Nutrition, Physical Activity and Obesity
Croatia

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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 website: http://www.euro.who.int/en/nutrition-country-profiles.

DEMOGRAPHIC DATA	
Total population	4 284 889
Median age (years)	41.7
Life expectancy at birth (years) female | male	80.0 | 73.9
GDP per capita (US$)	13 300.0
GDP spent on health (%)	7.8

Monitoring and surveillance
Overweight and obesity in three age groups

Adults (18/20 years and over)

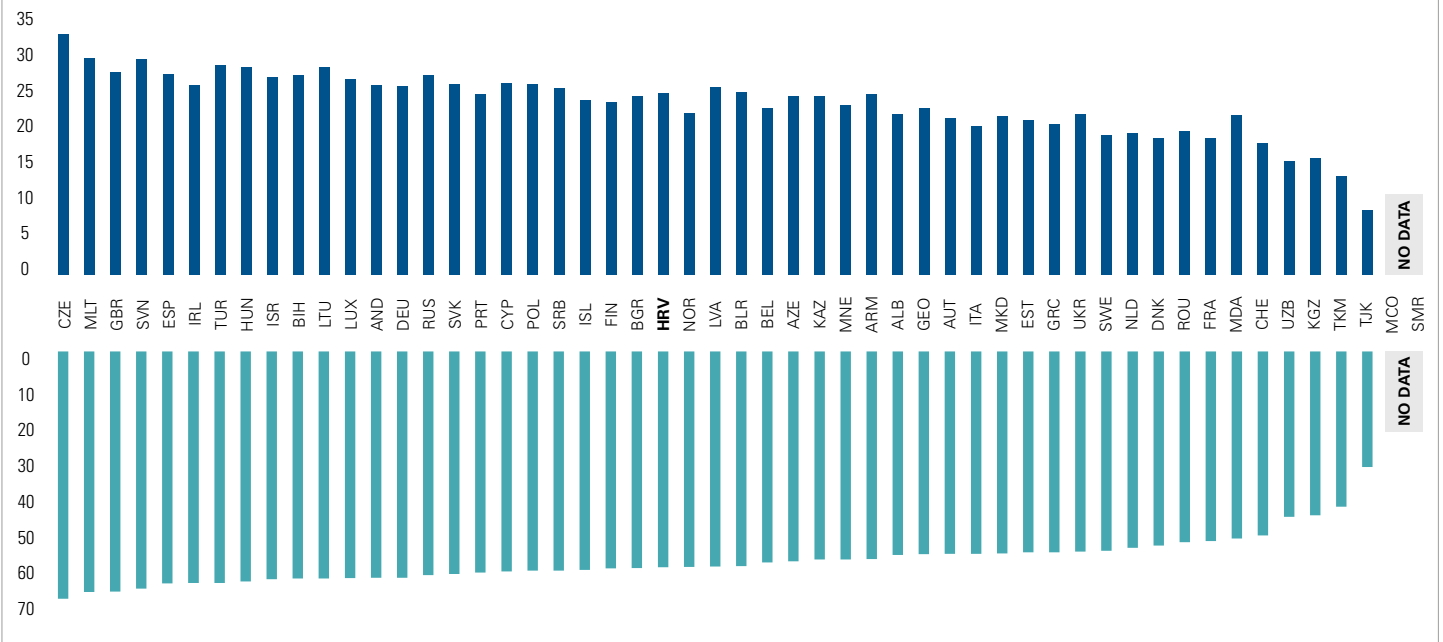
Intercountry comparable overweight and obesity estimates from 2008 *(1)* show that 57.7% of the adult population (≥ 20 years old) in Croatia were overweight and 24.2% were obese. The prevalence of overweight was higher among men (64.1%) than women (51.9%). The proportion of men and women that were obese was 24.4% and 23.9%, respectively.

According to the latest national anthropometric research on representative samples, undertaken in 2003 within the Croatian Adult Health Survey *(2)*,

PREVALENCE OF OVERWEIGHT AND OBESITY (%) AMONG CROATIAN ADULTS BASED ON WHO 2008 ESTIMATES

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

PREVALENCE OF OBESITY (%) (BMI ≥30.0 KG/M²) AMONG ADULTS IN THE WHO EUROPEAN REGION BASED ON WHO 2008 ESTIMATES



PREVALENCE OF OVERWEIGHT (%) (BMI ≥25.0 KG/M²) 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)*.

The Regional Office is grateful to the European Commission (EC) for its financial support for the preparation of this country profile and the development of the nutrition, obesity and physical activity database that provided data for it.

overweight and obesity estimates show that 58.5% of the adult population (≥ 18 years old) were overweight and 20.4% were obese. The prevalence of overweight was higher among men (63.3%) than women (54.2%). The proportion of obese men and women was 20.1% and 20.6%, respectively. It should be taken into account that these national data do not allow for comparability across countries.

Adulthood obesity prevalence forecasts (2010–2030) predict that in 2020, 35% of men and 42% of women will be obese. By 2030, the model predicts that 37% of men and 48% of women will be obese.[1]

PREVALENCE OF OVERWEIGHT (%) IN CROATIAN ADOLESCENTS (BASED ON SELF-REPORTED DATA ON HEIGHT AND WEIGHT)

Source: Currie et al. *(3).*

Adolescents (10–19 years)

In terms of prevalence of overweight and obesity in adolescents, up to 21% of boys and 15% of girls among 11-year-olds were overweight, according to data from the Health Behaviour in School-aged Children (HBSC) survey (2009/2010).[2] Among 13-year-olds, the corresponding figures were 22% for boys and 12% for girls, and among 15-year-olds, 23% and 10%, respectively *(3).*

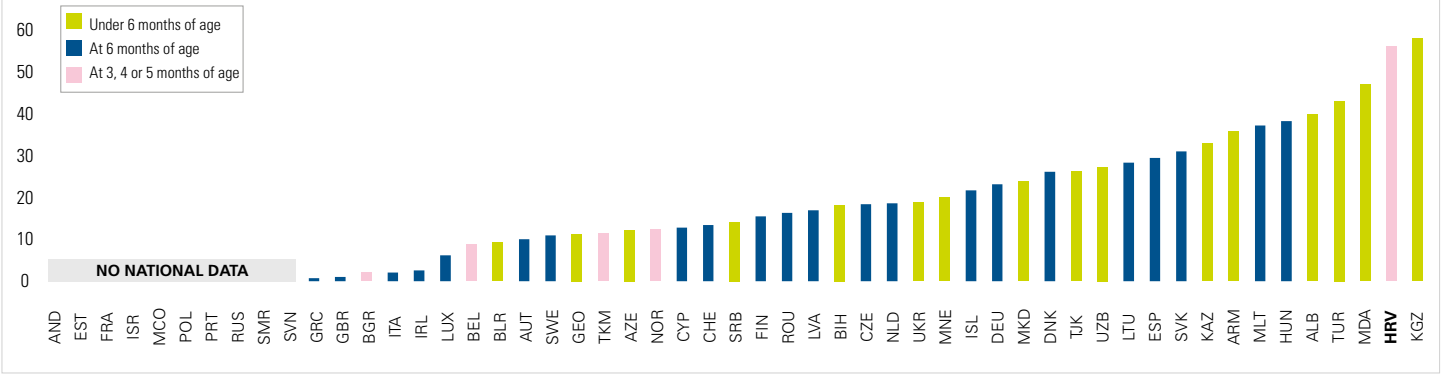
Children (0–9 years)

No prevalence figures are available for overweight and obesity in schoolchildren based on measured intercountry comparable data. Croatia is not yet participating in the WHO European Childhood Obesity Surveillance Initiative (COSI).

Exclusive breastfeeding until 6 months of age

Nationally representative data from 2011 show that in Croatia the proportion of infants aged 0 to 2.9 months being exclusively breastfed was 76.2%, and for infants aged 3 to 5.9 months, the corresponding figure was 54.2%.[3]

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

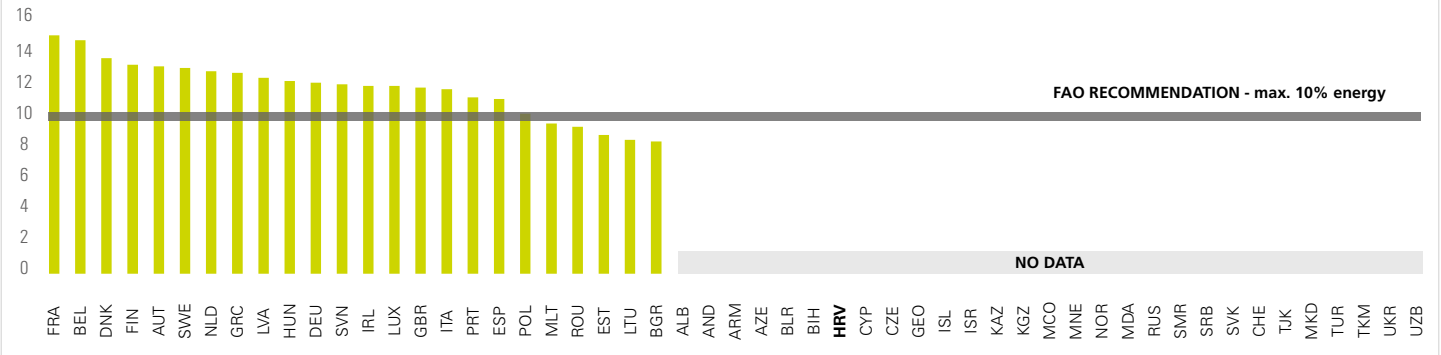


Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Data were derived from country-specific publications on surveys carried out in this field, not as part of a European-wide survey. Due to different data collection methods of the country-specific surveys, any comparisons between countries must be made with caution.
Source: WHO Regional Office for Europe grey literature from 2012 on breastfeeding.

Saturated fat intake

No data are available.

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

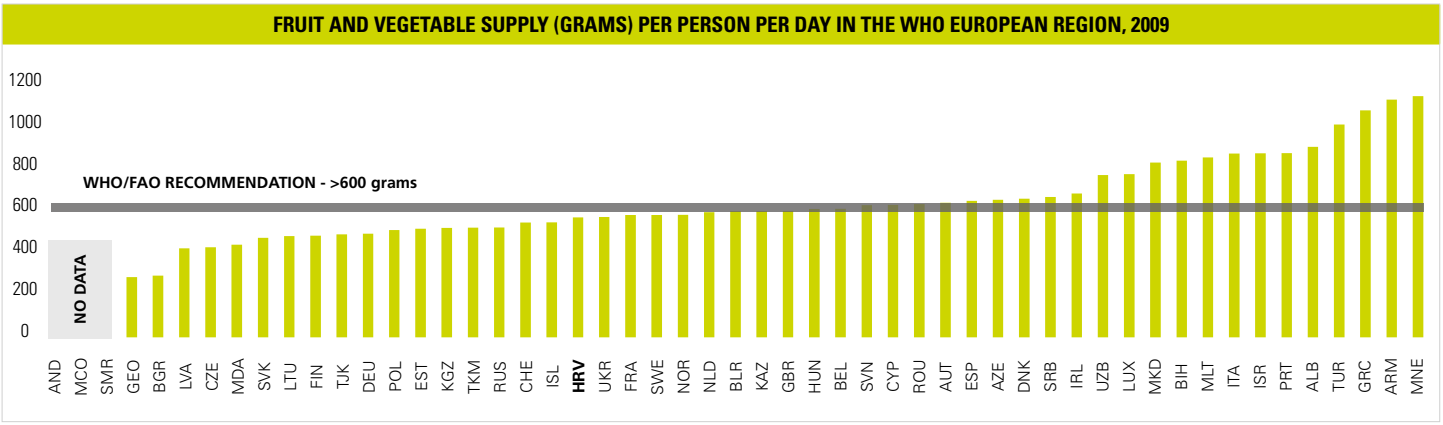


Notes. The country codes refer to the ISO 3166-1 Alpha-3 country codes. Ranking of data was carried out so that country data at the right-hand side of the graph – with values below the FAO recommendation – fall within the positive frame of the indicator. FAO: Food and Agriculture Organization of the United Nations.
Source: FAOSTAT *(4).*

[1] 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.
[2] Based on 2007 WHO growth reference.
[3] WHO Regional Office for Europe grey literature from 2012 on breastfeeding.

Fruit and vegetable supply

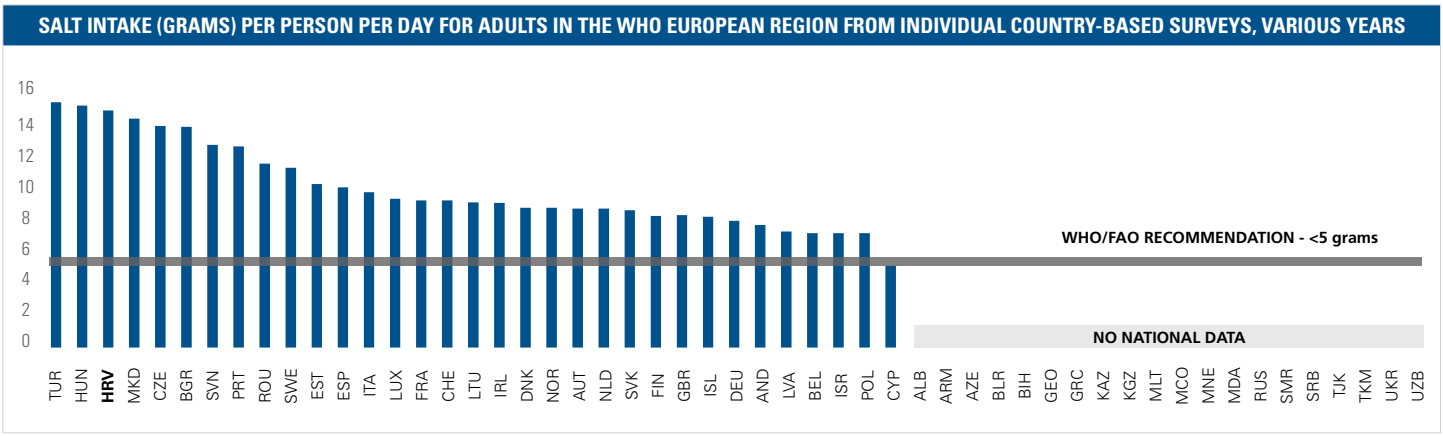
Croatia had a fruit and vegetable supply of 558 grams per capita per day, according to 2009 estimates *(4)*.



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 *(4)*.

Salt intake

Data from 2009 show that average salt intake in the Croatian adult population was around 13–16 grams per person per day *(5)*.



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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 22.3% *(6, 7)*.

Physical inactivity

In Croatia, 26.7% of the population aged 15 years and over were insufficiently active (men 27.8% and women 25.6%), according to estimates generated for 2008 by WHO *(1)*.

Policies and actions

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

Salt reduction initiatives

<table>
<tr><th colspan="2">Monitoring & evaluation</th><th colspan="3">Stakeholder approach</th><th colspan="7">Population approach</th></tr>
<tr><td colspan="2"></td><td colspan="3"></td><td>Labelling</td><td colspan="6">Consumer awareness initiatives</td></tr>
<tr><td>Industry self-reporting</td><td></td><td rowspan="3">Industry involvement</td><td rowspan="3">Food reformulation</td><td rowspan="3">Specific food category</td><td rowspan="5"></td><td rowspan="5">Brochure Print</td><td rowspan="5">TV Radio</td><td rowspan="5">Website Software</td><td rowspan="5">Education
Schools
Health care facilities</td><td rowspan="5">Conference</td><td rowspan="5">Reporting</td></tr>
<tr><td>Salt content in food</td><td>✘✘</td></tr>
<tr><td>Salt intake</td><td>✘✘</td></tr>
<tr><td>Consumer awareness</td><td></td><td rowspan="3">✘✘</td><td rowspan="3">✘✘</td><td rowspan="3">30% salt reduction in certain types of bread</td></tr>
<tr><td>Behavioural change</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Urinary salt excretion (24 hrs)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Note. ✘✘ 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
	National School Fruit Scheme Strategy is currently being developed, to be implemented during the school year 2013/2014

Sources: 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; EC School Fruit Scheme website *(10).*

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

In 2012 the National Institute of Public Health initiated a project with the aim of developing policy and a draft national strategy on the marketing of food and beverages to children. To this end, plans are being made to carry out research with the aim of defining the exposure of children to different types of advertising and through different media. Furthermore, within the framework of bilateral collaboration between the Ministry of Health and the WHO Regional Office for Europe, it has been agreed that a policy on marketing of foods high in fat, sugar or salt to children should be developed during the 2012–2013 biennium.

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
✔	✔	✔[a]	✔[b]	✔[a]	✔[a]	

[a] Clearly stated in a policy document, partially implemented or enforced. [b] Clearly stated in a policy document, entirely implemented and enforced.
Source: country reporting template on Croatia 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
Although there is no national coordination mechanism on HEPA promotion in the country, two Croatian institutions are active HEPA members (University of Zagreb's Faculty of Kinesiology and Croatian Sports Medicine Society)	University of Zagreb, Faculty of Kinesiology	Croatian Sports Medicine Society

Source: country reporting template on Croatia 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 adressed by national HEPA policy	PA included in the national health monitoring system
		Questions on PA were included in the 2003 Croatian Health Survey

Source: country reporting template on Croatia 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. Andrija Stampar School of Public Health, Croatian Public Health Institute, Ministry of Health, Canadian Society for International Health. *2003 Croatian Adult Health Survey: health systems project.* Zagreb, Croatian Ministry of Health, Canadian Society for International Health, 2003.
3. 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, accessed 21 May 2013).
4. 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).
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, 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, accessed 10 October 2013).