300g)
Ireland	6 servings/d or more of food rich in fibre and starch like bread, cereals or potatoes (1serving = 1 bowl breakfast cereal; 1 slice bread; 2 tablespoons cooked pasta or rice; 1 medium potato boiled or baked). Choose high fibre bread and cereals.
Luxemburg	4-5 portions/d (1 serving at each main meal)
Netherlands	Not included
Switzerland	Not included
UK	"Eat lots" recommended for bread, other cereals and potatoes
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	8 servings/d of non-refined cereals and products: whole grain bread, whole grain pasta, brown rice etc, not including potatoes on daily basis. One serving = one slice of bread (25g) = half a cup (i.e. 50-60 g) of cooked rice or pasta

Country by sub-region	Recommendation on bread, grains, rice, potatoes and/or pasta
	= approximately ½ portion as defined in Greek market regulations (in case of mixed dishes)
Israel	Being updated
Italy	2-4 portions/d (<i>FBDG in preparation or waiting for official endorsement</i>)
Malta	Complex carbohydrates > 45% total energy intake; dietary fibre > 30 g/day
Portugal	Increase intake of cereals, potatoes and pulses but not quantified
Spain	6-10 portions/d(1 portion=40-50g rolls; 40-60g bread; 30-40g cereals; 100-150g rice; 100-150 g legumes; 100-150g pasta)
Turkey	4-6 portions/d breads and grains (1 portion=25g bread; 120-150g rice;100-120g legumes)
<i>Central and Eastern Europe</i>	
Czech Rep	3-6 servings/d; 1 serving = 1 slice of bread (60g), 1 cup boiled pasta, rice, cereals (120g)
Hungary	5-9 unit/day of cereals (mostly whole grains)
Poland	5-6 portions/d of cereals and potatoes
Romania	Not included
Slovak Republic	Increase intake of cereals and cereal products (mainly whole grain products), potatoes, quantified in kg/year
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Bread, grains and preferably whole grain products, rice and potatoes. Constitute the base of the dietary pyramid.
Slovenia	Eat bread, grains, pasta, rice or potatoes several times per day. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	About 450g/d
<i>Baltic countries</i>	
Estonia	Eat mostly rye-bread and cereals: Cereals - 6-8 portions daily, one portion 1 slice of bread, 1 dl porridge, pasta, rice, 3 tablespoon of müsli or flakes; Potato – 3-5 portions daily, one portion 1 big boiled potato or 1 dl mashed potato etc.
Latvia	About 500g/d for adults (<i>FBDG in preparation or waiting for official endorsement</i>)
Lithuania	5-11 portions of bread, grains and potatoes
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	250g/d of bread, 20g/d of grains, 50g/d of rice, 250g/d of potatoes, 15g/d of pasta
Belarus	<i>No reply</i>
Georgia	360 g/d bread, 24.6 g/d flour, 41.1 g/d wheat, 11-13.7 g/d rice, 137 g/d potato
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	290g bread; 13.6g grains; 7g rice; 11g pasta; 260g potatoes
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>

Country by sub-region	Recommendation on bread, grains, rice, potatoes and/or pasta
Kyrgyz Republic	Quantified in g/d, kg/month or kg/year
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

3. Vegetables and fruit

National recommendations for fruit and vegetable intake vary considerably throughout the European Region. Several countries provide a total fruit and vegetable intake recommendation without differentiating between the two, from 3-5 portions/d to 5-9 portions/d. Other countries do differentiate between fruit and vegetables in their recommendation.

Table 5 National FBDG which include a recommendation on daily intake of fresh and local vegetables and fruits

Country	Recommendation on fruit and vegetable
<i>Nordic countries</i>	
Denmark	6 servings/d or 600g
Finland	Included, but not quantified (food circle, pyramid and plate model)
Sweden	500g/d
Iceland	"5 a day" 500g/d=3 servings/d of vegetables (potatoes included) and 2 servings/d of fruit
Norway	"5 a day" (potatoes included)
<i>Western Europe</i>	
Austria	At least 2 pieces or portions of fruit (250 – 300 g)daily
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	"5 a day" i.e.at least 5 servings of vegetable and fruit/d
Ireland	4 or more servings / day (1 serving= ½ glass fruit juice; 1 medium fresh fruit; 2 tablespoons cooked vegetables or salad; small bowl homemade vegetable soup; 2 tablespoons cooked or tinned fruit
Luxemburg	3-5 portions/d of vegetables and 2-3 portions/d of fruit
Switzerland	"5 a day"
UK	At least 5 portions/d
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	3 servings fruit/day; 6 servings vegetables/d including "wild greens" One serving = a cup of raw leafy vegetables or half a cup of other vegetables, cooked or chopped (i.e. ~ 100 g of most vegetables)
Israel	Currently being updated
Italy	3-5 portions/d <i>FBDG in preparation or waiting for official endorsement</i>
Malta	Dietary guidelines include ' to eat more fresh fruit and vegetables'
Portugal	Increase fruit and vegetable intake but not quantified
Spain	3-5 portions/d vegetables (200-250g including potatoes) and 2-4 portions/d fruit (150-200g fruit; 100-150g fruit juice)

Country	Recommendation on fruit and vegetable
Turkey	3-5 portions/d
<i>Central and Eastern Europe</i>	
Czech Rep	3-5 servings/d of vegetables, 2-4 servings/d fruit, both preferably fresh (1 serving=100g)
Hungary	5-9 units vegetables and fruit
Poland	5-6 portions/d of total fruit and vegetables, preferably fresh
Slovak Republic	Increase fruit and vegetable intake
<i>Baltic countries</i>	
Estonia	Vegetables – 3-5 portions daily, one portion is 1-2 dl vegetables; Fruits - 2-4 portions daily, one portion 1 fruit or 2 dl berries, 2 dl fruit juice.
Latvia	400g/d of local vegetables, fruit and berries <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	3-5 portions of vegetables and 2-4 portions of fruits
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	5or more portions/d (400g/d)
Slovenia	Eat a variety of vegetables and fruits, preferably fresh and local, several times per day (at least 400 g per day). <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	440g/d
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	Total 500 g/d: 300g/d vegetables and 200g/d fresh fruit
Belarus	<i>No reply</i>
Georgia	Vegetables: 54,8 g/d cabbage, 74-101 g/d tomato, 19.2 g/d carrot, 16.4 g/d sugar-beet, 32.9 g/d onion, 2.8 g/d garlic, 41.1 g/d cucumber, 74.0 g/d green. Fruit: 27.4 g/d grape, 13.7 g/d citrus, 98.6 g/d stone-fruit, 27.4 g/d berries
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	561g/d vegetables and 120g/d fruit
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

4. Body weight and physical activity

Most countries recommend a healthy BMI range of 18.5 - 25. Most of the countries that include physical activity in their FDDG recommend moderate (normal intensity) physical activity for 30 minutes a day, either 3, 4 or 5 times a week.

Table 6 National FBDG which include a recommendation on healthy Body Mass Index range and physical activity

Country	Recommendation on BMI range [kg/m ²]	Recommendation on physical activity
<i>Nordic countries</i>		
Denmark	18.5-24.9	Moderate PA for 30 min/d
Finland	18.5-25	Moderate PA for 30 min/d
Sweden	20-25	4-5 times/week for 30min/each time
Iceland	Not included	Not included
Norway	18.5-24.9	Moderate PA for 30min/d
<i>Western Europe</i>		
Austria	Women: 19-24; men: 20-25	Not included
Belgium	<i>No reply</i>	<i>No reply</i>
France	<i>No FBDG</i>	<i>No FBDG</i>
Germany	Not quantified in FBDG, but included	30min/d walking; cycling; morning gym
Ireland	Not included.	Start with 10min/d for 2 times/week and increase to 30min/d
Luxemburg	Not included, but in other guidelines	Not included, but in other guidelines
Netherlands	18.5-25	30 min/d normal intensity
Switzerland	Not quantified in FBDG, but included	Not included in FBDG, but separate guidelines
UK	Not included, but 20-25 stated in other guidelines	At least 30 min/d moderate physical activity
<i>Southern Europe</i>		
Andorra	<i>No reply</i>	<i>No reply</i>
Greece	20-25	15-30min/d of brisk walking, swimming, dancing, gardening or climbing stairs
Israel	20-25	At least 3 times/week for 20 min/each time
Italy	For 0-18 yrs, the interval of normality, underweight, leanness, overweight and obesity is given only graphically. For >18 yrs, a graph helps each person calculate their own BMI, and judge if it falls in the colour-coded areas corresponding to overweight, obesity, underweight and leanness. The respective cut-off points for these classes are those proposed by WHO. <i>(FBDG in preparation or waiting for official endorsement)</i>	Not included <i>(FBDG in preparation or waiting for official endorsement)</i>
Malta	Not included	Not included
Portugal	20-25	Not included
Spain	Not included	Not included
Turkey	20-25 (18.5-19.9 is acceptable)	30min/d of continuous walking, 5 times/week
<i>Central and Eastern European countries</i>		
Bulgaria	18.5-25	At least 4 times weekly for a minimum 30 minutes moderate activity (brisk walking, etc.)

Country	Recommendation on BMI range [kg/m ²]	Recommendation on physical activity
Czech Republic	Not included	Not included
Hungary	18.5-24.9	60 min/day for children, 30 min/day for adults; generally 70-80 % of the maximal intensity is suggested on the basis of pulse rate (100 % of pulse rate = 220 – years of age)
Poland	18.5-24.9	Guidelines for total population: be physically active. Guidelines addressed to physicians and other health workers: at least 30 minutes of walking daily for all.
Slovak Republic	Not included	Not included
<i>Baltic countries</i>		
Estonia	Eat right amount to be in healthy weight i.e. BMI 20-25	Not included
Latvia	Not quantified; balance food intake with physical activity to maintain desirable weight (<i>FBDG in preparation or waiting for official endorsement</i>)	
Lithuania	18.5-24.9	Daily physical activity, not quantified
<i>Southeast Europe</i>		
Albania	<i>No FBDG</i>	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No reply</i>	<i>No reply</i>
Croatia	18.5-24.9 (acceptable 18-27)	3 times 30-45 minutes a week, or at least 10 minutes / day. Intensity until normal conversation possible.
Slovenia	Maintain BMI between 20 – 25 <i>FBDG in preparation</i>	Moderate levels of PA, preferably daily. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	20-25	Not included
<i>Commonwealth of Independent States</i>		
Azerbaijan	<i>No reply</i>	<i>No reply</i>
Armenia	18.5-25.5	Not included
Belarus	<i>No reply</i>	<i>No reply</i>
Georgia	<i>Not included</i>	<i>Not included</i>
Republic of Moldova	<i>No reply</i>	<i>No reply</i>
Russian Federation	<i>No FBDG</i>	<i>No FBDG</i>
Ukraine	20-27	Daily energy intake in kcal depending on energy expenditures for various types of physical activity (groups of work intensity): Gp I: very light physical activity (mental work); Gp II: light physical activity; Gp III: work of medium physical intensity; Gp IV: hard physical work.
<i>Central Asian republics</i>		
Kazakhstan	<i>No reply</i>	<i>No reply</i>
Kyrgyz Republic	Not included	Not included
Tajikistan	<i>No reply</i>	<i>No reply</i>
Turkmenistan	<i>No reply</i>	<i>No reply</i>
Uzbekistan	<i>No reply</i>	<i>No reply</i>

5. Fat

For the most part, the national recommendations on fat are that less than 30% of daily energy intake come from total fat and less than 10% of daily energy intake come from saturated fat.

Table 7 National FBDG which include a recommendation on daily intake of saturated fat and total fat

Country	Recommendation on total fat	Recommendation on saturated fat
<i>Nordic countries</i>		
Denmark	30%E/d	10% of daily energy intake (including "hard fat", i.e. saturated fat and trans fatty acids)
Finland	< 30 %E	10% of daily energy intake (including "hard fat", i.e. saturated fat and trans fatty acids)
Sweden	≤30%E/d	Ca. 10%E/d
Iceland	25-35%E/d	<15%E/d (including trans fatty acids (hard fat))
Norway	<30%E/d	<10%E/d
<i>Western Europe</i>		
Austria	Max 40g/d	Yes but not quantified
Belgium	<i>No reply</i>	<i>No reply</i>
France	<i>No FBDG</i>	<i>No FBDG</i>
Germany	70-90g/d (mainly of plant origin)	Not included
Ireland	Yes but not quantified	Yes but not quantified
Luxemburg	"Eat less fat", not quantified	"Avoid animal fat"; "use vegetable oil", not quantified
Netherlands	20-40% of daily energy intake	Max. 10% of daily energy intake
Switzerland	Yes but not quantified	Yes but not quantified
UK	"Eat fat sparingly", not quantified (Stated 35%E/d in COMA report)	Not quantified (Stated 10%E/d in COMA report)
<i>Southern Europe</i>		
Andorra	<i>No reply</i>	<i>No reply</i>
Greece	Energy given on type of dietary lipid and not total lipid intake – olive oil recommended as main added lipid Note: Greece discriminates between "fat" and "oils": the term "fat" is used for solid lipids, whereas "oils" refers to liquid ones. In Greece, it is considered particularly important not to use the term <i>fat</i> for oils.	Olive oil should be preferred over other lipids
Israel	<30%E/d	<10%E/d
Italy	1-3 portions/d <i>FBDG in preparation or waiting for official endorsement</i>	7-10% of daily energy intake <i>FBDG in preparation or waiting for official endorsement</i>
Malta	30% of daily energy intake and dietary guidelines specify 'eat less fat'	10% of daily energy intake
Portugal	≤30% of daily energy intake	<10% of daily energy intake
Spain	Use in moderation, not quantified	Not included
Turkey	20-25% of daily energy intake	<10% of daily energy intake
<i>Central and Eastern Europe</i>		
Bulgaria	Maximum 30% of kcal ingested (for children under 10 years up to 32 E%). It is	Less than 10 % of kcal ingested

Country	Recommendation on total fat	Recommendation on saturated fat
	recommended to avoid or use small quantities of fat in cooking, to use sparingly frying, to read labels of foods for fat content, etc.	
Czech Rep	≤30% of daily energy intake	10% of daily energy intake
Hungary	It is suggested: avoid to use fat for food preparation, and decrease take care of spreading, and avoid the visible fat rich foods.	Decrease saturated fat sources (animal origin) – no energy percentage is given
Poland	Guidelines for total population: limit total fat intake to 2 portions/d (10 g/ portion). Guidelines addressed to physicians and other health workers: limit total fat intake to 25-30% of energy.	Not quantified the percent of energy intake from saturated fat in Polish dietary guidelines. They only contain suggestion to limit animal fat intake and to replace animal fat by vegetable oil.
Romania	20-30% of daily energy intake	15% of daily energy intake
Slovak Republic	Up to 30% of daily energy intake, preferably of plant origin. Increase intake of fish and poultry. Choose low-fat foods. Reduce fat intake by reducing fatty meat, butter, margarine, eggs, cream, pork fat, cheese with high fat content etc.	Up to 10% of daily energy intake. Decrease saturated fat sources (animal origin).
<i>Southeast Europe</i>		
Albania	<i>No FBDG</i>	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>	<i>No FBDG</i>
Croatia	Control fat intake to about 30% of daily energy intake, preferably of plant origin	10% of daily energy intake
Slovenia	Control fat intake (not more than 30 % of daily energy) <i>FBDG in preparation</i>	Replace most saturated fats with unsaturated vegetable oils or soft margarines. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	Max 22% of daily energy intake	Max 10% of daily energy intake
<i>Baltic countries</i>		
Estonia	Choose low-fat foods, preferably healthy cooking. Added fat –3-5 portions daily, one portion is 1 teaspoon of margarine, oil or butter, 2 teaspoons of low-fat margarine.	Choose low-fat foods, preferably healthy cooking. Added fat –3-5 portions daily, one portion is 1 teaspoon of margarine, oil or butter, 2 teaspoons of low-fat margarine.
Latvia	Reduce fat intake by reducing fatty meat, butter and margarine intake and reduce fat used in food preparation. <i>FBDG in preparation or waiting for official endorsement</i>	Not included <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	Control fat intake (not more than 30% of daily energy intake)	Replace animal fats with vegetable oils
<i>Commonwealth of Independent States</i>		
Azerbaijan	<i>No reply</i>	<i>No reply</i>
Armenia	27% of daily energy intake	11% of daily energy intake
Belarus	<i>No reply</i>	<i>No reply</i>
Georgia	11 g/d butter, 16.4 g/d oil, 5.5 g/d margarine	<i>Not included</i>
Republic of Moldova	<i>No reply</i>	<i>No reply</i>
Russian Federation	<i>No FBDG</i>	<i>No FBDG</i>
Ukraine	55g/d	25 g/d or 8% of daily energy intake

Country	Recommendation on total fat	Recommendation on saturated fat
<i>Central Asian republics</i>		
Kazakhstan	<i>No reply</i>	<i>No reply</i>
Kyrgyz Republic	Not included	Not included
Tajikistan	<i>No reply</i>	<i>No reply</i>
Turkmenistan	<i>No reply</i>	<i>No reply</i>
Uzbekistan	<i>No reply</i>	<i>No reply</i>

6. Salt

The national recommendations on salt intake range from 5-8g per day. Several countries only recommend a limited salt intake but do not quantify this recommendation.

Table 8 National FBDG which include a recommendation on daily intake of salt

Country	Recommendation for salt
<i>Nordic countries</i>	
Denmark	5g/d
Finland	<5g/d
Sweden	<5g/d
Iceland	8g/d
Norway	5g/d
<i>Western Europe</i>	
Austria	Yes but not quantified
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Moderate salt intake (should be iodised); not quantified
Ireland	"Limit intake", not quantified
Luxemburg	Moderate amounts, should be iodised, not quantified.
Netherlands	Max. 9g/d
Switzerland	Moderate intake, not quantified
UK	No but 6g/d stated in COMA report ²
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	Avoid salt and substitute with herbs
Israel	Yes but not quantified
Italy	<6g/d <i>FBDG in preparation or waiting for official endorsement</i>
Malta	<5-8g/d
Portugal	<6g/d
Spain	Not included
Turkey	5g/d (1 teaspoon), iodized

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Country	Recommendation for salt
<i>Central and Eastern Europe</i>	
Bulgaria	Max. 6g/d
Czech Rep	Max 6g/d iodised
Hungary	Not quantified, only suggested: "prepare your foods without salt or with a small amount, and choose lo salt foods. Avoid foods with very high salt content"
Poland	1 teaspoon/d
Romania	Not included
Slovak Republic	Limit salt intake; not quantified
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	6g/d or 1 teaspoon/d
Slovenia	Choose low salt diet. Total salt intake should not be more than one teaspoon (6 grams) per day, including the salt in bread, processed, cured and preserved foods. (Universal salt iodisation where iodine deficiency is endemic). <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	6g/d
Federal Republic of Yugoslavia	<i>No counterpart</i>
<i>Baltic countries</i>	
Estonia	Maximum 5g/day
Latvia	Reduce salt and foods containing salt <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	Choose a low-salt diet (total salt intake – not more than one teaspoon per day)
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	6g/d
Belarus	<i>No reply</i>
Georgia	6 g/d
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	6g/d
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

7. Sugar

Most countries with a recommendation on sugar intake suggest that less than 10% daily energy intake come from sugar. Several countries only recommend a limited sugar intake but do not quantify this recommendation.

Table 9 National FBDG which include a recommendation on daily intake of sugar

Country	Recommendation on sugar
<i>Nordic countries</i>	
Denmark	For adults with low energy intake, <8MJ/d ³ , and for children, <10% E/d ⁴
Finland	<10% E/d
Sweden	<10%E/d from refined sugar, and for persons with low E ⁵ intake, <8MJ/d
Iceland	<10%E/d
Norway	<10%E/d
<i>Western Europe</i>	
Austria	"little portions", not quantified
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Moderate intake, food or beverages containing sugar should be consumed only occasionally
Ireland	"Limit intake", not quantified
Luxemburg	Not included
Netherlands	Not included
Switzerland	Moderate intake, not quantified
UK	"Eat sugar sparingly", not quantified
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	One serving of traditional Greek desserts every other day (Greek desserts are prepared with olive oil, a multitude of nuts, fruits and flour)
Israel	Yes but not quantified
Italy	15% of daily energy intake, but obscure guideline: does not distinguish between added refined sugars and intrinsic simple carbohydrates; only generic invitation to control sugary foods intake. <i>FBDG in preparation or waiting for official endorsement</i>
Malta	<10% of daily energy intake
Portugal	< 20-30g/d of added sugar
Spain	Use in moderation, not quantified
Turkey	9-10% total energy: 40 and 30 grams for men and women respectively.
<i>Central and Eastern Europe</i>	
Bulgaria	"Use sugar in moderation" but not further quantified. It is recommended to avoid or reduce the consumption of sugar and sugary foods, to use instead them fruits, to limit soft drinks and instead to drink mineral water, natural fruit juices etc.
Czech Rep	1-3teaspoons/d (<15 g/d)

³ MJ/d = Mega Joules per day

⁴ E/d = Energy per day

⁵ E = Energy

Country	Recommendation on sugar
Hungary	Not quantified, only suggested: "decrease regular consumption of foods and drinks with high sugar content"
Poland	Not specified
Romania	Not included
Slovak Republic	Limit sugar intake; not quantified
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Yes, not quantified
Slovenia	Select foods which are low in sugar and eat refined sugar sparingly, limiting the frequency of sugary drinks and sweets. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	10% of daily energy intake
Federal Republic of Yugoslavia	<i>No counterpart</i>
<i>Baltic countries</i>	
Estonia	Limit sweets and soft drinks; Sugar, confectionery - 2-4 portions daily , one portion is 2 teaspoon sugar, honey or jam, 2 pieces of cakes, 10g of chocolate, 150 g soft-drink
Latvia	Reduce sugar and foods containing sugar <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	Choose foods low in sugar, limit intake of refined sugar, sugary drinks and sweets
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	8.2% of daily energy intake (50 g/d)
Belarus	<i>No reply</i>
Georgia	50-100 g/d
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	40g/d
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

8. Lean meat, poultry, fish and legumes

National recommendations on meat, poultry, fish and legumes vary considerably across the Region as do the definitions of portions and servings.

Table 10 National FBDG which include a recommendation on daily intake of lean meat, poultry, fish and legumes

Country	Recommendation on lean meat, poultry, fish and legumes
<i>Nordic countries</i>	
Denmark	Fish: 1-2 servings/d (or 200-300g/week)
Finland	Yes but not quantified
Sweden	Not specified
Iceland	1-2 servings/d (1 serving=100g)
Norway	Yes but not quantified
<i>Western Europe</i>	
Austria	1 – 2 portions (150 g)/weekly of fish, not more than 2 – 3 times per week meat (150 g/portion max.) and sausages (50 g/portion max), 3 eggs/week max.
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	<300-600g of meat/week, max 3 eggs/week, 1portion of seafood/week
Ireland	2 servings/d of meat, fish, eggs or beans, (3 servings during pregnancy)
Luxemburg	2-3 portions/d, not more than 1 serving/meal
Switzerland	Lean meat and fish, not quantified
UK	Eat moderate amounts and choose lower fat, not quantified
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	Fish and seafood could substitute meat and eggs. Poultry is much preferred over red meat, and eggs, including those used for cooking or baking. In this context the recommended amounts are: 5-6 servings/ week fish; 4 servings/week poultry; 3-4 servings/week olives, pulses and nuts; 3 servings/week eggs; 4 servings/month red meat
Israel	Being updated
Italy	1-2 portions/d <i>FBDG in preparation or waiting for official endorsement</i>
Malta	Not quantified but guidelines advise consumption of lean meat, fish & poultry
Portugal	Increase fish and pulses, prefer lean meat, not quantified
Spain	2-3 portions/d (1 portion= 100-150g meat or 100-150g fish; 50g eggs)
Turkey	For children, adolescents: 2 servings For pregnant and lactating women : 3 servings
<i>Central and Eastern Europe</i>	
Bulgaria	Meat quantified in grams/d and legumes in portions/week
Czech Rep	1-3 servings/d (1 serving= 80g)
Hungary	2-3 unit/day of the group of meat, meat products, fish, eggs, soy; Marine fish at least once/week
Poland	1-2 portions/d
Slovak Republic	Lean meat, preferably poultry, consume fish + legumes at least once/week, not quantified
<i>Baltic countries</i>	

Country	Recommendation on lean meat, poultry, fish and legumes
Estonia	Eat mostly fish and poultry; choose low-fat foods, preferably healthy cooking. Fish is recommended 2-3 times per week. Meat-fish-eggs -2-4 portions daily, one portion is 50g low-fat meat, 2 small sausages (wiener), 3 slices of sausage, 50g pâté, 50g fish (fillet), 25g canned fish, 1 egg (2 eggs per week), 300g mushrooms
Latvia	Yes, not quantified <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	Use poultry, fish and beans instead of fatty meat
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Yes, not quantified
Slovenia	Replace fatty meat and meat products with beans, legumes, lentils, fish, poultry or lean meat. <i>FBDG in preparation</i>
Former Yugoslav Rep. of Former Yugoslav Republic of Macedonia	Max. 100g meat/d
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	100g meat or poultry/d; 30g of fish
Belarus	<i>No reply</i>
Georgia	Meat: 29-33 g/d beef, 32.9 g/d pork, 13.7 g/d mutton, 32.9 g/d poultry, 12.8-15 g/d fish; Legumes: 32.9 g/d lablab
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	10g/d poultry, 20g/d fish, 20g/d lean meat (rabbit, beef), 5g/d legumes
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

9. Milk and dairy products

Recommendations on milk and dairy products are variable from country to country, with some countries including low fat milk and dairy products, other including specific dairy products.

Table 11 National FBDG which include a recommendation on daily intake of low fat milk and dairy products

Country	Recommendation on low fat milk and dairy products
<i>Nordic countries</i>	
Denmark	500g/d low fat milk products; 1 slice/d of low fat cheese
Finland	Low fat/fat free dairy, not quantified
Sweden	0.5 l/d of milk, partly from cheese
Iceland	2-3 servings/d (1 servings=2dl milk or dairy; 25g cheese)
Norway	Yes but not quantified
<i>Western Europe</i>	
Austria	0,25 l/d of low-fat milk, 3 slices/d Cheese (30 g/slice)
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	General recommendation to prefer low fat milk and dairy products
Ireland	3 servings/d of low fat milk, cheese or yoghurt (1 serving= 1/3 pint milk; 1 carton yoghurt, 1oz Cheddar, Edam...)
Luxemburg	Max 2-3 portions/d of low fat milk or dairy or 500 ml milk/d
Switzerland	Choose low fat milk, not quantified
UK	Eat moderate amounts and choose lower fat, not quantified
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	2 servings/day, in the form of cheese, traditional yoghurt and milk. No specific recommendation on low fat milk and products.
Israel	Being updated
Italy	No mention is made of quantity of low fat milk, the indication being for the whole "Milk, yoghurt, dairy products 1-2 portions/day". Mention is made of being generally preferable to choose a low-fat milk, and cheeses with lesser fat content. <i>FBDG in preparation or waiting for official endorsement</i>
Malta	Low fat milk, not quantified
Portugal	5-6 dL for child and adolescents; 5 dL for adults; 7.5 dL for pregnant and post-menopausal women and older people; 1L during lactation (whole or low-fat for child and adolescents; low-fat milk for the other people)
Spain	2-3 portions/d (1 portion=200-250ml milk or 125ml yoghurt or 30-40g cheese; 60g fresh cheese)
Turkey	2-3 portions/day (prefer low fat milk)
<i>Central and Eastern Europe</i>	
Bulgaria	Quantified in cups and millilitres for milk
Czech Rep	2-3 servings/d (1 servings= 300mg Ca ²⁺ =300ml milk or 200ml yoghurt or 55g cheese); low fat milk recommended for children over 5 years and adults.
Hungary	3-4 unit/day of milk and dairy (0.5l milk/d)
Poland	3-4 portions/d
Slovak Republic	Low fat dairy products, not quantified
<i>Baltic countries</i>	

Country	Recommendation on low fat milk and dairy products
Estonia	Choose low-fat milk and milk products, prefer healthy cooking; Dairy -2-4 portions daily, one portion is 2 dl milk, yoghurt, kefir; 50g 10% cream, 100g low-fat curd; 50g curd cream, 50g ice-cream, 20g cheese
Latvia	500-750 mL milk and fermented milk, and low fat milk. <i>FBDG in preparation or waiting for official endorsement</i>
Lithuania	Choose low-fat milk and milk products
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Yes, not quantified
Slovenia	Use low fat milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt. <i>FBDG in preparation</i>
Former Yugoslav Rep. of Former Yugoslav Republic of Macedonia	Not included
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	Total 235 g/d: 200g milk and 35 g of dairy products
Belarus	<i>No reply</i>
Georgia	328.8 l/d milk, 11 g/d butter, 13.7 g/d cottage cheese, 8.2 g/d sour cream, 24.7 g/d cheese
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	150g/d Low fat milk and kefir, 20g/d curds
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

10. Alcohol

Recommendations on alcohol intake vary in quantity as well as in quantification (i.e. measured by % of daily energy intake; dl/d or g/d; or units) and often differ for men and women. A number of countries suggest a limited alcohol intake but do not quantify this recommendation.

Table 12 National FBDG which include a recommendation on daily intake of alcohol

Country, by sub-region	Recommendation on alcohol
<i>Nordic countries</i>	
Denmark	<5% of daily energy intake:<14 drinks/week(women), <21 drinks/week (men)
Finland	4-5 %E; 15g/day (women), 20g/day (men), pregnant women should refrain from alcohol
Sweden	≤5% of daily energy intake: 15g/d (women), 20g/d (men); pregnant women, children and teenagers should refrain from drinking alcohol.
Iceland	Not included
Norway	Max 5% of daily energy intake
<i>Western Europe</i>	
Austria	Not quantified in guidelines, but generally limited intake
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Men: 20g/d (=0.5 l beer or 0.25l wine or 0.06l spirits); Women: half as much
Ireland	Not quantified in FBDG, limited intake
Luxemburg	Not included
Netherlands	2-3 drinks/d, but not every day
Switzerland	Yes but not quantified
UK	3-4 units/d for men, 2-3 units/d for women
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	Drink wine in moderation (for adults)
Israel	Not included, "alcohol consumption not a public health problem in Israel"
Italy	Wine: 450ml/day for men and 350ml/day for women; 0.6g alcohol/kg body weight/d
Malta	<2units/d
Portugal	<4dl/d wine or alcohol equivalent for men; <2dl/d wine or alcohol equivalent for women
Spain	Not included
Turkey	Not recommended, but if a person drinks, 10g/d
<i>Central and Eastern Europe</i>	
Bulgaria	It is quantified as grams absolute alcohol (not more than 20 g per day) and it is presented the quantity of beer, wine and spirits containing this quantity.
Czech Rep	Max. 20-30g/d, max. 3 times/week (men and women), at least without alcohol
Hungary	If you do not drink, do not start, if you drink limit 1 or 2 unit/day (women/men)
Poland	There is not quantified level of alcohol intake in Polish dietary guidelines. Only guidelines addressed to physicians and other workers of health service contain suggestion to limit alcohol intake and to eliminate alcohol from diet of pregnant women and children and adolescents up to 20 years.
Romania	Not included
Slovak Republic	Limit alcohol intake, but not quantified

Country, by sub-region	Recommendation on alcohol
<i>Baltic countries</i>	
Estonia	If you drink alcohol, do it in moderation. Moderate consumption is 2 portions for men and 1 portion for women. One portion is 330 ml beer, 120 ml wine, 40 ml strong alcohol. (Portion: 10-12g pure alcohol). Pregnant and lactating women should not consume alcohol.
Latvia	Max. 0.5l/d of beer; 0.25l/d of wine; 0.06l/d of spirits
Lithuania	If you drink, not more than 2 drinks/day (one drink – 10g of alcohol)
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	If you drink, drink in moderation, not more than 2 drinks or 20g alcohol/day
Slovenia	If consumed, limit alcohol intake to no more than 2 drinks (each containing 10 grams of alcohol) per day. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	20g/d
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	Not included
Belarus	<i>No reply</i>
Georgia	33 dl/d
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	8g/d
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

11. Food preparation

Most countries do not include recommendations for hygienic food preparation in their national FBDG.

Table 13 National FBDG which include a recommendation on hygienic food preparation

Country, by sub-region	Recommendation on hygienic food preparation
<i>Nordic countries</i>	
Denmark	Thorough cooking, cooling and prevention of cross-contamination between raw and ready to eat foods
Finland	No included
Sweden	Not included in FBDG, but separate guidelines
Iceland	Not included
Norway	Not included
<i>Western Europe</i>	
Austria	Not included
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Included, proposals to store, prepare and boil food in the right way, in addition separate guidelines
Ireland	Not included in FBDG, but in separate guidelines
Luxemburg	Included, very general recommendations
Netherlands	Included, not specified
Switzerland	Included, (use fresh food, proposals to prepare food)
UK	Not included in FBDG, but separate guidelines
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	Not included
Israel	Not included in FBDG, but separate guidelines
Italy	Not included
Malta	Not included
Portugal	Not included
Spain	Not included
Turkey	Not included, other materials deal with this issue
<i>Central and Eastern Europe</i>	
Bulgaria	There is a guideline how to prevent food born bacterial diseases. It includes hygiene recommendations for storage and cooking of foods, for personal hygiene and basic requirements for safe preservation of foods (in Bulgaria self-producing of preserved foods is wide spread).
Czech Rep	Not included
Hungary	There is a chapter with basic knowledge of food safety in the kitchen.
Poland	Rules of hygienic preparation of food are included to many other publications of National Food and Nutrition Institute. They are addressed especially to mass catering workers, but also to individuals.
Romania	Norms for hygiene in production, preparation, storage, transportation, selling of foodstuffs
Slovak Republic	Not included

Country, by sub-region	Recommendation on hygienic food preparation
<i>Baltic countries</i>	
Estonia	Not included
Latvia	Recommendation to pay attention on the safety and quality of home made food
Lithuania	Follow rules of hygienic preparation of food
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Yes, no further details
Slovenia	Prepare food in a safe and hygienic way. Steam, bake, boil or microwave to help reduce the amount of added fats, oils, salt and sugars. Recommendations on alcohol intake in Slovenia are harmonised with WHO recommendations, one unit per day for women and two units per day for men, not more than 7 (women) or 14 units (men) per week and not more than 4 (women) or 6 units (men) units at one occasion. One unit is 2,5 dl of beer or 1 dl of wine or 0,3 dl of strong drink. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	Yes, no further details
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	10 golden rules of safe prep of food recommended by WHO
Belarus	<i>No reply</i>
Georgia	Not included
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	Careful cooking and heat treatment of meat, fish, vegetable dishes
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Not included
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

12. Exclusive breastfeeding

Fifteen countries recommend exclusive breastfeeding for 6 months, five countries for 4-6 months and one country for 4 months. Several countries do not include exclusive breastfeeding recommendations in their national FBDG but have separate guidelines, and several countries are reconsidering their recommendations based on the latest WHO resolution on exclusive breastfeeding until 6 months⁶.

Table 14 National FBDG which include a recommendation on breastfeeding

Country by sub-region	Recommendation on breastfeeding?
<i>Nordic countries</i>	
Denmark	4-6 months
Finland	4-6 months
Sweden	4-6 months
Iceland	4 months, being revised
Norway	Up to 6 th month
<i>Western Europe</i>	
Austria	Not included in FBDG, but separate guidelines (6 months)
Belgium	<i>No reply</i>
France	<i>No FBDG</i>
Germany	Not included in FBDG; but in separate guidelines (4-6 months)
Ireland	Not included in FBDG, but separate guidelines
Luxemburg	4-6 months (will probably change to 6 months)
Netherlands	6 months, if specific conditions then 4-6 months advised
Switzerland	Not included in FBDG, but separate guidelines
UK	Under review due to WHO resolution
<i>Southern Europe</i>	
Andorra	<i>No reply</i>
Greece	No, but separate guidelines
Israel	Until end of 6 th month, and complementary feeding from 7 th months on
Italy	Not included in FBDG
Malta	Not included in FBDG, but a separate policy is in effect (2000) which states exclusive breast feeding for at least first 6 months of life.
Portugal	At least 6 months, but no reference to <i>exclusive</i> breastfeeding
Spain	Not included
Turkey	6 months
<i>Central and Eastern Europe</i>	
Bulgaria	There are special guidelines of Ministry of Health concerning breastfeeding and complementary feeding of infants published in 2000. There are not in consistence with the WHO/UNICEF recommendations. It is recommended to give boiled water still in the first month of life and to introduce fruit juices in the second month of life.
Czech Rep	6 months
Hungary	Not included
Poland	Exclusive breastfeeding is not included to Polish dietary guidelines, because they contain

⁶ World Health Assembly resolution WHA54.2, 18 May 2001

Country by sub-region	Recommendation on breastfeeding?
<i>Nordic countries</i>	
	recommendations for children above 1 year. However in Poland exclusive breastfeeding is strongly promoted by Ministry of Health, Mother and Child Research Institute and National Food and Nutrition Institute and others. Exclusive breastfeeding is recommended during first 6 month of life.
Romania	Minimum 6 months
Slovak Republic	Unofficial but well accepted recommendation of 4-6 months exclusive breastfeeding
<i>Baltic countries</i>	
Estonia	Not included
Latvia	Exclusive breastfeeding for 6 months
Lithuania	Exclusive breastfeeding for 6 months
<i>Southeast Europe</i>	
Albania	<i>No FBDG</i>
Bosnia & Herzegovina	<i>No FBDG</i>
Croatia	Exclusive breastfeeding for 6 months
Slovenia	Promote exclusive breastfeeding for about 6 months and recommend the introduction of appropriate foods at correct intervals during the first years of life. <i>FBDG in preparation</i>
Former Yugoslav Republic of Macedonia	6 months
<i>Commonwealth of Independent States</i>	
Azerbaijan	<i>No reply</i>
Armenia	6 months
Belarus	<i>No reply</i>
Georgia	6 months
Republic of Moldova	<i>No reply</i>
Russian Federation	<i>No FBDG</i>
Ukraine	6 months
<i>Central Asian republics</i>	
Kazakhstan	<i>No reply</i>
Kyrgyz Republic	Up to 6th months
Tajikistan	<i>No reply</i>
Turkmenistan	<i>No reply</i>
Uzbekistan	<i>No reply</i>

Conclusions and recommendations

The WHO Regional Office for Europe is committed to encouraging and supporting countries to develop and implement their own food-based dietary guidelines. Developing a national dietary guide is an important part of creating nutrition policies and disseminating consistent information about a healthy diet and lifestyle. A set of consistent dietary guidelines should help the population and the health professionals to achieve a better health status.

Of the countries that have a national FBDG (either officially endorsed or not), most included information similar to that put forth in the “Twelve CINDI steps to healthy eating” (Annex 1). However, quantification of portions and sizes is often unclear and difficult to interpret. In contrast, quantification by grams and decilitres can be easy to understand and reduces the risk of misunderstanding a dietary recommendation.

Dietary guidelines should be evaluated in terms not only of their nutrient content, but also of the environmental costs of implementing the recommended action: the cost of food production, processing packaging, transport, storage and marketing. Horticultural sustainability should be promoted through emphasizing the role of locally grown vegetables and fruits. The aim should be to support food systems that require less energy for transport and preserve the rural countryside. Most European Member States do not focus on food security and sustainability e.g., locally grown fruit and vegetables are rarely recommended. The closer food is grown to where it is consumed, the shorter is its storage, transport and finally the loss of nutrients. This is especially true for vegetables and fruit. The average intake of fruit and vegetables in Europe is too low. This can only be improved if the availability, affordability of and access to vegetables and fruit are improved.

Recommendations to consume a varied diet, mainly from plants, are included in most national dietary guidelines. It is important to eat as wide a variety of foods as possible in order to extend the variety of nutrients eaten. Plant foods contain many biologically active components or metabolites with a strong protective role against disease, especially noncommunicable diseases. FBDG are designed to ensure optimum intake of nutrients thus it is important to highlight the importance of consuming a varied diet, consisting mainly of plant food, and at least 400g of fruit and vegetable every day.

Nine countries did not include a recommendation on body mass index range and 11 countries did not include a recommendation on physical activity in their national FBDG. Healthy weight maintenance is achieved by choosing a nutritious diet balanced by daily physical activity. Around half of the adults in Europe are overweight (BMI > 25). Overweight people should try to lose weight and avoid becoming obese. Obesity (BMI \geq 30) is connected with type 2 diabetes, hypertension, cardiovascular disease and cancer. In order to support the maintenance of body weight in the population, recommendations for daily physical activity and BMI range should be included in national FBDG. Moderate physical activity should be made an easy choice and part of every day life. More national policies are needed to make regular daily physical activity an easy option (such as the creation of urban cycle paths).

Hygienic food preparation and storage is an important issue and should form part of the national dietary guidelines. Most countries do not include food hygiene in their national FBDG. Food should be handled and prepared in ways that limit contamination, while preserving nutrient quality. Food poisoning occurs most often in the home. Also, more guidance on different ways of preparing food (steaming and boiling vegetables, low fat cooking etc.) may be needed in some countries. For example, vegetables can have an unpleasant taste if cooked too long or without spices or herbs. It would therefore be reasonable to recommend different ways of food preparation in the national FBDG.

The benefits of breastfeeding for both women and children are well known. Even though the target group for the guidelines are adults, the importance of breastfeeding should be integrated in national FBDG so that it becomes an accepted norm in society. Additionally the positive effects of lactation on maternal and infant health make it fundamental to improving public health⁷.

When developing FBDG, national eating patterns must be considered. They are different in each country and culture, and these have to be understood before helping to create a demand for healthy and culturally accepted food. It will be almost impossible to convince people to eat recommended foods if these are not accepted as part of the daily diet.

⁷ WHO Global strategy for infant and young child feeding. WHO Geneva. 2003

Annex 1: Twelve steps to healthy eating⁸

1. Eat a nutritious diet based on a variety of foods originating mainly from plants, rather than animals.
2. Eat bread, grains, pasta, rice or potatoes several times a day
3. Eat a variety of vegetables and fruits, preferably fresh and local, several times per day (at least 400g per day)
4. Maintain a body weight between the recommended limits (a BMI⁹ of 20-25) by taking moderate levels of physical activity, preferably daily.
5. Control fat intake (not more than 30% of daily energy) and replace most saturated fats with unsaturated vegetable oils or soft margarines.
6. Replace fatty meat and meat products with beans, legumes, lentils, fish, poultry or lean meat.
7. Use milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt.
8. Select foods that are low in sugar, and eat refined sugar sparingly, limiting the frequency of sugary drinks and sweets.
9. Choose a low-salt diet. Total salt intake should not be more than one teaspoon (6g) per day, including the salt in bread and processed, cured and preserved foods. (Salt iodisation should be universal where iodine deficiency is endemic.)
10. If alcohol is consumed, limit intake to no more than 2 drinks (each containing 10g of alcohol) per day.
11. Prepare food in a safe and hygienic way. Steam, bake, boil or microwave to help reduce the amount of added fat.
12. Promote exclusive breastfeeding and the introduction of safe and adequate complementary foods from the age of 6 months while breastfeeding continues during the first years of life.

⁸ CINDI Dietary Guide, WHO Regional Office for Europe, EUR/00/5018028. 2000

⁹ BMI (Body Mass Index) is derived from a person's weight in Kg, divided by height in m². The recommended levels are adapted from the global WHO recommendation of 18.5-24.9 as a normal BMI.

Annex 2: The Food based dietary guideline survey 2002 questionnaire

Name of country _____ Date _____

1. Does your country have national, government-endorsed food-based dietary guidelines?

Yes

No

2. If yes, do they include the following issues?

a) A varied diet, consisting mainly of plant foods

Yes No

Please specify how this is quantified (servings/ portions/
grams/ other units of measurement).

b) Daily intake of bread, grains, rice, potatoes and/or pasta every day

Yes No

Please specify how this is quantified (servings/ portions/
grams/ other units of measurement).

c) Daily intake of fresh and local vegetables and fruits

Yes No

Please specify how this is quantified (servings/ portions/
grams/ other units of measurement).

d) Healthy Body Mass Index (BMI) range and physical activity

Yes No

- (i) Please specify the BMI (kg/m^2) range recommended
(ii) Please specify the units of measurement for physical activity in terms of time
(minutes/hours etc.) and/or intensity.

e) Low fat intake

(i) Low total fat intake,

Yes No

If yes, please specify how this quantified.

(ii) Low saturated fat intake

Yes No

If yes, please specify how this is quantified (% of energy intake).

f) Intake of lean meat, poultry, fish and legumes

Yes No

If yes, please specify how this is quantified (servings/ portions/ grams/ other units of measurement).

g) Intake of low fat milk and low fat dairy products

Yes No

If yes, please specify how this is quantified (servings/ grams/ millilitres).

h) Low sugar intake

Yes No

If yes, please specify how this is quantified (grams/teaspoons).

i) Low salt intake

Yes No

If yes, please specify how this is quantified (grams/ teaspoons).

j) Limited alcohol intake

Yes No

If yes, please specify how this is quantified (number of drinks/ litres/ millilitres/ grams)

k) Hygienic preparation of food

Yes No

l) Exclusive breastfeeding

Yes No

If yes, please specify the time period recommended (i.e. months).
