



Coronavirus Disease 2019 (COVID-19)

Daily Situation Report of the Robert Koch Institute

30/10/2020 - UPDATED STATUS FOR GERMANY

Total (cumulative)		Previous 7 days	
Confirmed cases	Deaths	Confirmed cases	7-day incidence
499,694 (+18,681*)	10,349 (+72*)	87,215 (+4,893*)	104.9 cases/ 100,000 pop.
Proportion of deaths	Recovered	7-day incidence of people ≥ 60 years	No. of districts with 7- day incidence > 50
2.1%	ca. 345,700** (+6,500**)	67.8 cases/ 100,000pop.	329 (+15*)

*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 30/10/2020, 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 **104.9** 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 is currently **67.8** 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, to **397** urban and rural districts. Of these, **166** districts have an incidence of >100 cases/100,000 population and **163** districts have an incidence of >50-100 cases/100,000 population. **18** districts have an incidence of >200 cases/100,000 population.
- **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.**
- The number of COVID-19 patients requiring intensive care has more than doubled in the past 2 weeks from **730** patients on 17/10/2020 to **1,839** patients on 30/10/2020.
- **Analysis of reported deaths in September at the Federal Statistical Office shows an increase of 5% above the expected number based on the mean observed from 2016 to 2019.**

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 **499,694 (+18,681)** 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 (30/10/2020, 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	77,477	2,313	698	11,000	99.1	2,010	18.1
Bavaria	102,074	3,076	778	14,972	114.1	2,797	21.3
Berlin	30,356	1,131	827	5,361	146.1	253	6.9
Brandenburg	7,468	260	296	1,091	43.3	190	7.5
Bremen	5,100	209	749	1,092	160.3	70	10.3
Hamburg	12,947	390	701	1,725	93.4	283	15.3
Hesse	39,093	1,708	622	9,165	145.8	641	10.2
Mecklenburg-Western Pomerania	2,616	132	163	609	37.9	23	1.4
Lower Saxony	34,228	1,248	428	5,150	64.4	743	9.3
North Rhine-Westphalia	127,447	5,396	710	25,119	140.0	2,102	11.7
Rhineland-Palatinate	19,108	688	467	3,520	86.0	281	6.9
Saarland	6,142	336	622	1,150	116.5	186	18.8
Saxony	16,493	1,113	405	3,662	89.9	315	7.7
Saxony-Anhalt	4,804	222	219	1,089	49.6	77	3.5
Schleswig-Holstein	7,716	217	266	1,340	46.1	174	6.0
Thuringia	6,625	242	311	1,170	54.8	204	9.6
Total	499,694	18,681	601	87,215	104.9	10,349	12.4

*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 232,198 cases (47%), thus their date of reporting is provided in Figure 1.

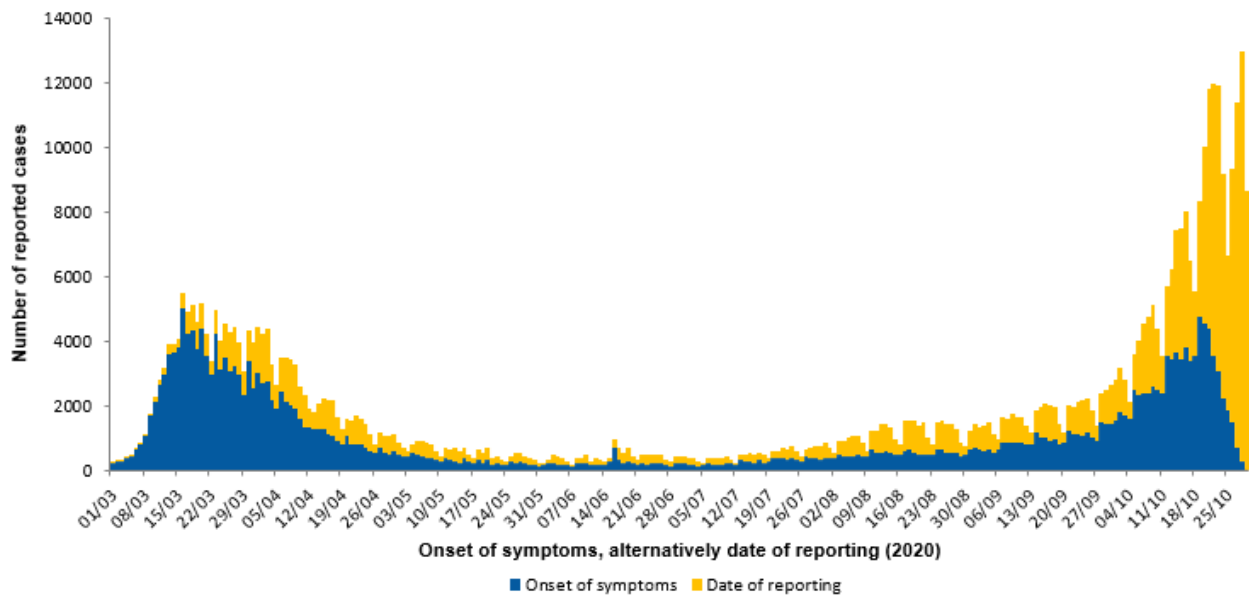


Figure 1: Number of COVID-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or – if unknown – alternatively by date of reporting since 01/03/2020 (30/10/2020, 12:00 AM).

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 44% 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 and among persons employed in medical facilities according to § 23 IfSG (Table 2). The number of deaths was particularly high among persons cared for in these facilities.

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 (496,332* cases, no data available for 218,669 cases; 30/10/2020, 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	5,152	3,379	757	3,900
	Occupation in facility	18,998	759	24	17,600
§ 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*	14,305	191	1	12,100
	Occupation in facility	6,976	243	8	5,900
§ 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	22,976	4,721	3,883	17,400
	Occupation in facility	12,814	516	44	11,900
§ 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	7,636	295	5	7,100
Neither cared for, accommodated in nor working in a facility		188,806	21,638	3,905	163,500

*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 397 districts, including 166 urban and rural districts with an incidence of over 100 cases/100,000 population and 163 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
1.06	1.21
(95%-prediction interval: (0.87 - 1.31))	(95%-prediction interval: 1.09 – 1.35)

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.

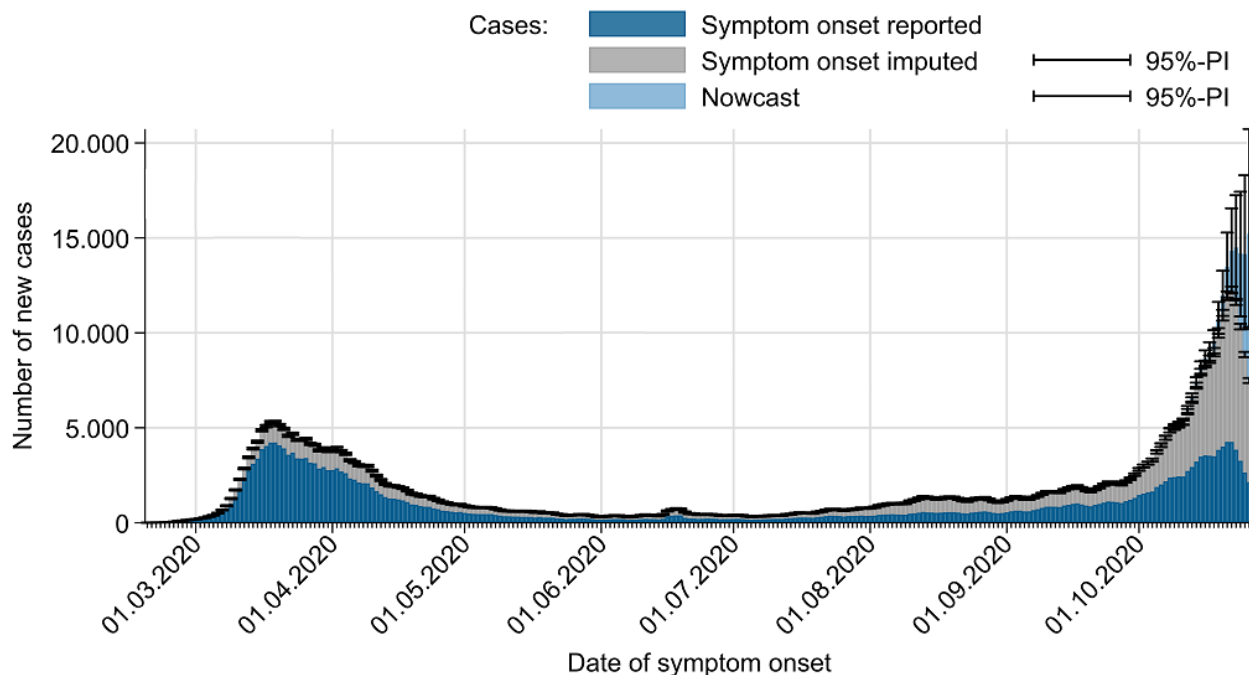


Figure 2: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 30/10/2020, 12 AM, taking into account cases up to 26/10/2020).

Since the start of October, the R-values have been clearly greater than 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>).

Note: The report is a snapshot and is continuously updated.

As of 30/10/2020, a total of **1,283** hospitals or departments reported to the DIVI registry. Overall, **29,221** intensive care beds were registered, of which **21,682** (74%) are occupied, and **7,539** (26%) 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 (30/10/2020, 12:15 PM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	1,839		143
- of these: with invasive mechanical ventilation	919	50%	93
Discharged from ICU	20,746		238
- of these: deaths	4,662	22%	32

*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.

Mortality Monitoring

A total of 24 European countries provide the European EuroMOMO project (European monitoring of excess mortality for public health action) with official mortality statistics on a weekly basis which allows the detection and measuring of excess deaths related to e.g. seasonal influenza and pandemics (<https://www.euromomo.eu/>). In Germany, two regional systems that allow the transmission of data have been established so far (since 2007 in Berlin and Hesse). The establishment of a nationwide monitoring system is planned from 2021 onwards.

An increase in all-cause mortality was observed in conjunction with the COVID-19 pandemic primarily in April 2020. Excess mortality was observed primarily in persons 65 years of age and older, but also among those 15 to 64-years of age. Excess mortality was highest in Belgium, France, Italy, the Netherlands, Spain, Sweden, Switzerland and the UK. After a return to expected levels for most countries in May (with the exception of a heat-related peak in August), total all-cause mortality in the reporting countries has again increased above expected levels since calendar week 38. This is primarily due to increased mortality in Belgium, United Kingdom, Italy, the Netherlands, Portugal and Spain.

Weekly mortality statistics are also recorded on the website of the Federal Statistical Office, albeit with a certain time lag. A special evaluation of excess mortality is normally updated weekly every two weeks. <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Sterbefaelle-Lebenserwartung/Tabellen/sonderauswertung-sterbefaelle.html> (in German).

Looking at the development by months, in March 2020 there was no noticeable increase in the number of deaths compared to March of the previous year. In April, however, all-cause mortality was significantly above the average of previous years; but decreased to expected levels since the beginning of May, with the exception of a heat-related increase in August. In September, however, deaths again increased to 5% above the expected number based on the mean number of deaths observed from 2016 to 2019. In calendar week 40, 2020 (28/09 – 04/10/2020), 17.093 persons died (+9 compared to week 39).

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 (in German):

https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Risikobewertung.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>
- Regulations for persons entering Germany in connection with the novel coronavirus SARS-CoV-2 (15/09/2020) *(in German)*
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-bundeskanzlerin-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.