

# Incidence of documented diabetes



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



**Adults**

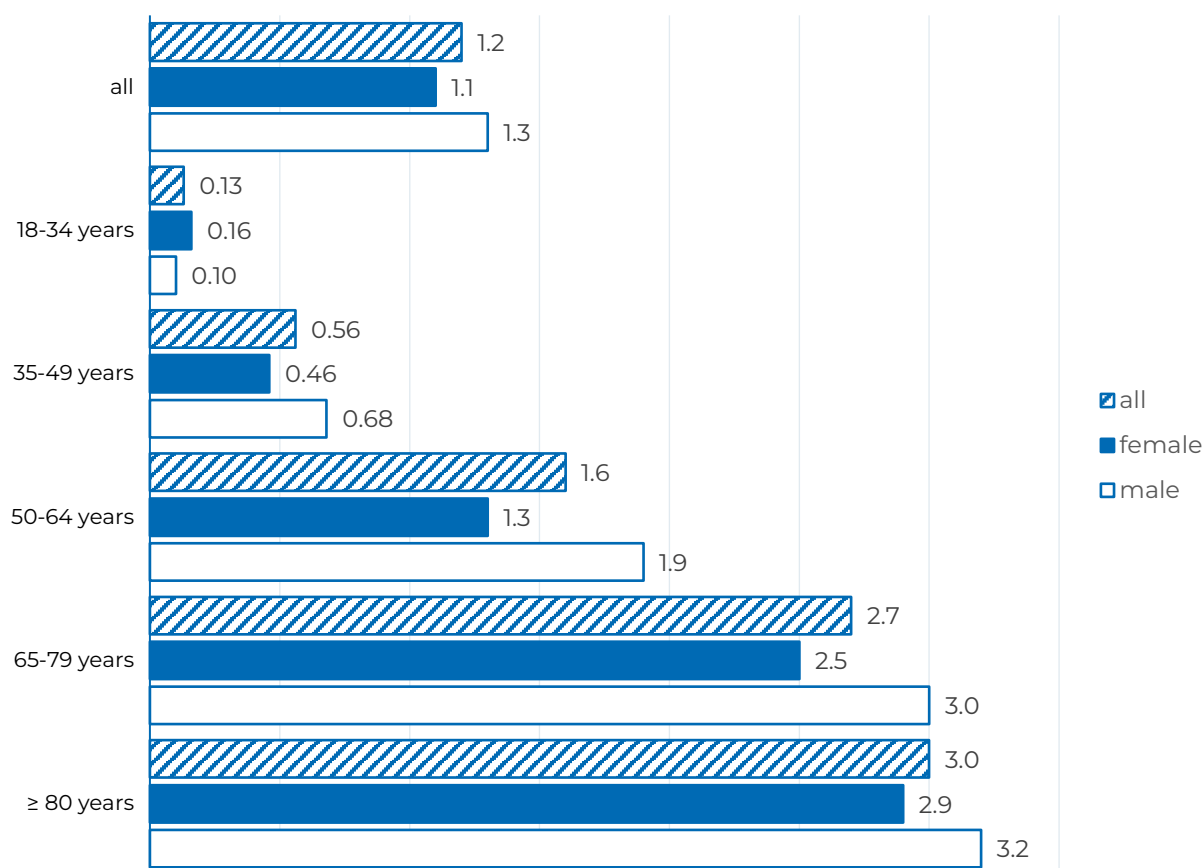
## Background

The rate of new cases (incidence) and the corresponding absolute number of new cases are critical for assessing disease dynamics. Incidence influences the future development of prevalence and the expected number of patients [1]. Incidence itself is dependent on the development of major diabetes risk factors [2].

## Key messages

- ▶ In 2012, around 560,000 people covered by statutory health insurance (SHI) developed diabetes for the first time.
- ▶ Incidence increases with age and peaks in the 80-plus age group.

**Figure 1:** Incidence of documented diabetes among adults covered by statutory health insurance in % by age and sex in 2012.



## Results

In 2012, the incidence of documented diabetes in Germany was 1.2% of all people covered by SHI (women 1.1%; men 1.3%). This is equivalent to 560,762 adults. An analysis by age groups shows that for both men and women, incidence increased with age and peaked in the 80-plus age group.

## Conclusion

Overall, the number of documented new cases increases significantly with age. Generally, the assessment of incidence within the Diabetes Surveillance will help predict changes to the risk of developing the disease. Current results indicate a decrease in the incidence of documented type 2 diabetes [3].

# Methodology and data sources

## Definition

The indicator incidence of documented diabetes is defined as the number of persons with SHI with newly documented diabetes in relation to all persons with SHI in a year without a documented diabetes diagnosis in the previous year. Newly documented diabetes is defined as the presence of at least one inpatient documented diagnosis or at least two outpatient documented diagnoses (E10 – E14) in four quarters.

## Reference population

Adults (18 years and older) are included in the analysis if they have SHI and have been insured for at least 360 days in the respective year, reside in Germany, have their health benefits fully reimbursed by SHI and have no documented diabetes in the preceding year (n = 46.4 million persons).

## Data source

Claims data from all approximately 70 million people with SHI collected in accordance with the Data Transparency Ordinance (DaTraV data).

## Calculation

- ▶ **Observed relative values:** The quotient of the number of people with newly diagnosed diabetes in relation to the entire population with SHI in Germany and without diabetes in the previous year.
- ▶ **Observed absolute values:** Number of persons covered by SHI with newly diagnosed diabetes.

## Data quality

DaTraV data are claims data on all people covered by SHI. DaTraV data include documented outpatient and inpatient diagnoses as well as information on prescribed medications. The quality of claims data from SHI depends on conduct of documentation. DaTraV data do not cover people insured by private health insurance and do not provide information on inpatient or outpatient care.

## 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. Tönnies T, Röckl S, Hoyer A, Heidemann C, Baumert J, Du Y, et al. Projected number of people with diagnosed Type 2 diabetes in Germany in 2040. *Diabet Med.* 2019;36(10):1217–25. doi: 10.1111/dme.13902.
2. Paprott R, Mühlenbruch K, Mensink GB, Thiele S, Schulze MB, Scheidt-Nave C, et al. Validation of the German Diabetes Risk Score among the general adult population: findings from the German Health Interview and Examination Surveys. *BMJ Open Diabetes Res Care.* 2016;4(1):e000280. doi: 10.1136/bmjdr-2016-000280.
3. Goffrier B, Schulz M, Bätzing-Feigenbaum J. Administrative prevalence and incidence of diabetes mellitus in Germany, 2009 -2015. Report No. 17/03. 2017. doi: 10.20364/VA-17.03.

## External links

- ▶ Federal Institute for Drugs and Medical Devices (BfArM). Information on the SHI health data by the health data lab. [cited 19.02.2025]. Available from: <https://www.healthdatalab.de/data>.
- ▶ Schmidt C, Reitzle L, Dreß J, Rommel A, Ziese T, Heidemann C. Prevalence and incidence of documented diabetes based on health claims data - reference analysis for diabetes surveillance in Germany. Bundesgesundheitsbl. 2020; 63(1):93-102. <https://doi.org/10.1007/s00103-019-03068-9>

## Imprint

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