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The prevalence of overweight and obesity in 380 counties in Poland: A retrospective analysis of the National Health Fund dataset

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Abstract

Excess body weight is an emerging public health problem. This study assesses the prevalence of overweight and obesity in 380 counties in Poland using the official, population-based data. This study is a retrospective analysis of the dataset published on October 1, 2025 by the National Health Fund within the project called "Healthy Data." Since March 2025, primary care providers (family doctors) in Poland have been obligated to report patients' height and weight during the first visit in a given year. The following BMI categories were defined: underweight (BMI < 18.5), normal weight (BMI 18.5–25.0), overweight (BMI 25–30.0), and obesity (BMI ≥ 30). Data on 13,402,601 adult individuals were included in the analysis. The overall prevalence of overweight was 37.7% and the prevalence of obesity was 26.8%. In total, 8,646,885 individuals (64.5% of the total population) had excess body weight. In 67.6% of all 380 counties in Poland, the prevalence of excess body weight (BMI ≥ 25) was between 65% and 70% of the county's population. The highest prevalence of excess body weight (overweight or obesity) was in Łosicki County (72.4%), and the lowest in Poznań County (55.8%). The findings from this study revealed health disparities related to the prevalence of overweight and obesity in Poland, with the highest prevalence being in northeastern Poland and the lowest in large cities.

Keywords: overweight; obesity; epidemiology; prevalence; Poland

Introduction

Excess body weight is an emerging public health problem (Ahmed et al., 2025; GBD 2021 Adult BMI Collaborators, 2025). The global prevalence of overweight and obesity is increasing (GBD 2021 Adult BMI Collaborators, 2025). Between 1990 and 2021, rates of overweight and obesity increased at the global and regional levels. Body Mass Index (BMI) is the most common tool for assessing weight in a population (Nuttall, 2015). A BMI of 25 or higher is recognized as excess body weight (Elmaleh-Sachs et al., 2023).

Excess body weight can significantly affect overall health. Having too much body fat increases one's risk of major health problems, including cardiovascular diseases (heart disease and stroke in particular), type 2 diabetes, musculoskeletal disorders (such as osteoarthritis), and certain cancers (such as endometrial, breast, and colon cancer) (Blüher, 2025; Ansari et al., 2020).

Poland is a European Union (EU) Member State, with a growing burden of excess body weight (Stival et al., 2022). In 2019/2020 in Poland, the prevalence of overweight was 42.2% (52.4% among men and 32.0% among women), and the prevalence of obesity was 16.4% (16.5% of men and 16.2% of women) (Stoś et al., 2022). Men, older participants, occupationally active individuals, those living in rural areas, and individuals with at least one chronic disease were significantly associated with excess body weight (Stoś et al., 2022). Despite the high prevalence of obesity in Poland, public awareness of obesity is relatively low (Sękowski et al., 2025). Most adults in Poland (84.8%) correctly identify obesity as a disease, but knowledge on the causes and treatment methods is limited (Sękowski et al., 2025).

Population-based data on overweight and obesity, including demographic and geographical differences, is necessary to plan and develop public health strategies on excess body weight. However, there is limited knowledge on health inequalities related to excess body weight in Poland. Therefore, the aim of this study was to assess the prevalence of overweight and obesity in Poland's 380 counties using the population-based data published by the National Health Fund.

Material and Methods

This study is a retrospective analysis of the dataset published on October 1, 2025 by the National Health Fund within the project called "Healthy Data" (National Health Fund, 2025). Since March 2025, primary care providers (family doctors) in Poland have been obligated to report patients' height and weight during the first visit in a given year; before March 2025, such data was reported voluntarily. Data on the number of patients from a given county who had at least one visit with their weight and height reported were analyzed. Patients aged 18 or over who were identified by their national identity

number were included. The patient's county and municipality at the end of March of the previous year were taken from the Central Register of Insured Persons. If multiple weight or height values were reported for a patient during the study period, the average value was calculated. The BMI scores were then calculated. Data for each of the 380 counties in Poland are presented.

The following BMI categories were defined: underweight (BMI < 18.5), normal weight (BMI 18.5–25.0), overweight (BMI 25–30.0), and obesity (BMI ≥ 30).

The data set included data for all patients for whom primary care providers reported data on height and weight between January 1 and June 30, 2025.

The data were analyzed with MS Excel (Microsoft, Redmond, Washington, USA). As this study is a retrospective analysis of a publicly available database, informed consent was waived. All the procedures followed the principles of the Declaration of Helsinki.

Results

A total of 13,402,601 individuals whose primary care physician reported their height and weight in the first half of 2025 were included in the analysis (Table 1). Of them, 5,051,155 were overweight and 3,595,730 were obese. The overall prevalence of overweight was 37.7% and that of obesity was 26.8%. In total, 8,646,885 individuals had excess body weight (64.5% of the total population). Additionally, 1.7% of individuals were underweight (Table 1).

Table 1. Prevalence of overweight and obesity in Poland

BMI status	n	Percentage of the total population
Underweight (BMI < 18.5)	233,233	1.7%
Normal weight (BMI 18.5–25.0)	4,522,483	33.7%
Overweight (BMI 25.0–30.0)	5,051,155	37.7%
Obesity (BMI ≥ 30)	3,595,730	26.8%
Total	13,402,601	100%

The prevalence of excess body weight is presented in Figure 1. In 67.6% of all 380 counties in Poland, the prevalence of excess body weight (BMI ≥ 25) was between 65% and 70% of the county's population. In 26.6%, the prevalence of excess body weight ranged from 60% to 65%; in 3.4%, it ranged was 70% or higher; and in 2.4%, it ranged from 55% to 60%.

In 95.3% of the counties (n = 362), the prevalence of overweight (BMI 25.0–30.0) ranged from 35% to 40%.

In 69.5% of the counties, the prevalence of obesity (BMI ≥ 30.0) was between 25% and 30% of the county's population; in 19.5%, it ranged from 30% to 35%; and in 11.1%, it ranged from 20% to 25%.

Among the 380 counties in Poland, the highest prevalence of excess body weight (overweight or obesity) was in Łosicki County (72.4%); the lowest was in Poznań County (55.8%) (Table 2). The prevalence of overweight varied from 34.2% in Kluczborski County to 42.1% in Konecki County (Table 3). The prevalence of obesity varied from 33.9% in Górowski County to 20% in Poznań County (Table 4).

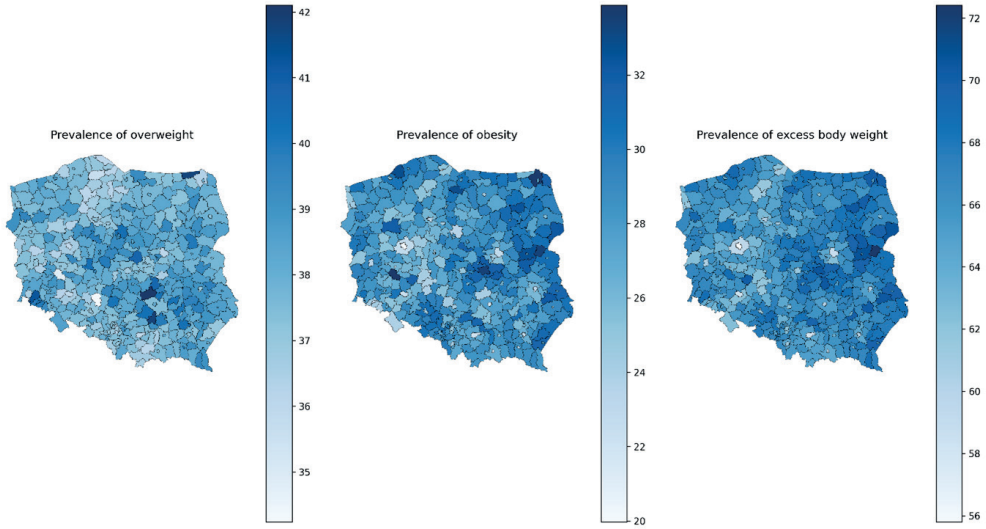

Figure 1. Prevalence of excess body weight (BMI ≥ 25) in each of the 380 counties in Poland

Table 2. Counties with the highest and lowest prevalence of excess body weight in Poland

Excess body weight: overweight and obesity		
Ranking among the 380 counties	**County**	**Prevalence of excess body weight (BMI ≥ 25)**
1	Łosicki	72.4
2	Siedlecki	70.8
3	Hajnowski	70.7
4	Rawski	70.6
5	Przysuski	70.5
6	Krasnostawski	70.4
7	Kolneński	70.4

Excess body weight: overweight and obesity		
Ranking among the 380 counties	**County**	**Prevalence of excess body weight (BMI ≥ 25)**
8	Janowski	70.2
9	Sokołowski	70.1
10	Milicki	70.1
11	Suwalski	70.1
12	Grajewski	70.0
13	Sejneński	70.0
14	Tarnobrzeski	69.8
15	Chełmski	69.7
16	Przemyski	69.6
17	Łukowski	69.6
18	Bielski	69.6
19	Węgrowski	69.5
20	Grójecki	69.5
361	Kępiński	61.5
362	Szczecin	61.3
363	Chojnicki	61.2
364	Bielsko-Biała	61.2
365	Opole	61.1
366	Gdańsk	61.0
367	Toruń	60.7
368	Zielona Góra	60.4
369	Lublin	60.3
370	Bydgoszcz	60.2
371	Kielce	60.0
372	Rzeszów	59.9
373	Nowy Sącz	59.6
374	Leszno	59.3
375	Poznański	59.3
376	M. St. Warszawa	58.7
377	Wrocław	58.3
378	Sopot	58.0
379	Kraków	57.9
380	Poznań	55.8

Table 3. Counties with the highest and lowest prevalence of overweight in Poland

Overweight		
Ranking among the 380 counties	**County**	**Prevalence of overweight (BMI 25.0–30.0)**
1	Konecki	42.1
2	Pińczowski	41.8
3	Gołdapski	41.8
4	Lwówecki	41.2
5	Łowicki	40.7
6	Przysuski	40.6
7	Pleszewski	40.3
8	Lipnowski	40.3
9	Kolbuszowski	40.2
10	Jędrzejowski	40.2
11	Ostrowiecki	40.2
12	Skarżyski	40.2
13	Jelenia Góra	40.1
14	Kłobucki	40.1
15	Krosno	40.1
16	Sandomierski	40.1
17	Sokołowski	39.9
18	Jeleniogórski	39.9
19	Buski	39.9
20	Turecki	39.9
361	Tychy	36.3
362	Chodzieski	36.3
363	Grodziski	36.2
364	Sztumski	36.2
365	Sępoleński	36.2
366	Średzki	36.2
367	Świebodziński	36.2
368	Limanowski	36.2
369	Chorzów	36.1
370	Tczewski	36.1
371	Gdańsk	36.1
372	Chojnicki	36.1

Overweight		
Ranking among the 380 counties	**County**	**Prevalence of overweight (BMI 25.0–30.0)**
373	Pucki	36.0
374	M. St. Warszawa	36.0
375	Wrocław	35.9
376	Kraków	35.9
377	Poznań	35.8
378	Kartuski	35.6
379	Górowski	34.8
380	Kluczborski	34.2

Table 4. Counties with the highest and lowest prevalence of obesity in Poland

Obesity		
Ranking among the 380 counties	**County**	**Prevalence of obesity (BMI ≥ 30.0)**
1	Górowski	33.9
2	Suwalski	33.7
3	Rawski	33.4
4	Łosicki	33.3
5	Sztumski	32.9
6	Sławieński	32.8
7	Siedlecki	32.6
8	Kolneński	32.4
9	Hajnowski	32.2
10	Krasnostawski	32.1
11	Łukowski	31.9
12	Żyrardowski	31.9
13	Białobrzeski	31.9
14	Czarnkowsko-Trzcianecki	31.8
15	Sejneński	31.6
16	Gostyniński	31.6
17	Grójecki	31.6
18	Milicki	31.6
19	Skierniewicki	31.5
20	Przemyski	31.4

Obesity		
Ranking among the 380 counties	**County**	**Prevalence of obesity (BMI ≥ 30.0)**
361	Kamiennogórski	23.8
362	Kłodzki	23.8
363	Kępiński	23.7
364	Zielona Góra	23.5
365	Lipnowski	23.4
366	Lublin	23.3
367	Bydgoszcz	23.1
368	Rzeszów	22.8
369	Poznański	22.7
370	M. St. Warszawa	22.7
371	Krosno	22.6
372	Wrocław	22.4
373	Kalisz	22.4
374	Jelenia Góra	22.3
375	Nowy Sącz	22.2
376	Leszno	22.0
377	Kraków	22.0
378	Kielce	21.8
379	Sopot	20.6
380	Poznań	20.0

Discussion

This study presents population-based data on the prevalence of overweight and obesity in the 380 counties in Poland. The findings from this study revealed significant geographic differences in the prevalence of overweight and obesity. The overall prevalence of excess body weight is high (64.5% of the adult population). Marked differences in the prevalence of excess body weight between counties were noted.

Previous data in Poland reported that the prevalence of excess body weight in 2019/2020 was estimated at 58.6% of the adult population (Stoś et al., 2022). In this population-based study (first half of 2025), the prevalence of excess body weight was 64.5%. Findings from this study suggest that the prevalence of excess body weight is growing. This phenomenon may be partially caused by the COVID-19 pandemic and changes in lifestyle caused by pandemic-related experiences (Anderson et al., 2023; Nour et al., 2023).

The findings also show that there is a high burden of excess body weight in most regions of Poland, with almost 90% of counties having more than one quarter of citizens with obesity. This underscores the need for health policy programs developed by local governments to target obesity prevention and management (Augustynowicz et al., 2019).

There were significant differences in the prevalence of excess body weight between geographical regions, with the highest prevalence (BMI ≥ 25) being in eastern Poland. Moreover, large cities were characterized by a lower prevalence of excess body weight. This observation requires further analysis of the lifestyle factors that may affect weight gain, especially in rural areas.

Obesity disparities may be caused by social and economic factors (Williams et al., 2024). Lower educational level, lower economic status, and transportation barriers may increase the risk of excess body weight. Moreover, disparities in access to obesity care may also occur (Washington et al., 2023). Lifestyle-related factors play a crucial role in the development of overweight and obesity, especially eating habits and patterns of physical activity, so public health policies should address disparities in health promotion programs.

This study has practical implications for policymakers. Firstly, disparities between counties in the percentage of the population with excess body weight are presented. The maps presented in this study clearly show the regions with the highest prevalence of overweight and obesity. Secondly, this study reveals a growing burden of excess body weight when compared to previous studies. Thirdly, the study highlights the need to implement public health policies for the prevention and treatment of overweight and obesity, as their health and economic burdens are high.

There are several limitations of this study. Firstly, it is a retrospective analysis of data published by the National Health Fund, so the scope of analysis is limited to the data available therein. Secondly, only adults who visited a primary care physician in the first half of 2025 were considered. Data was provided for over 13 million adults, but the analysis did not cover the whole population of adults in Poland. Thirdly, there is a risk that some patients may self-report data on height and weight and not all patients were measured and weighed by health professionals.

Conclusions

This study revealed that excess body weight is an emerging public health problem in Poland. The findings revealed health disparities related to the prevalence of overweight and obesity in Poland. The prevalence of overweight and obesity was the highest in north-eastern Poland, with the lowest prevalence being in large cities. The disparities in BMI values across Polish counties require action from the public health authorities and should be addressed through public health policies at both the national and local levels.

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