

# Overweight and obesity



**Field of action 1: Reducing the risk of diabetes**



**Adults**

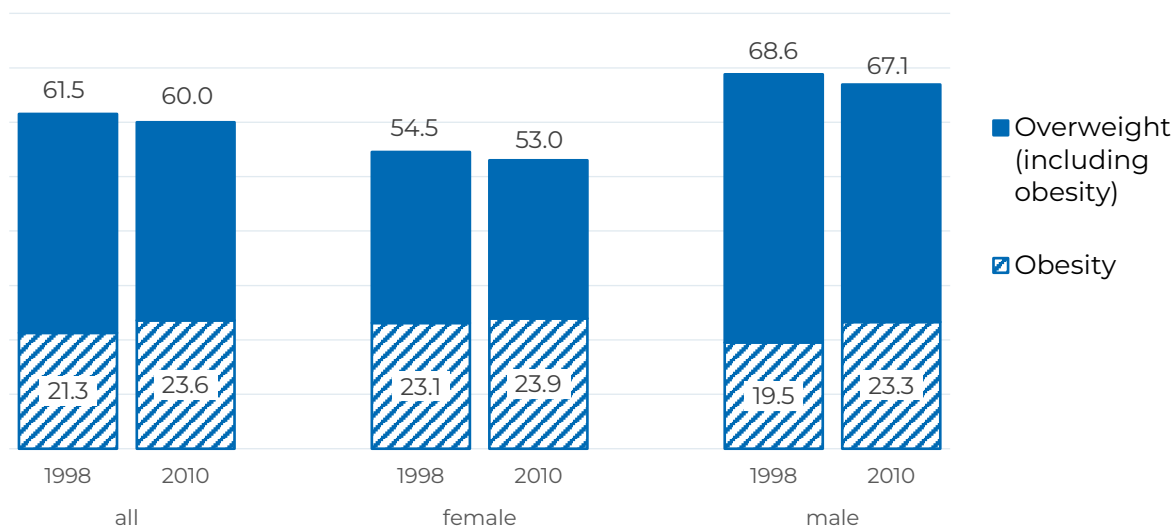
## Background

Overweight describes a condition in which the weight of a body is higher than normal relative to its height. Severe overweight is termed obesity. Overweight and obesity are major risk factors for the development of noncommunicable diseases such as type 2 diabetes [1].

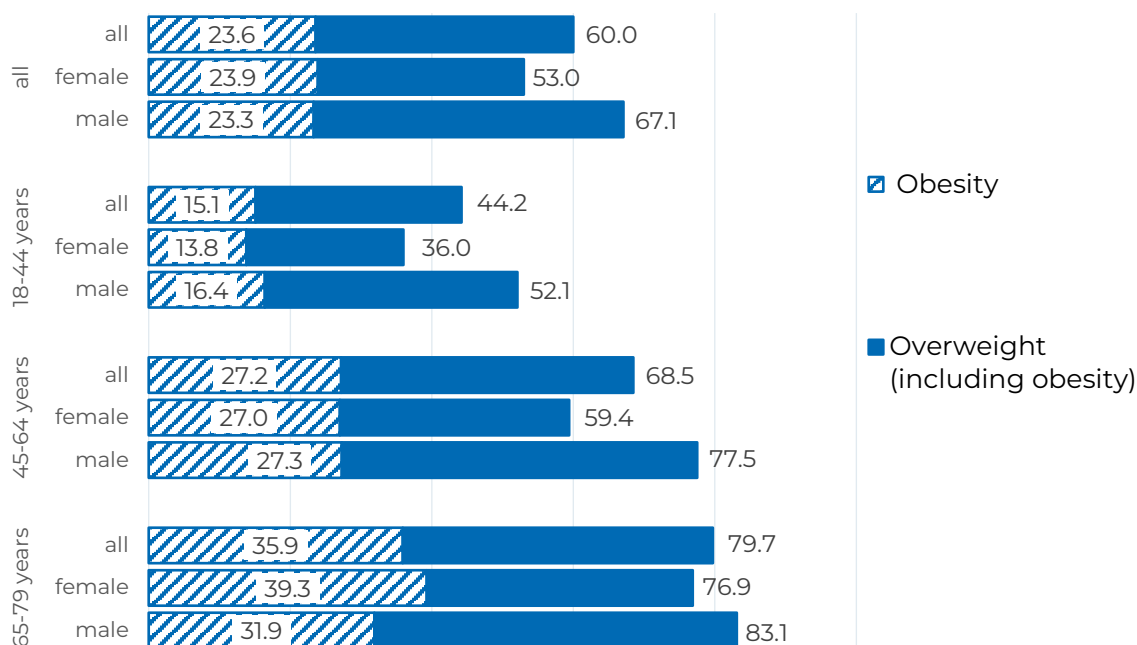
### Key messages

- ▶ In 2010, nearly one-quarter of all 18- to 79-year-olds is obese.
- ▶ Men and women in the low-education group are twice as likely to be obese as those in the high-education group.

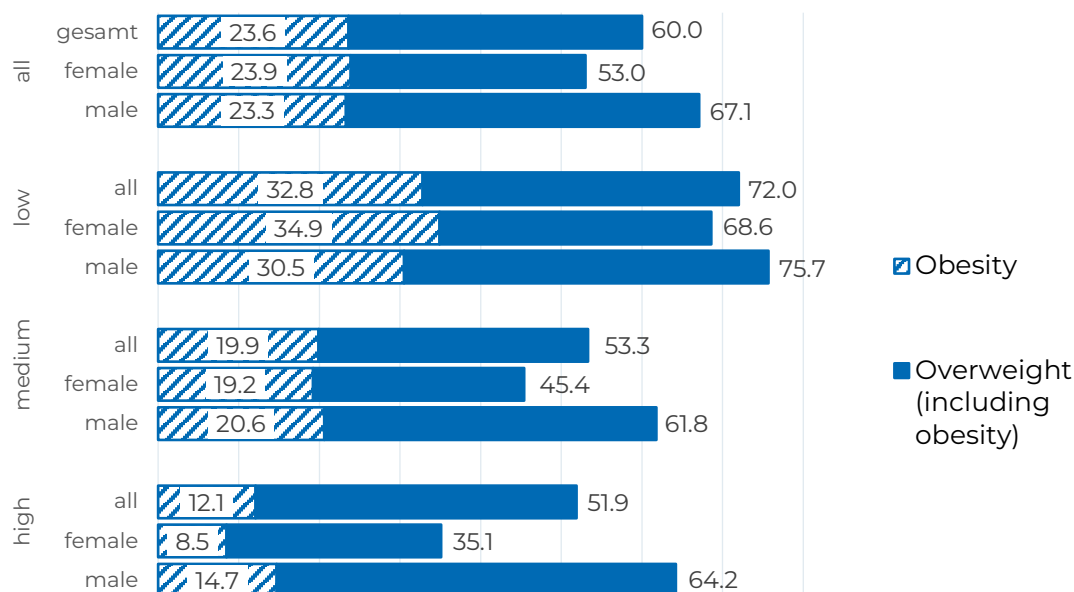
**Figure 1:** Temporal comparison of the prevalence of overweight (including obesity) and obesity in % among adults (18 – 79 years) by sex between 1998 and 2010 (age-standardised).



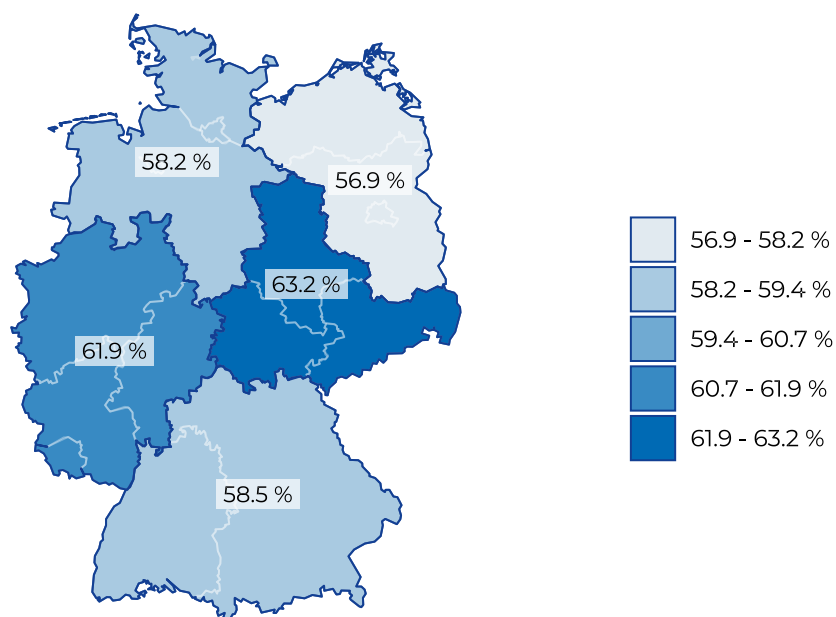
**Figure 2:** Prevalence of overweight (including obesity) and obesity in % among adults (18 – 79 years) in 2010 by age and sex.



**Figure 3:** Prevalence of overweight (including obesity) and obesity in % among adults (18 – 79 years) in 2010 by education group and sex.



**Figure 4:** Prevalence of overweight (including obesity) in % among adults (18 – 79 years) in 2010 by region (north east, north west, middle east, middle west, south).



## Results

In 2010, the prevalence of overweight (including obesity) for the 18- to 79-year-old population was 60.0% (women 53.0%; men 67.1%), while 23.6% of adults (women 23.9%; men 23.3%) were obese. There are twice as many obese people in the low-education group as in the high-education group. When compared with 1998, the prevalence of overweight (including obesity) remained stable for both sexes, while the prevalence of obesity among men increased.

## Conclusion

Nearly one-quarter of 18- to 79-year-olds living in Germany is obese. It is vital to prevent any increase in the prevalence of obesity by expanding appropriate measures as per the Global Action Plan objectives by the World Health Organization (WHO) [2] and the German government's sustainable development strategy [3].

## Methodology and data sources

### Definition

The indicator overweight is defined according to the WHO [1] classification scheme as the proportion of persons in the population with a Body Mass Index (BMI) of  $\geq 25.0 \text{ kg/m}^2$ , and the indicator obesity is defined accordingly as the proportion of persons in the population with a BMI of  $\geq 30.0 \text{ kg/m}^2$ .

### Operationalisation

BMI was calculated using the measurements of body weight and height taken from examinations. BMI is defined as body weight (kg) divided by body height squared ( $\text{m}^2$ ).

### Reference population

Resident population in Germany, aged 18 to 79 years

### Data source

- ▶ Nationwide interview and examination surveys 1997 – 1999 (German National Health Interview and Examination Survey 1998, GNHIES98) and 2008 – 2011 (German Health Interview and Examination Survey for Adults, DEGS1) of the Robert Koch Institute (RKI) based on a population registry sample and self-completed questionnaire, medical interview, automated medication recording program, and examination.

### Number of cases

- ▶ GNHIES98:  $n = 7,124$
- ▶ DEGS1:  $n = 7,115$  (of which  $n = 2,923$  had also participated in GNHIES98)

### Calculation

- ▶ **Description:** For the indicator, the figures for total, women and men are provided and are stratified by age group, residential area and education as far as the number of cases available for the figure is  $\geq 5$  and the statistical uncertainty in the estimate of the indicator is not considered too large (a coefficient of variation  $\leq 33.5\%$ ).

- ▶ **Stratification:** The geographical classification of the residence of the participating person was carried out by region (north east, north west, middle east, middle west and south). Educational status was determined using the Comparative Analysis of Social Mobility in Industrial Nations (CASMIN) index, which takes information on both school and vocational training into account and allows a categorisation into a low, medium and high education group.
- ▶ **Weighting:** In order to correct for deviations from the underlying reference population due to different participation rates or sampling probabilities, weighting factors were used when calculating the indicator. These adjust the surveys to the population structure of the reference population with regard to sex, age, federal state, German citizenship (yes / no), community type and education as of 31 December 1997 (GNHIES98) and 31 December 2010 (DEGS1). In DEGS1, the different participation probability of re-participants from GNHIES98 was also taken into account in the weighting.
- ▶ **Age standardisation:** Age standardisation and trend weighting was carried out by calculating the weighting factor in GNHIES98 using the age, sex and federal state structure of the reference population as of 31 December 2010.

## Data quality

RKI interview and examination surveys provide representative results for the 18- to 79-year-old resident population of Germany. The population aged 80 years and over will only be included in future survey waves. As is the case in all population-based studies, underrepresentation of the seriously ill and those living in institutions must be assumed.

## Data download

Robert Koch Institute. (2024). Results of the National Diabetes Surveillance 2015 – 2024 [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14935276> (in German)

## References

1. WHO Consultation on Obesity (1999: Geneva; Switzerland) & World Health Organization. Obesity : preventing and managing the global epidemic : report of a WHO consultation. Geneva: World Health Organization; 2000 [cited 18.12.2024]. Available from: <https://iris.who.int/handle/10665/42330>
2. World Health Organization (WHO). Global Action Plan for the Prevention and Control of NCDs 2013-2020 [cited 24.05.2019]. Available from: [https://apps.who.int/iris/bitstream/handle/10665/94384/9789241506236\\_eng.pdf?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/94384/9789241506236_eng.pdf?sequence=1)
3. The Federal Government of Germany. German Sustainable Development Strategy. 2018 Update. Berlin: Press and Information Office of the Federal Government; 2018 [cited 18.12.2024]. Available from: <https://www.bundesregierung.de/resource/blob/975274/1588964/1b24acbed2b731744c2ffa4ca9f3a6fc/2019-03-13-dns-aktualisierung-2018-englisch-data.pdf>.

## External links

- ▶ Robert Koch Institute. Information on the German Health Interview and Examination Survey for Adults (DEGS) 2013 [cited 30.01.2025]. Available from: [https://www.rki.de/EN/Topics/Noncommunicable-diseases/Health-surveys/Studies/DEGS/degs\\_content.html?nn=16782096](https://www.rki.de/EN/Topics/Noncommunicable-diseases/Health-surveys/Studies/DEGS/degs_content.html?nn=16782096).
- ▶ Mensink GBM, Schienkiewitz A, Haftenberger M, Lampert T, Ziese T, Scheidt-Nave C. Overweight and obesity in Germany. Results of the German Health Interview and Examination Survey for Adults (DEGS1). Bundesgesundheitsbl. 2013;56(5-6):786-94. <https://doi.org/10.1007/s00103-012-1656-3>.

## Imprint

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