



Is Obesity Increasing Among Azerbaijan Population? A Data-Driven Analysis of BMI Trends in Azerbaijan

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Background and Aim. Obesity has become one of the most serious public health challenges of the 21st century, affecting individuals' physical, psychological, and social wellbeing and often continuing into adulthood. Global trends show that increasing body weight is closely associated with several lifestyle and environmental factors, such as reduced physical activity, high-calorie diets, urbanisation, increased screen time, and socio-economic inequalities. While this issue has been widely examined in high-income countries, there is still a lack of region-specific studies in the South Caucasus. This research aims to address that gap by analysing the prevalence and progression of obesity in Azerbaijan through a data-driven approach that combines public health, sport science, and data analytics perspectives.

Methods. The study employed a quantitative research design based on Body Mass Index (BMI) data obtained from the State Statistical Committee of Azerbaijan. Data from individuals aged 15 to 65+ were analysed, and BMI values were categorised into standard weight groups. Data processing and visualisation were conducted using Python and analytical tools to compare trends between 2019 and 2024.

Results. The analysis revealed a consistent increase in average BMI and overweight prevalence across most age groups between 2019 and 2024. The most notable rise was observed among individuals aged 45–64 and 65+, with overweight rates increasing from 13.5% to 16.3% and from 14.8% to 18.8%, respectively. While younger age groups remained largely within a healthy range, a slight upward trend was also detected.

Conclusions. Although obesity in Azerbaijan has not yet reached critical levels seen in some other countries, the rising BMI trends indicate a growing public health concern, particularly among middle-aged and older populations. The findings highlight the importance of early preventive strategies, increased physical activity, and strengthened school-based health programmes to promote healthier lifestyles.

Keywords: Obesity; Body Mass Index (BMI); public health; physical activity; Azerbaijan

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