



Coronavirus Disease 2019 (COVID-19)

Daily Situation Report of the Robert Koch Institute

01/11/2020 - UPDATED STATUS FOR GERMANY

Total (cumulative)		Previous 7 days	
Confirmed cases	Deaths	Confirmed cases	7-day incidence
532,930 (+14,177*)	10,481 (+29*)	95,312 (+3,062*)	114,6 cases/ 100,000 pop.
Proportion of deaths	Recovered	7-day incidence of people ≥ 60 years	No. of districts with 7- day incidence > 50
2.0%	ca. 355,900** (+4,800**)	75.1 cases/ 100,000 pop.	351 (+10*)

*Change from previous day; **Estimate

COVID-19 cases are notified to the local public health department 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 01/11/2020, 12:00 AM)

- Currently, an accelerated increase of transmissions in the population in Germany can be observed. Therefore, the entire population is strongly encouraged to commit itself to infection prevention and control.
- The nationwide incidence over the past 7 days increased further to **114.6** cases per 100,000 population.
- Since the beginning of September, the proportion of cases in older age groups has been increasing again. The 7-day incidence of people ≥ 60 years **has further increased to** currently **75.1** cases/100.000 population.
- The 7-day incidence in Bavaria, Berlin, Bremen, Hesse, North Rhine-Westphalia and **Saarland** is higher than the national total 7-day incidence.
- The number of districts with an increased 7-day incidence of >25 cases/ 100,000 inhabitants continues to rise. Only **6** districts have an incidence ≤25 cases/100,000 population. As of today, **154** districts have an incidence of >50-100 cases/100,000 population, **197** districts have an incidence of >100 cases/100,000 population and **of these, 23** districts have an incidence of >200 cases/100,000 population.
- The nationwide increase is caused by increasingly diffuse transmission, with **numerous** clusters in connection with private gatherings, celebrations or public events, but also in educational settings, nursing and long-term care homes, as well as in occupational settings or related to religious events.
- The number of COVID-19 patients requiring intensive care has **almost tripled** in the past 2 weeks from **769** patients on **18/10/2020** to **2,061** patients on **01/11/2020**.
- In total, **532,930** laboratory-confirmed COVID-19 cases and **10,481** deaths associated with COVID-19 have been transmitted to the RKI in Germany.

Epidemiological Situation in Germany

In accordance with the international standards of WHO¹ and ECDC², RKI considers all laboratory confirmations of SARS-CoV-2, irrespective of the presence and severity of clinical symptoms, as COVID-19 cases. Thus, in the following report the term "COVID-19 cases" covers acute SARS-CoV-2 infections as well as cases of COVID-19 disease.

General current assessment

After a temporary stabilisation of case numbers at a higher level in late August and early September, there is currently an increase of transmission within the population in all federal states. The proportion of COVID-19 cases in older age groups is currently increasing. The reported R-values have been stable since the beginning of October, well above 1. Since the beginning of this week, a slight downward trend has been observed.

There are outbreaks in various districts throughout Germany, which are associated with different situations, including large celebrations in the family and circle of friends, in occupational settings, and in old people's and nursing homes. In addition, in many districts there is an increasingly diffuse spread of SARS-CoV-2, without traceable transmission chains.

It is therefore still necessary for the entire population to be committed to infection prevention and control, e.g. by consistently observing rules of distance and hygiene - also outdoors -, by ventilating indoor spaces and, where indicated, by wearing a community mask correctly. Crowds of people - especially indoors - should be avoided.

¹ World Health Organization, https://www.who.int/publications/i/item/WHO-2019-nCoV-Surveillance_Case_Definition-2020.1

² European Centre for Disease Prevention and Control, <https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition>

Geographical distribution of cases

Epidemiological analyses are based on validated cases notified electronically to the RKI in line with the Protection Against Infection Law (Data closure: 12:00 AM daily). Since January 2020, a total of **532,930 (+14,177)** laboratory-confirmed cases of COVID-19 have been reported to and validated by the RKI (Table 1).

Table 1: Number and cumulative incidence (per 100,000 population) of laboratory-confirmed COVID-19 cases and deaths for each federal state electronically reported to RKI, Germany (01/11/2020, 12:00 AM). The number of new cases includes positive cases notified to the local health department at the same day, but also at previous days.

Federal State	Total number of cases	Number of new cases*	Cases/100,000 pop.	Cases in the last 7 days	7-day incidence per 100,000 pop.	Number of deaths	Number of deaths/100,000 pop.
Baden-Wuerttemberg	82,334	2,101	742	12,585	113.4	2,029	18.3
Bavaria	107,044	2,280	816	16,175	123.2	2,808	21.4
Berlin	32,231	791	878	6,025	164.2	261	7.1
Brandenburg	8,088	257	321	1,333	52.9	195	7.7
Bremen	5,522	191	811	1,204	176.7	72	10.6
Hamburg	13,753	396	745	1,861	100.7	285	15.4
Hesse	42,072	1,074	669	9,361	148.9	654	10.4
Mecklenburg-Western Pomerania	2,865	83	178	707	44.0	23	1.4
Lower Saxony	36,949	1,007	462	6,260	78.3	748	9.4
North Rhine-Westphalia	136,116	3,637	758	26,430	147.3	2,145	12.0
Rhineland-Palatinate	20,574	471	503	3,970	97.0	285	7.0
Saarland	6,740	491	683	1,413	143.2	192	19.5
Saxony	17,974	778	441	3,950	97.0	322	7.9
Saxony-Anhalt	5,204	137	237	1,164	53.0	79	3.6
Schleswig-Holstein	8,293	265	286	1,564	53.9	175	6.0
Thuringia	7,171	218	336	1,310	61.4	208	9.7
Total	532,930	14,177	641	95,312	114.6	10,481	12.6

*Quality checks and data cleaning by the health authorities and regional offices 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.

Distribution of cases over time

The first COVID-19 cases in Germany were notified in January 2020. Figure 1 shows COVID-19 cases transmitted to RKI according to date of illness onset from 01/03/2020 onwards. Of these cases, the onset of symptoms is unknown for 254,174 cases (48%) thus their date of reporting is provided in Figure 1.

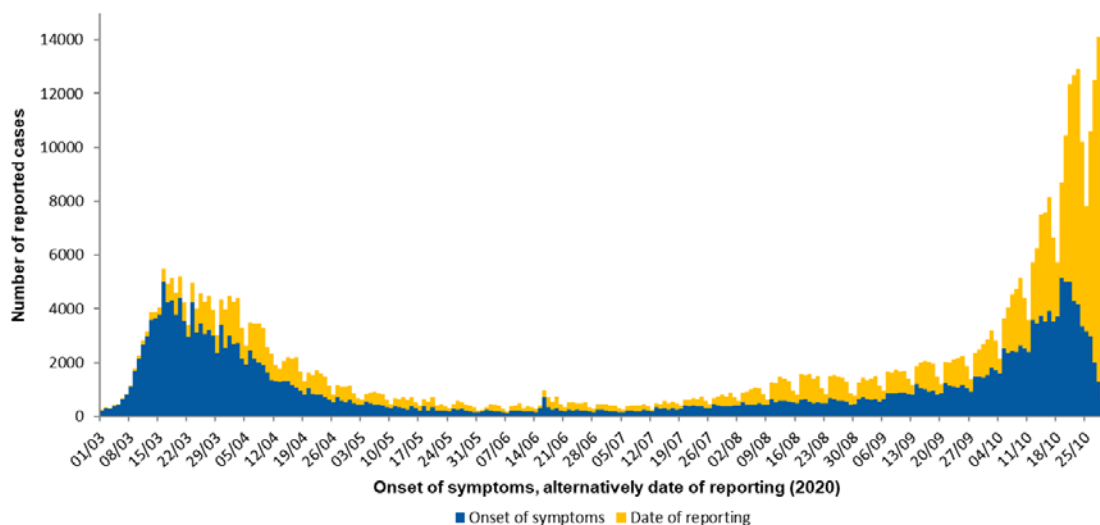


Figure 1: Number of COVID-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or – if unknown – alternatively by date of reporting since 01/03/2020 (01/11/2020, 12:00 AM).

Occupation, accommodation or care in facilities

In accordance with the Protection Against Infection Act (Infektionsschutzgesetz, IfSG), the RKI receives information on occupation, accommodation or care in a facility relevant for infection control for reported COVID-19 cases.

Since information on occupation, accommodation or care in these facilities is missing in 46% of cases, the numbers of cases working, accommodated or cared for in these facilities reported here should be considered minimum values. Among the COVID-19 cases reported from the above mentioned facilities, the proportion of cases that actually acquired their infection in these facilities is unknown.

The number of COVID-19 cases was highest among persons cared for or employed in care facilities according to § 36 IfSG, among persons employed in medical facilities according to § 23 IfSG and among persons cared for in educational facilities according to § 33 IfSG (Table 2). The number of deaths was particularly high among persons cared for in facilities according to §§ 23 and 36.

Among the cases reported as working in medical facilities (§ 23 IfSG), 73% were female and 27% male. Their median age was 40 years. The high number of cases among people cared for or working in various care facilities (§ 36 IfSG) is consistent with numerous reported outbreaks, especially in nursing homes. The high number of cases among persons working in the food sector (§ 42 IfSG) is largely due to outbreaks in meat processing plants.

Table 2: Notified COVID-19-cases according to possible occupation, accommodation or care in facilities relevant for transmission of infectious diseases according to the Protection Against Infection Act (IfSG), reported to RKI (529,407* cases, no data available for 245,252 cases; 01/11/2020, 12:00 AM)

Facility according to		Total	Hospitalised	Deaths	Recovered (estimate)
§ 23 IfSG (e.g. hospitals, outpatient clinics and practices, dialysis clinics or outpatient nursing services)	Cared for / accommodated in facility	5,269	3,451	764	3,900
	Occupation in facility	19,300	764	24	17,800
§ 33 IfSG (e.g. day care facilities, kindergartens, facilities for after school care, schools or other educational facilities, children's homes, holiday camps)	Cared for / accommodated in facility*	14,832	195	1	12,400
	Occupation in facility	7,215	246	8	6,100
§ 36 IfSG (e.g. facilities for the care of older, disabled, or other persons in need of care, homeless shelters, community facilities for asylum-seekers, repatriates and refugees as well as other mass accommodation and prisons)	Cared for / accommodated in facility	23,282	4,742	3,910	17,500
	Occupation in facility	13,019	518	44	12,000
§ 42 IfSG (e.g. meat processing plants or kitchens in the catering trade, in inns, restaurants, canteens, cafés, or other establishments with or for communal catering)	Occupation in facility	7,723	296	5	7,200
Neither cared for, accommodated in nor working in a facility		193,515	21,844	3,934	166,600

*for care according to § 33 IfSG only cases under 18 years of age are taken into account, as other information may be assumed to be incorrect. Due to changes in data registration, not all data entries for cases ascertained in the most recent version of the surveillance software could be taken into account. This will be corrected in the coming days.

Outbreaks

An increased incidence of >25 cases in 7 days/100,000 population was reported for **almost every** district (**406 of 412**), including **197** urban and rural districts with an incidence of over 100 cases/100,000 population and **154** districts with a 7-day incidence of >50 -100 cases/100,000 population. The dashboard (<https://corona.rki.de>) shows all affected districts.

The nationwide increase is caused by increasingly diffuse transmission, with a large number of clusters in connection with private gatherings, celebrations or public events, but also in educational settings, and nursing and long-term care homes, as well as in occupational settings or related to religious events.

In most districts, transmission is diffuse, with numerous outbreaks related to celebrations with family and friends, but also increasingly occurring in educational settings and retirement and nursing homes. In a few districts, larger outbreaks have been the cause for marked increases in COVID-19 cases. Numerous smaller outbreaks also continue to be reported in hospitals and facilities for asylum seekers and refugees, community facilities, various occupational settings and in the context of religious gatherings, all contributing to the increasing incidence.

Estimation of the reproduction number (R)

The reproduction number, R, is defined as the mean number of people infected by one infected person. R can only be estimated based on statistical analyses such as nowcasting (Figure 2) and not directly extracted from the notification system.

4-day R-value	7-day R-value
1.13	1.13
(95%-prediction interval: (0.88 - 1.33))	(95%-prediction interval: 1.00 – 1.24)

Delays in reporting of case numbers at weekend days can lead to cyclical fluctuations of the 4-day R-value. The 7-day R-value is less affected because all week days are used to determine the value.

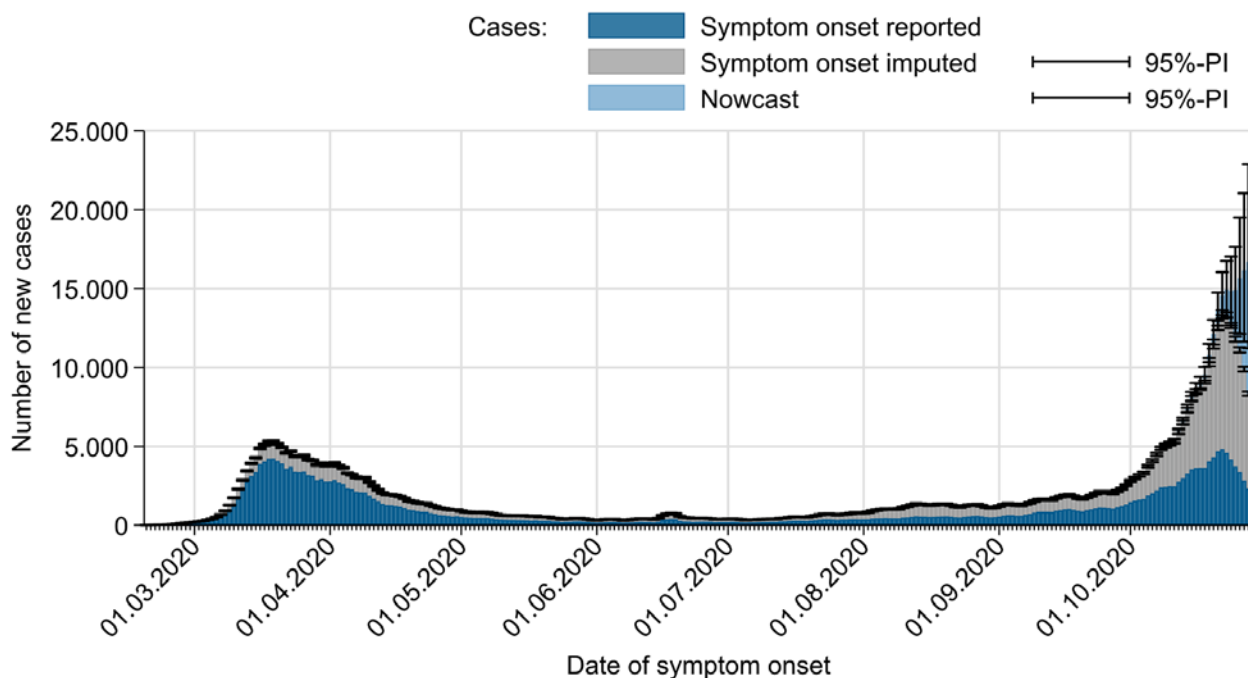


Figure 2: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 01/11/2020, 12 AM, taking into account cases up to 28/10/2020).

The reported R-values have been stable since the beginning of October, well above 1. Since the beginning of this week, a slight downward trend has been observed.

Sample calculations as well as an excel sheet presenting both R-values with daily updates can be found 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).

DIVI intensive care register

The German Interdisciplinary Association for Intensive and Emergency Medicine (DIVI) has in collaboration with RKI established a registry to document the number of available intensive care beds as well as the number of COVID-19 cases treated in participating hospitals on a daily basis. Since 16/04/2020, all hospitals with intensive care beds are required to report (<https://www.intensivregister.de/#/intensivregister>).

As of 01/11/2020, a total of 1,282 hospitals or departments reported to the DIVI registry. Overall, 28,920 intensive care beds were registered, of which 20,950 (72%) are occupied, and 7,970 (28%) are currently available. The number of COVID-19 cases treated in participating hospitals is shown in Table 3.

Table 3: COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (01/11/2020, 12:15 PM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	2,061		+117
- of these: with invasive mechanical ventilation	1,086	53%	+82
Discharged from ICU	21,051		+176
- of these: deaths	4,752	23%	+48

*The interpretation of these numbers must take into account the number of reporting hospitals and therefore the number of reported patients may change from day to day. On certain days, this can explain an occasionally important decrease or increase in the cumulative number of discharged patients or deaths compared with the day before.

Risk Assessment by the RKI

In view of the recent further increase in case numbers, the risk assessment of the RKI was adapted to the epidemiologic situation on 26/10/2020. The current version can be found here:

<https://www.rki.de/EN/Content/infections/epidemiology/outbreaks/COVID-19/Risk-assessment.html>

Measures taken in Germany

- National Testing Strategy – who will be tested for SARS-CoV-2 in Germany (14/10/2020) (*in German*)
https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Teststrategie/Nat-Teststrat.html
- SARS-CoV-2 test criteria for schools during the COVID 19 pandemic (12/10/2020) (*in German*)
https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Teststrategie/Testkriterien-Schulen.pdf
- Preventive measures in schools during the COVID 19 pandemic (12/10/2020) (*in German*)
- https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Praevention-Schulen.pdf
- Selected and regularly updated information on COVID-19 in English
<https://www.rki.de/EN/Content/infections/epidemiology/outbreaks/COVID-19/COVID19.html>
- Information on the designation of international risk areas
https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Risikogebiete_neu.html
- The ministry of health has published a record of all measures implemented in Germany since 27/01/2020 (*in German*)
<https://www.bundesgesundheitsministerium.de/coronavirus/chronik-coronavirus.html>
- Information from the Ministry of Health for travellers entering Germany: Frequently asked questions and answers (*in German*)
<https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/faq-tests-einreisende.html>
- Corona-Warn-App
<https://www.rki.de/EN/Content/infections/epidemiology/outbreaks/COVID-19/CWA/CWA.html>
- Orders concerning travel after the determination of an epidemic situation of national significance by the German Bundestag (29/09/2020)
https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Transport/BMG_Merkblatt_Reisende_Tab.html
- Information on additional regulations at the regional level regarding control measures such as physical distancing or quarantine regulations for persons entering from other countries can be

accessed here: *(in German)*

<https://www.bundesregierung.de/breg-de/themen/coronavirus/corona-bundeslaender-1745198>

- Data on current disease activity can be found on the RKI dashboard:
<https://corona.rki.de/>
- A distance of 1.5 metres to other individuals must be maintained in public spaces: *(in German)*
<https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundestkanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248>
- (Non-medical) face masks must be worn on public transport and in shops in all federal states.