

# Nutrition, Physical Activity and Obesity

## The former Yugoslav Republic of Macedonia



This is one of the 53 country profiles covering developments in nutrition, physical activity and obesity in the WHO European Region. The full set of individual profiles and an overview report including methodology and summary can be downloaded from the WHO Regional Office for Europe web site: <http://www.euro.who.int/en/nutrition-country-profiles>.

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### DEMOGRAPHIC DATA

Total population	2 061 000
Median age (years)	35.9
Life expectancy at birth (years) female   male	77.1   73.0
GDP per capita (US\$)	4434.5
GDP spent on health (%)	7.1

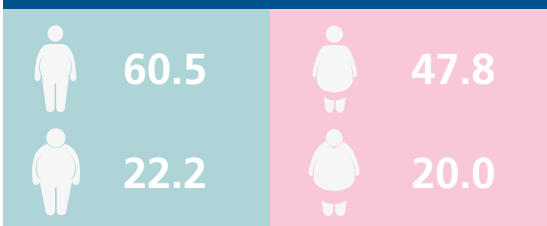
## Monitoring and surveillance

### Overweight and obesity in three age groups

#### Adults (20 years and over)

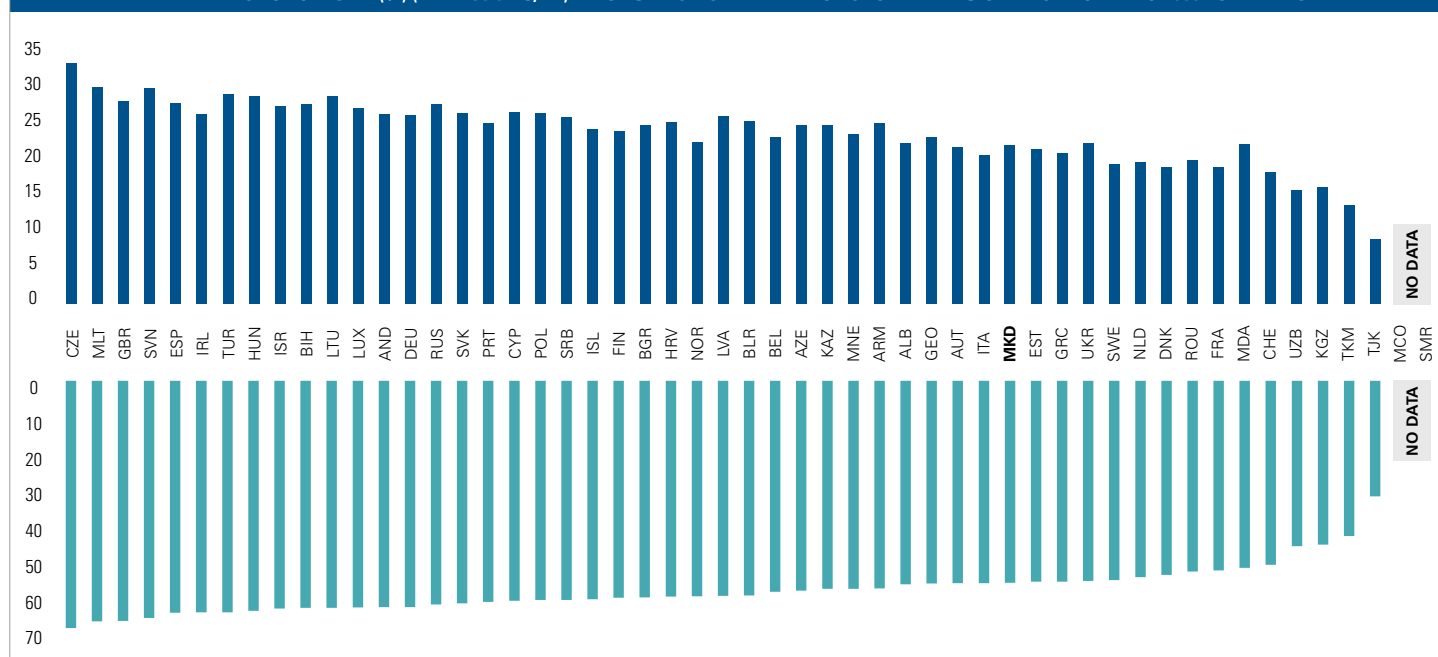
Intercountry comparable overweight and obesity estimates from 2008 (1) show that 54.0% of the adult population ( $\geq 20$  years old) in the former Yugoslav Republic of Macedonia were overweight and 21.1% were obese. The prevalence of overweight was higher among men (60.5%) than women (47.8%). The proportion of men and women that were obese was 22.2% and 20.0%, respectively. Adulthood obesity prevalence forecasts (2010–2030) predict that in 2020, 22% of men and 9% of women will be obese. By 2030, the model predicts that 25% of men and 7% of women will be obese.<sup>1</sup>

### PREVALENCE OF OVERWEIGHT AND OBESITY (%) AMONG ADULTS OF THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA BASED ON WHO 2008 ESTIMATES



Source: WHO Global Health Observatory Data Repository (1).

### PREVALENCE OF OBESITY (%) (BMI $\geq 30.0$ KG/M<sup>2</sup>) AMONG ADULTS IN THE WHO EUROPEAN REGION BASED ON WHO 2008 ESTIMATES



### PREVALENCE OF OVERWEIGHT (%) (BMI $\geq 25.0$ KG/M<sup>2</sup>) AMONG ADULTS IN THE WHO EUROPEAN REGION BASED ON WHO 2008 ESTIMATES

Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Data ranking for obesity is intentionally the same as for the overweight data. BMI: body mass index.

Source: WHO Global Health Observatory Data Repository (1).

<sup>1</sup> Report on modelling adulthood obesity across the WHO European Region, prepared by consultants (led by T. Marsh and colleagues) for the WHO Regional Office for Europe in 2013.

## Adolescents (10–19 years)

In terms of prevalence of overweight and obesity in adolescents, up to 33% of boys and 20% of girls among 11-year-olds were overweight, according to data from the Health Behaviour in School-aged Children (HBSC) survey (2009/2010).<sup>2</sup> Among 13-year-olds, the corresponding figures were 26% for boys and 15% for girls, and among 15-year-olds, 24% and 8%, respectively (2).

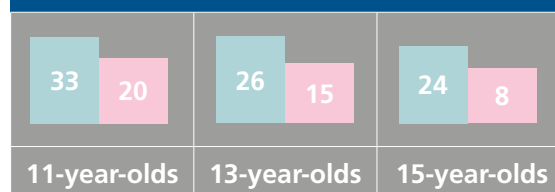
## Children (0–9 years)

No data are available from the WHO European Childhood Obesity Surveillance Initiative (COSI) 2007/2008 round. The former Yugoslav Republic of Macedonia, however, joined the second COSI data collection round during the school year 2009/2010. Intercountry data analysis is under way.

## Exclusive breastfeeding until 6 months of age

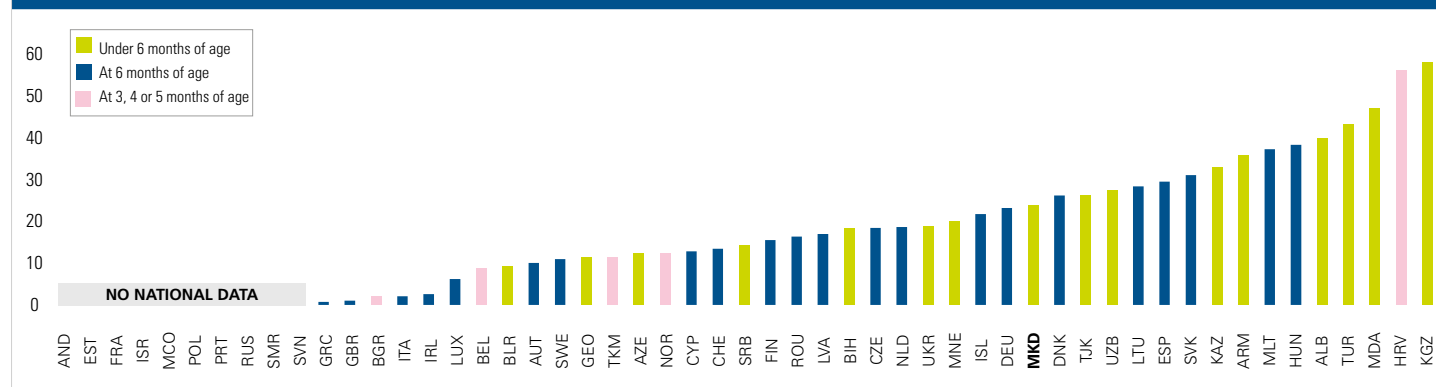
Nationally representative data from 2011 show that the prevalence of exclusive breastfeeding under 6 months of age was 23.0% in the former Yugoslav Republic of Macedonia.<sup>3</sup>

### PREVALENCE OF OVERWEIGHT (%) IN ADOLESCENTS OF THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA (BASED ON SELF-REPORTED DATA ON HEIGHT AND WEIGHT)



Source: Currie et al. (2).

### PREVALENCE OF EXCLUSIVE BREASTFEEDING (%) UNDER OR AT 6 MONTHS OF AGE FROM INDIVIDUAL COUNTRY-BASED SURVEYS, VARIOUS YEARS



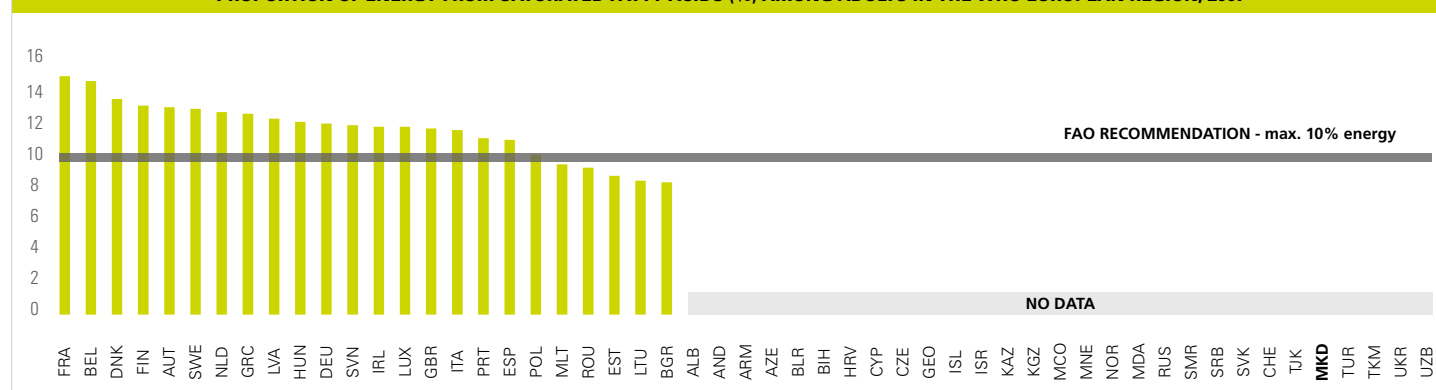
Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Data were derived from country-specific publications on surveys carried out in this field, not as part of a European-wide survey. Due to different data collection methods of the country-specific surveys, any comparisons between countries must be made with caution.

Source: WHO Regional Office for Europe grey literature from 2012 on breastfeeding.

## Saturated fat intake

No estimates are available from the Food and Agriculture Organization of the United Nations (FAO) from 2007 (3). National data from a household budget survey carried out in 2011 indicated that households in the former Yugoslav Republic of Macedonia consumed 8.9% of their total calorie intake from saturated fatty acids (4). It should be taken into account that these national data do not allow for comparability across countries due to sampling and other methodological differences.

### PROPORTION OF ENERGY FROM SATURATED FATTY ACIDS (%) AMONG ADULTS IN THE WHO EUROPEAN REGION, 2007



Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Ranking of data was carried out so that country data at the right-hand side of the graph – with values below the FAO recommendation – fall within the positive frame of the indicator.

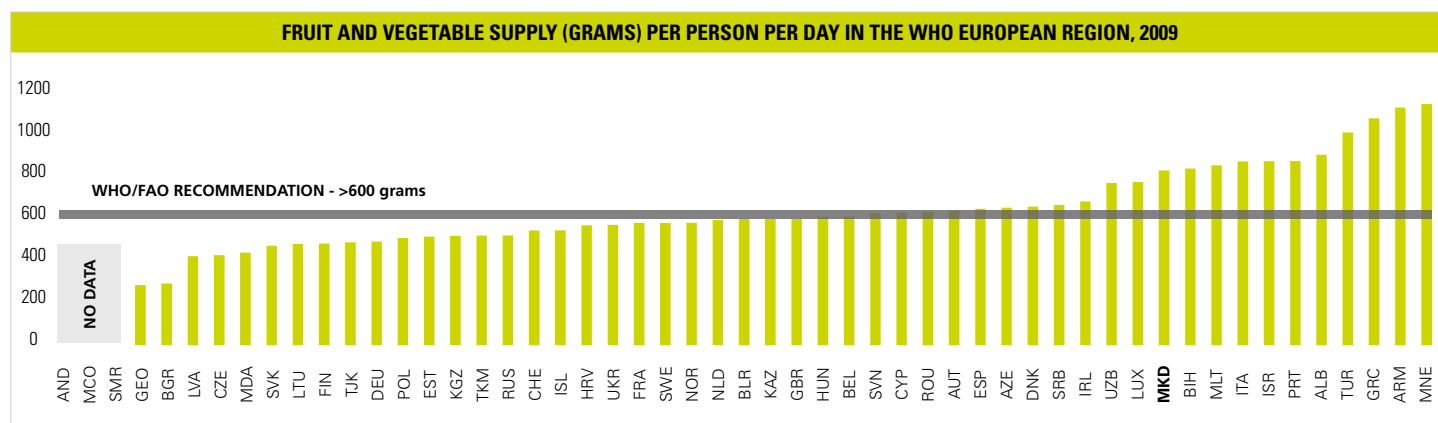
Source: FAOSTAT (3).

<sup>2</sup> Based on 2007 WHO growth reference.

<sup>3</sup> WHO Regional Office for Europe grey literature from 2012 on breastfeeding.

## Fruit and vegetable supply

The former Yugoslav Republic of Macedonia had a fruit and vegetable supply of 813 grams per capita per day, according to 2009 estimates (3).

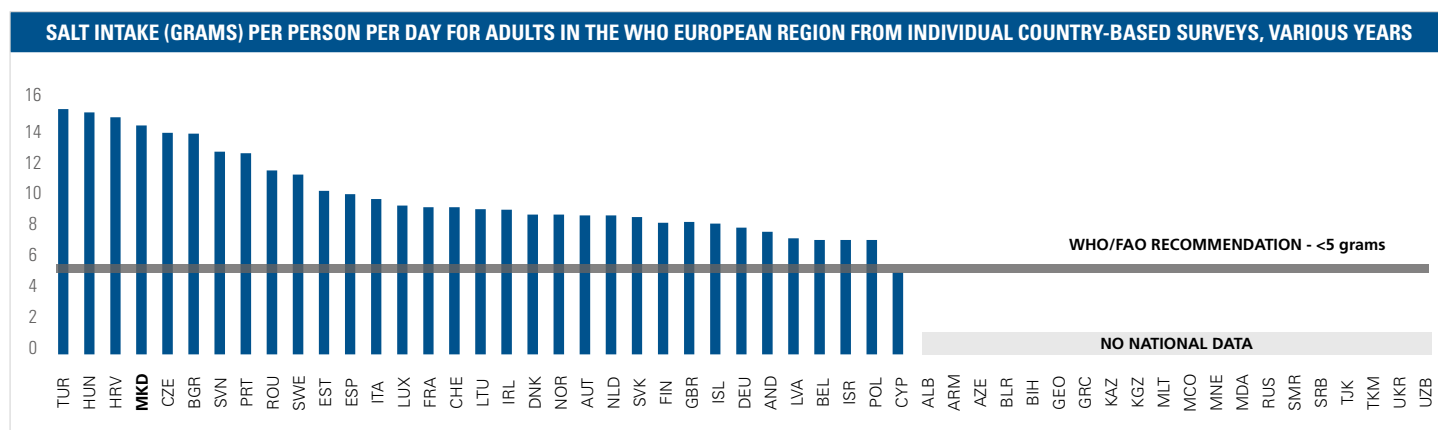


Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Ranking of data was carried out so that country data at the right-hand side of the graph – with values above the WHO/FAO recommendation – fall within the positive frame of the indicator.

Source: FAOSTAT (3).

## Salt intake

Data from a household budget survey carried out in 2011 show that salt intake in the former Yugoslav Republic of Macedonia was 14.0 grams per capita per day (4, 5).



Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Data were derived from country-specific publications on surveys carried out in this field, not as part of a European-wide survey. Due to different data collection methods of the country-specific surveys, any comparisons between countries must be made with caution. Ranking of data was carried out so that country data at the right-hand side of the graph – with values below the WHO/FAO recommendation – fall within the positive frame of the indicator.

Source: WHO Regional Office for Europe (5).

## Iodine status

According to the most recent estimates on iodine status, published in 2012, the proportion of the population with an iodine level lower than 100 µg/L was 10.2% (6, 7).

## Physical inactivity

No data are available for the adult population.

## Policies and actions

The table below displays (a) monitoring and evaluation methods of salt intake in the former Yugoslav Republic of Macedonia; (b) the stakeholder approach toward salt reduction; and (c) the population approach in terms of labelling and consumer awareness initiatives (5).

### Salt reduction initiatives

Monitoring & evaluation		Stakeholder approach			Population approach						
					Labelling	Consumer awareness initiatives					
Industry self-reporting		Industry involvement	Food reformulation	Specific food category		Brochure Print	TV Radio	Web site Software	Education	Conference	Reporting
Salt content in food	XX								Schools		
Salt intake	XX								Health care facilities		
Consumer awareness											
Behavioural change											
Urinary salt excretion (24 hrs)						XX			XX		

Note. XX partially implemented.

Source: WHO Regional Office for Europe (5).

## Trans fatty acids (TFA) policies

Legislation	Type of legislation	Measure

Source: WHO Regional Office for Europe grey literature from 2012 on TFA and health, TFA policy and food industry approaches.

## Price policies (food taxation and subsidies)

Taxes	School fruit schemes

Source: WHO Regional Office for Europe grey literature from 2012 on diet and the use of fiscal policy in the control and prevention of noncommunicable diseases.

## Marketing of food and non-alcoholic beverages to children (8)

No action has yet been taken regarding a reduction in the marketing of food and beverages to children. However, the Ministry of Health included the development of some initial steps in this field within the scope of its project collaboration with the WHO Regional Office for Europe.

## Physical activity (PA), national policy documents and action plans

Sport	Target groups	Health	Education		Transportation	
Existence of national "sport for all" policy and/or national "sport for all" implementation programme	Existence of specific scheme or programme for community interventions to promote PA in the elderly	Counselling on PA as part of primary health care activities	Mandatory physical education in primary and secondary schools	Inclusion of PA in general teaching training	National or subnational schemes promoting active travel to school	Existence of an incentive scheme for companies or employees to promote active travel to work
		✓ <sup>a</sup>	✓ <sup>a</sup>			

<sup>a</sup> Clearly stated in a policy document, entirely implemented and enforced.

Source: country reporting template on the former Yugoslav Republic of Macedonia from 2009 developed in the context of a WHO/EC project on monitoring progress on improving nutrition and PA and preventing obesity in the European Union (EU).

## Leadership, partnerships and professional networks on health-enhancing physical activity (HEPA)

Existence of national coordination mechanism on HEPA promotion	Leading institution	Participating bodies

Source: country reporting template on the former Yugoslav Republic of Macedonia from 2009 developed in the context of a WHO/EC project on monitoring progress on improving nutrition and PA and preventing obesity in the EU.

## PA recommendations, goals and surveillance

Existence of national recommendation on HEPA	Target groups addressed by national HEPA policy	PA included in the national health monitoring system
✓	General population	

Source: country reporting template on the former Yugoslav Republic of Macedonia from 2009 developed in the context of a WHO/EC project on monitoring progress on improving nutrition and PA and preventing obesity in the EU.

## References

1. WHO Global Health Observatory Data Repository [online database]. Geneva, World Health Organization, 2013 (<http://apps.who.int/gho/data/view.main>, accessed 21 May 2013).
2. Currie C et al., eds. *Social determinants of health and well-being among young people: Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 survey*. Copenhagen, WHO Regional Office for Europe, 2012 (Health Policy for Children and Adolescents, No. 6) ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf](http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf), accessed 21 May 2013).
3. FAOSTAT [online database]. Rome, Statistics Division of the Food and Agriculture Organization of the United Nations, 2013 (<http://faostat.fao.org/>, accessed 21 May 2013).
4. *Household consumption in the Republic of Macedonia, 2011*. Skopje, State Statistical Office of the Republic of Macedonia, 2012 (<http://www.stat.gov.mk/Publikacii/4.4.12.01.pdf>, accessed 1 July 2013).
5. *Mapping salt reduction initiatives in the WHO European Region*. Copenhagen, WHO Regional Office for Europe, 2013 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0009/186462/Mapping-salt-reduction-initiatives-in-the-WHO-European-Region-final.pdf](http://www.euro.who.int/__data/assets/pdf_file/0009/186462/Mapping-salt-reduction-initiatives-in-the-WHO-European-Region-final.pdf), accessed 29 May 2013).
6. Andersson M, Karumbunathan V, Zimmermann MB. Global iodine status in 2011 and trends over the past decade. *Journal of Nutrition*, 2012, 142(4):744–750.
7. Zimmerman MB, Andersson M. Update on iodine status worldwide. *Current Opinion in Endocrinology, Diabetes and Obesity*, 2012, 19(5):382–387.
8. *Marketing of foods high in fat, salt and sugar to children: update 2012–2013*. Copenhagen, WHO Regional Office for Europe, 2013 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0019/191125/e96859.pdf](http://www.euro.who.int/__data/assets/pdf_file/0019/191125/e96859.pdf), accessed 10 October 2013).