

*Brief report*

Administrative prevalence and incidence of diagnosed type 2 diabetes mellitus – data from 2011 to 2023

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Abstract

Background

The public health relevance of diabetes mellitus has been recognized for decades and continues to grow in urgency. Both globally and in Germany, there are frequent reports of increasing numbers of affected individuals, with approximately 8.9 million people in Germany diagnosed in 2023. Type 2 diabetes mellitus accounts for over 90% of these cases. The rise in diabetes cases is attributed to demographic changes and the increasing prevalence of unhealthy lifestyles. Diabetes mellitus not only reduces the quality of life and productivity-adjusted lifespan of those affected but also places a growing burden on the German healthcare system. Regional differences in the incidence and prevalence of diabetes mellitus have been reported. To highlight current developments and regional differences, this report provides an update on the diabetes mellitus report of 2017, focusing on type 2 diabetes.

Methods

Data from statutory health insurance billing records (2011-2023) from the Associations of Statutory Health Insurance Physicians (KV) were used, including individuals with at least one outpatient doctor visit per year. Prevalent cases are identified by a confirmed diagnosis in at least two quarters of a year and is shown for the years 2011-2023. Incident cases are those without a diagnosis in the previous three years and with an additional confirmed diagnosis in the three quarters following the incidence quarter. Annual cumulative incidence is presented for 2014-2022. The results are shown at federal, KV, and district levels.

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Results

The prevalence of type 2 diabetes increased from 9.12% in 2011 to 9.56% in 2016, fluctuated slightly, and then generally declined until 2022. In 2023, the nationwide prevalence was 9.48%, slightly higher than in 2022 and nearly at the 2016 peak. The relative increase from 2011 to 2023 was 4%, with 7,030,488 prevalent cases in 2023. There were regional differences in prevalence percentages, with the highest in eastern KV regions and the lowest in Schleswig-Holstein and Hamburg. Trends varied, with eastern regions showing a slight decline and western regions showing an increase.

Between 2014 and 2018, the incidence of type 2 diabetes in Germany decreased from 0.87% to 0.78%, then increased again, except for a drop in 2020. By 2022, the incidence returned to 0.87%, a 16.3% increase from 2020. In 2022, there were 508,879 new cases. Regional differences showed the highest incidence in Saxony-Anhalt and Saarland, and the lowest in Schleswig-Holstein. The incidence trends varied by region, with some areas showing decreases and others increases.

Discussion

This update provides current data on the prevalence and incidence of type 2 diabetes in Germany. The prevalence stabilized around 2018 but saw a slight increase in 2023. Incidence decreased before 2018 but has risen again, especially among those aged 50 and older. The drop in 2020 is likely due to fewer doctor visits during the COVID-19 pandemic. Regional differences, particularly higher rates in eastern Germany, align with other studies and may be due to socioeconomic and environmental factors.

Keywords

diabetes mellitus, incidence, prevalence, type 2 diabetes.

Citation

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