# SHI-physicians ambulatory health care for COVID-19 in a nationwide regional comparison (Part 2)

# The 2nd and 3rd pandemic wave in Germany

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# **Abstract**

### **Background**

The aim of the present work is to systematically and comprehensively review the outpatient SHI physicians' medical care of patients with COVID-19 (coronavirus disease 2019) in Germany during the 2nd and 3rd wave of the pandemic from the end of 2020 to mid-June 2021 and in the subsequent decay phase until September 2021. This report updates the first part focusing on the 1st pandemic wave.

#### **Methods**

The data basis of the present evaluations are the nationwide claims data of the Associations of Statutory Health Insurance Physicians of all contract medical practices of physicians and psychotherapists in Germany in the period between October 2020 and September 2021 in accordance with Section 295 of the Fifth Book of the Social Code (SGB V) (n = 71,547,532 insured persons). Patients with a COVID-19 diagnosis were identified using the diagnosis code U07.1[!] according to ICD-10-GM (International Statistical Classification of Diseases and Related Health Problems - German Modification) and the additional code G (confirmed diagnosis). In addition, patients with additional codes for COVID-19 and, in addition to part 1 of the report, patients with post-COVID symptoms were recorded. Publicly available case number data from COVID-19 patients in accordance with the Infection Protection Act (IfSG) are compared with the COVID-19 patient numbers from SHI-physicians' medical care.

#### Results

A total of 2,358,093 patients with laboratory-confirmed COVID-19 diagnoses were treated. The nationwide prevalence was 3.3% in the 2nd and 3rd waves, significantly higher than in the 1st wave (1st to 3rd quarter of 2020; 0.4%). The number of COVID-19 cases according to the notification data (n = 3,954,175) according to the IfSG was significantly higher than the number of outpatient COVID-19 patients. Post-COVID status was diagnosed in 8.65% (95% confidence interval [95% CI]: 8.61–8.68) of COVID-19 patients; in relation to the number of COVID-19 cases reported in accordance with the IfSG, the proportion was 7.62% (95% CI: 7.59-7.64). Of the post-COVID patients, about two-thirds had a COVID-19 diagnosis. In the patient subpopulation with a diagnosis of COVID-19 and post-COVID

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status, the proportions of risk groups 2 and 3 (age ranges 60-79 years and 15-59 years, respectively, with specific constellations of previous illnesses) were slightly higher than in patients in whom only the diagnosis COVID-19 was encoded. As part of the spatial cluster analysis, a large cluster with a total of 28 districts in Saxony and Thuringia radiating to Brandenburg and two smaller clusters in Baden-Württemberg (two and four districts) were found, in which neighboring districts each had a high diagnosis prevalence, as well as several other clusters in which neighboring districts each showed low prevalences.

#### **Conclusions**

The total number of COVID-19 patients in medical care corresponded to an administrative prevalence of 3.3% and only accounted for around three fifths of the COVID-19 case numbers according to the reporting data according to the IfSG. In contrast to the 1st pandemic wave, this suggests that many COVID-19 infections did not lead to contacts with SHI-physicians' medical care.

#### **Keywords**

COVID-19, diagnosis prevalence, Germany, SHI-physicians health care, infectious disease notification, protection against infection act, laboratory testing, prevalence, SARS-CoV-2

# Citation

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