



Coronavirus Disease 2019 (COVID-19)

Daily Situation Report by the Robert Koch Institute

21/01/2022- CURRENT STATUS FOR GERMANY

Confirmed cases		7-day incidence (7-di)		DIVI-Intensive care registry as of 20/01/2022 12:15 AM	Vaccination monitoring as of 21/01/2022
Total ¹	active cases ²	Total population	No. of districts with 7-di > 50/100,000 pop.	Change to previous day for no. of cases currently in ICU	No. of vaccinations reported in last 24h
+140,160 (8,460,546)	+101,900 [ca. 1,166,100]	706.3 cases/100,000 pop.	±0 [411/411]	-124 [2,447]	1st vaccination: +53,011 2nd vaccination: +92,065 Booster vaccination: +495,098
Hospitalised ¹	Recovered ³	Hospitalised (all age groups)	No. of districts with 7-di > 500/100,000 pop.	% of COVID-19 occupancy in total number of operable beds ⁴	Total no. of people fully vaccinated against COVID-19 ^{5, 6, 7}
+1,019 (398,257)	+38,100 (ca. 7,178,000)	3.77 cases/100,000 pop.	+32 [286/411]	10.9 %	N1: 62,652,995 N2: 60,859,244 N3: 41,212,549
Deaths ¹		Hospitalised aged 60 years +	No. of districts with 7-di > 1000/100,000 pop	No. of new cases in ICU compared to the previous day	Share of population fully vaccinated against COVID-19
+170 (116,485)		5.92 cases/100,000 pop.	+24 [49/411]	+139	N1: 75.3 % ⁵ N2: 73.2 % ⁶ N3: 49.6 % ⁷

Numbers in () brackets show cumulative values, numbers in [] brackets show current values. Footnotes can be found in the Annex.

COVID-19 cases are notified to the local public health authorities in the respective districts, in accordance with the German Protection against Infection Act (IfSG). The data are further transmitted through the respective federal state health authority to the Robert Koch Institute (RKI). This situation report presents the uniformly recorded nationwide data on laboratory-confirmed COVID-19 cases transmitted to RKI.

– Changes since the last report are marked **blue** in the text –

Summary (as of 21/01/2022, 10:00 AM)

- Yesterday, **140,160** new laboratory-confirmed COVID-19 cases as well as **170** new deaths associated with COVID-19 were transmitted to the RKI in Germany. The national 7-day incidence is **706.3** cases per 100,000 population. The 7-day incidence in federal states lies between **1,258.7** cases per 100,000 population in **Bremen** and **264.5** per 100,000 population in **Thuringia**.
- Overall, **+1,019** new hospitalisations with COVID-19 were reported, the 7-day incidence of hospitalised cases is **3.77** per 100,000 population.
- On **20/01/2022** (12:15 AM), **2,447** COVID-19 patients were in intensive care units (ICU), **-124** cases compared to the day before. The COVID-19 adult occupancy as a percentage of all operational adult intensive care beds is **10.9 %**.⁴
- Since 26/12/2020, **161,131,839** vaccine doses have been administered in Germany. Overall, **75.3 %** of the population in Germany have been vaccinated at least once.⁵ **73.2 %** have received a complete course of vaccination against COVID-19.⁶ **49.6 %** have received a booster vaccination.⁷

Epidemiological Situation in Germany (as of 21/01/2022, 0:00 AM)

Since January 2020, a total of **8,460,546 (+140,160)** laboratory-confirmed cases of COVID-19 have been reported to and validated by the RKI (Table 1). The geographical distribution of cases of the last 7 days is shown in Figure 1. Please see the COVID-19 dashboard (<https://corona.rki.de/>) for information on the number of COVID-19 cases by county (local health authority).

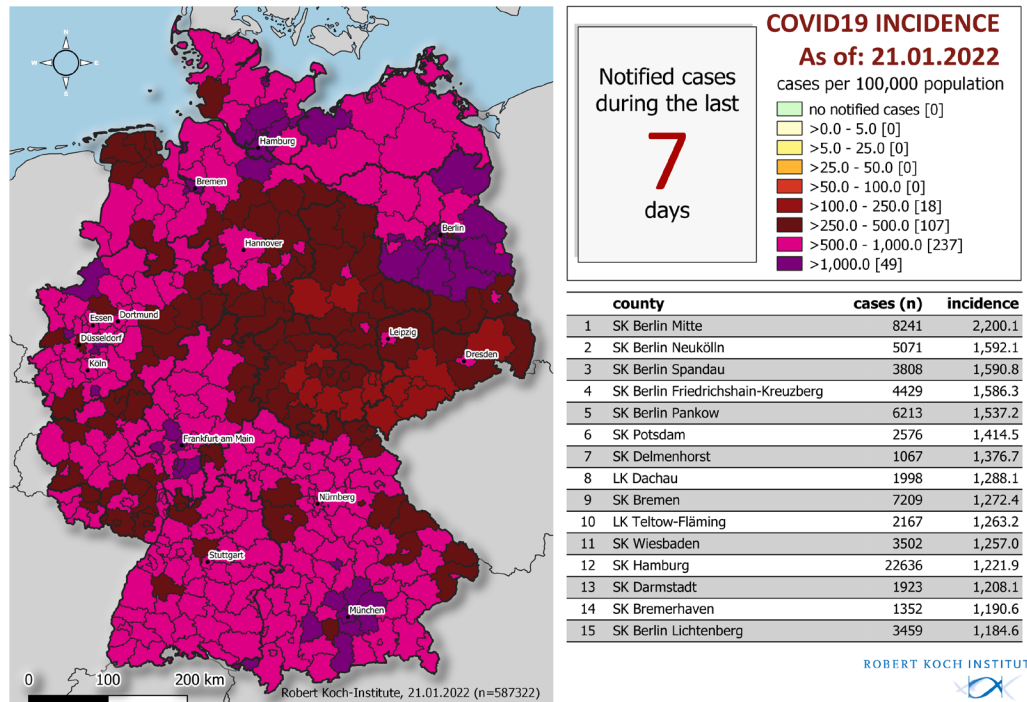


Figure 1: Number and cumulative incidence (per 100,000 population) of reported COVID-19 cases in Germany by county and federal state (n=587,322, 21/01/2022, 12:00 AM). Cases are usually reported according to the district from which they were transmitted. This usually corresponds to the place of residence. Place of residence and probable place of infection do not have to coincide.

Table 1: Number and cumulative incidence (per 100,000 population) of laboratory-confirmed COVID-19 cases, hospitalizations and deaths for each federal state electronically reported to RKI, Germany (21/01/2022, 12:00 AM). The number of new cases includes cases newly notified to the local public health authority, but also on prior days.

Federal State	Cumulative cases			Last 7 days			Cumulative deaths	
	Number of cases	Number of new cases	Cases/100,000 pop.	Cases	Cases/100,000 pop.	Hospitalisations/100,000 pop.	Number of deaths	Deaths/100,000 pop.
Baden-Wuerttemberg	1,181,003	17,145	10,637	74,081	667.2	3.95	13,498	122
Bavaria	1,530,077	25,022	11,644	99,203	755.0	3.51	20,266	154
Berlin	437,562	10,678	11,942	46,107	1,258.3	2.95	4,077	111
Brandenburg	292,191	6,223	11,544	23,479	927.6	3.32	4,957	196
Bremen	72,063	1,281	10,595	8,561	1,258.7	17.06	629	92
Hamburg	193,422	6,414	10,441	22,636	1,221.9	4.64	2,059	111
Hesse	588,664	13,193	9,354	52,090	827.7	4.24	8,716	138
Mecklenburg-Western Pomerania	124,210	2,123	7,711	10,663	662.0	4.90	1,603	100
Lower Saxony	543,564	11,332	6,792	45,715	571.2	2.91	7,039	88
North Rhine-Westphalia	1,655,625	27,624	9,236	122,037	680.8	3.20	20,866	116
Rhineland-Palatinate	328,837	5,542	8,024	22,395	546.4	4.47	4,760	116
Saarland	88,103	1,882	8,954	6,903	701.5	2.74	1,313	133
Saxony	690,899	3,169	17,030	13,760	339.2	2.34	13,912	343
Saxony-Anhalt	245,325	1,903	11,250	7,977	365.8	3.99	4,524	207
Schleswig-Holstein	180,934	5,389	6,216	26,106	896.8	6.29	1,932	66
Thuringia	308,067	1,240	14,530	5,609	264.5	5.24	6,334	299
Total	8,460,546	140,160	10,174	587,322	706.3	3.77	116,485	140

Quality checks and data cleaning by the local health departments and federal state health authorities can lead to corrections to cases previously transmitted (e. g. detection of duplicate reports). This can occasionally lead to negative values for the number of new cases.

Figure 2 shows the course of the COVID-19 cases per 100,000 population transmitted to the RKI on the last 7 days in each of the federal states and in all of Germany. The values for the 7-day incidence in the federal states range from 1,258.7 per 100,000 population in Bremen to 264.5 per 100,000 population in Thuringia.

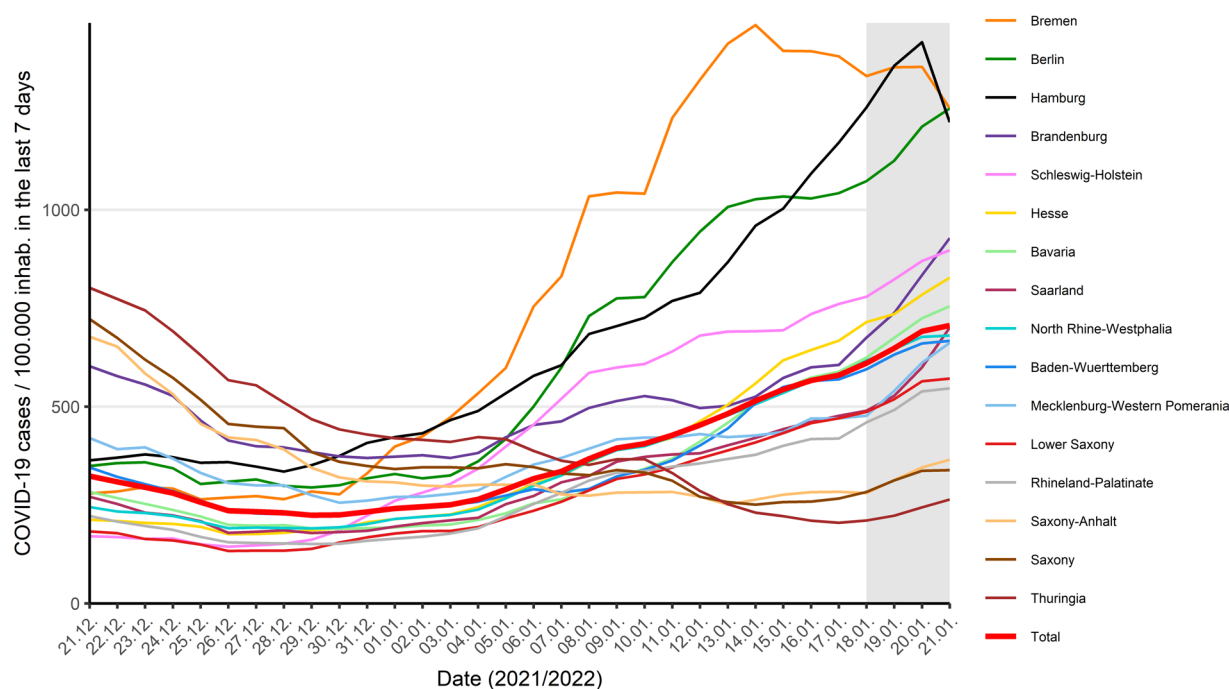


Figure 2: COVID-19 cases/100,000 inhabitants during 7 days in Germany by federal state and reporting date in the health offices (21/01/2022, 0:00 AM). The grey area delineates a range of dates with yet incomplete data, where changes in incidence are likely to occur.

Estimation of the reproduction number (R), taking into account the reporting delay (Nowcasting)

Figure 3 shows the course of estimated 7-day R-value.

7-day R-value
1.15
(95%-prediction interval: 1.05 – 1.23)

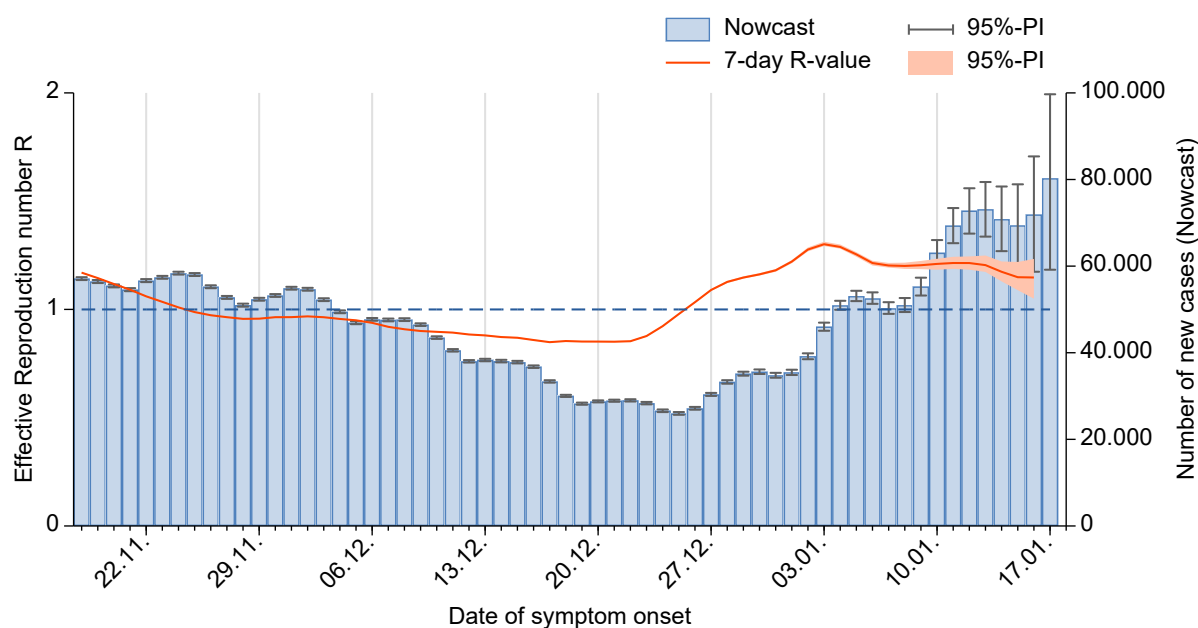


Figure 3: Estimated 7-day R-value (in orange) over the last 60 days, against the background of estimated number of COVID-19 cases according to illness onset (as of 21/01/2022, 12 AM, taking into account cases up to 17/01/2022).

The COVID-19 epidemic in Germany is increasingly dominated by the Omicron variant. This variant differs in some characteristics from the previously dominant variants, in particular it probably has a shorter incubation period [1] and also a shorter generation time [2]. This could also influence the estimation of the R-value in Germany, which was previously performed assuming a constant generation time of 4 days. For shorter generation times, the estimated R-values would be closer to 1. Currently, R values continue to be estimated assuming a generation time of 4 days. If the shorter generation time of Omicron is confirmed, the estimate of the R-value will be adjusted accordingly.

Sample calculations as well as an excel sheet presenting the daily updated R-value can be retrieved under www.rki.de/covid-19-nowcasting. A detailed description of the methodology is available at https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/17/Art_02.html (Epid. Bull. 17 | 2020 from 23/04/2020).

Annex:

Notes on data collection and evaluation

The data presented in this situation report represent a temporal snapshot. Information on individual cases can be obtained and added by the health authorities in the course of the disease. It is not possible to obtain complete data for all variables.

If necessary, the local public health authorities collect additional information, evaluate reported cases and initiate the necessary infection control measures. In accordance with the Infection Protection Act, the data are transmitted electronically by the local public health authorities to the federal state health authority and from there to the RKI on the next working day at the latest. The data is updated at the RKI daily at 0:00 AM.

Data entry and data transmission can lead to a time lag from the time the case is reported to the local public health authorities until publication by the RKI, so case numbers may deviate from those from other sources.

For the calculation of the incidences, the data of the population statistics of the Federal Statistical Office from 31.12.2020 are used. The calculation of the 7-day incidence is based on the reporting date, i.e. the date on which the local public health authorities became aware of the case and recorded it electronically. For the 7-day incidence, the cases reported on the last 7 days are counted.

On the other hand, the number of cases since the previous day, as shown in the situation report and dashboard, is tied to the date when the case is first published in the RKI's reporting. Thus, due to transmission delays, it may occur that cases with a reporting date more than 7 days ago are still included in the situation report. At the same time, the number of cases since the previous day also may contain cases that were subsequently deleted in data quality checks. Thus, the 7-day incidence cannot be readily calculated from these single-day incidences.

References

[1] Jansen L, Tegomoh B, Lange K, et al. "Investigation of a SARS-CoV-2 B.1.1.529 (Omicron) Variant Cluster — Nebraska, November–December 2021." *MMWR Morb Mortal Wkly Rep* 2021;70:1782–1784. DOI: <http://dx.doi.org/10.15585/mmwr.mm705152e3>external icon

[2] Dasom Kim, Jisoo Jo, Jun-Sik Lim, Sukhyun Ryu "Serial interval and basic reproduction number of SARS-CoV-2 Omicron variant in South Korea". *MedRxiv*, DOI: <https://doi.org/10.1101/2021.12.25.21268301>.

Notes

- 1 The number of cases since the previous day refers to the date of receipt at the RKI; due to the delay in transmission, cases from previous days may be included.
- 2 The number of active cases results from the number of transmitted cases minus the deaths and the estimated number of recovered cases.

- 3 The algorithm for estimating the number of people who have recovered assumes an average duration of illness from onset or hospitalization date on. The true length of symptomatic illness and/or sequelae are usually not available in the reporting system.
- 4 Proportion of COVID-19 occupancy by adults out of all available adult intensive care beds.
- 5 The total number of persons vaccinated at least once results from the number of reports coded as first vaccination in the transmitted vaccination data.
- 6 According to specifications for vaccination data transmission, every second vaccination or first vaccination after recovery is to be transmitted with the code as a complete vaccination. A vaccination with the Janssen vaccine is coded and transmitted as a first vaccination, but is also counted as completed vaccination series.
- 7 The total number of persons with booster vaccination results from the number of reports coded as booster vaccination in the transmitted vaccination data.