



# Depression in ambulatory care in Germany: recent trends in prevalence and regional variation based on nationwide claims data

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## Abstract

### Background

Depression is a commonly occurring disorder and a major contributor to disease burden. This study presents nationwide data on the time trends of diagnosed depressive disorders in Germany according to age, sex, region, and severity of diagnosis. Trends in coding of unspecified diagnoses were also investigated.

### Methods

The study was based on all ambulatory physician billing claims from 2009–2017 from all residents with statutory health insurance in Germany, covering 87% of the total German population. The study population was restricted to persons aged  $\geq 15$  years (62.5 million patients in 2017). Patients with at least one documented ICD-10 diagnosis of F32, F33 or F34.1 were considered cases of depressive disorder. The diagnostic prevalence of depressive disorders was computed for each year according to age, sex, region, and severity of depressive disorder and for the group of unspecified diagnoses. On the level of diagnoses, we investigated the proportion of diagnoses documented by groups of physicians (general practitioners, mental health specialists and others).

### Results

The diagnostic prevalence of depressive disorders increased from 12.5% in 2009 to 15.7% in 2017 (+26%). The increase was more pronounced among men compared to women (+40% vs. +20%), in young adults compared to older persons, in Eastern compared to Western federal states (+37% vs. +24%), and in rural compared to urban regions (+34% in rural areas vs. +25% in big urban municipalities). Nevertheless, big urban municipalities still showed the highest diagnostic prevalence in 2017 compared to less densely populated regions (17.3% vs. 15.5% in rural areas with low population density). The prevalence in Eastern and Western states was 13.9% (+41%) and 15.9% (+23%) in 2017, respectively. Across the 402 administrative districts, variation decreased over time. The variation coefficient declined from 15% to 13% and the ratio of the highest prevalence to the lowest prevalence decreased from 3.1 to 2.3. The coding frequency of unspecified diagnoses declined over time, particularly in the group of general practitioners. In 2009, 77% of all depression diagnoses documented by general practitioners were unspecified, while 50% were unspecified in 2017.

### Conclusions

Overall, the study highlights a growing significance of depressive disorders in ambulatory care in Germany. It also demonstrates a reduction of regional and sex disparities as well as a decrease in the documentation of unspecified diagnoses.

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#### Keywords

Depressive disorders, diagnostic prevalence, claims data

#### Citation

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