

DIFFERENCES IN THE DIETARY HABITS AND RISK FACTORS FOR METABOLIC DISEASES BETWEEN WESTERN AND EASTERN EUROPE

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OBJECTIVES

The global prevalence of overweight and obesity continues to rise, representing approximately 4–12% of total healthcare expenditures. This study aimed to examine the influence of dietary and lifestyle factors on health outcomes and to compare these associations between Western and Eastern European countries.

METHODS

Country-level data from the Organisation for Economic Co-operation and Development and the World Health Organization Health for All Database were analyzed for the period 2015–2019. The dataset included 23 European countries and 22 variables. Statistical analyses consisted of descriptive statistics, independent two-sample t-tests, and Pearson correlation analyses using IBM SPSS Statistics version 26.0, with statistical significance set at $p < 0.05$.

RESULTS

Western European countries demonstrated significantly higher total energy (3,496,7 versus 3,200.3 kcal/person/year) and fat (148,7 versus 23,5 gr/person/year) intake compared to Eastern Europe ($p < 0.001$). In both regions, vegetable and fruit intake remained below the recommendations of the current dietary guidelines. Fat intake exceeded the recommended 30% of total energy intake in 22 countries ($p < 0.001$), except Bulgaria. The prevalence of overweight and obesity was significantly higher in Eastern Europe ($p < 0.001$). In Eastern Europe, a positive correlation was observed between vegetable availability and total energy availability ($r = 0.35$; $p = 0.009$), whereas in Western Europe, fruit availability was inversely associated with energy availability ($r = -0.269$; $p = 0.038$). A negative correlation between fat and energy availability was identified in Eastern Europe ($r = -0.30$; $p = 0.028$).

CONCLUSIONS

Dietary patterns in both regions fall short of recommended standards. Despite higher energy and fat availability, Western European countries exhibit more favorable health outcomes, suggesting that health status is influenced by a complex interplay of dietary, lifestyle, and broader systemic factors.

Keywords: lifestyle; nutrition; metabolic diseases; obesity; diabetes mellitus; Europe

	FAT (G/PERSON)	ENERGY (KCAL/PERSON)	SUGAR (KG/PERSON/YEAR)	VEGETABLE (KG/PERSON/YEAR)	FRUIT (KG/PERSON/YEAR)	FAT (ENERGY %)	BMI >30 (POPULATION %)	BMI >25 (POPULATION %)
WESTERN-EUROPE	148.7	3496.7	53.5	141.4	126.5	38.2	16.8	48.9
EASTERN-EUROPE	123.5	3200.3	52.8	131.3	78.1	34.5	23.6	57.4
P (W-E DIFFERENCE)	<0.001	<0.001	0.886	0.234	<0.001	<0.001	<0.001	<0.001

Table 1. Differences between Western- and Eastern Europe in dietary patterns

	VEGETABLE (KG/PERSON/YEAR)	ENERGY (KCAL/PERSON/DAY)	p	r
WESTERN-EUROPE	141.4	3496.7	0.39	0.114
EASTERN-EUROPE	131.3	3240.2	0.009	0.35

Table 2. Correlation between vegetable and energy intake compared in Western- and Eastern-Europe

	FRUIT (KG/PERSON/YEAR)	ENERGY (KCAL/PERSON/DAY)	p	r
WESTERN-EUROPE	126.5	3496.7	0.038	-0.269
EASTERN-EUROPE	78.1	3200.3	0.387	0.119

Table 3. Correlation between fruit and energy intake compared in Western- and Eastern-Europe

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