



Coronavirus Disease 2019 (COVID-19)

Daily Situation Report of the Robert Koch Institute

21/09/2020 - UPDATED STATUS FOR GERMANY

Total (cumulative)		Previous 7 days	
Confirmed cases	Deaths	Confirmed cases	7-day incidence
272,337 (+ 922*)	9,386 (+ 0*)	10,905 (+ 170*)	13.1 cases/ 100.000 population
Proportion of deaths	Recovered	No. of districts reporting cases	No. of districts with 7-day incidence > 50
3.4 %	ca. 242,200** (+ 1,500**)	403/412 (+ 1*)	3 (+ 0*)

**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. **Since 14/09/2020 the RKI situation report will be published in a shortened version. The report will be more focused on the current situation. Demographic and clinical aspects, for which there are only few daily changes, will be presented once a week and in a weekly comparison. Further data is also available in the COVID 19 dashboard: <https://corona.rki.de>**

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

Summary (as of 21/09/2020, 12:00 AM)

- After a temporary stabilisation of case numbers at a higher level, further increase is currently observed in the population of Germany. Therefore, the situation must still be carefully monitored.
- The cumulative nationwide incidence over the past 7 days was **13.1** cases per 100,000 inhabitants. The 7-day incidence exceeded 50 cases/100,000 inhabitants in 3 districts: the city of Würzburg, the district Cloppenburg and the city of Munich. A total of 9 districts transmitted zero cases over the past 7 days.
- In Bavaria and Berlin the 7-day incidence is considerably higher, in Baden-Wuerttemberg, Hamburg and North Rhine-Westphalia noticeably higher than the national mean 7-day incidence.
- In total, **272,337** laboratory-confirmed COVID-19 cases and 9,386 deaths associated with COVID-19 have been electronically reported to the RKI in Germany.
- Further COVID-19-related outbreaks are being reported in various settings, including nursing homes and hospitals, facilities for asylum-seekers and refugees, community facilities, various occupational settings, in the context of religious or family events and especially among travellers.

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, further increase is currently observed in the population of Germany. The proportion of COVID-19 cases in the older age groups is currently slightly increasing, while the proportion of cases among travel returnees is decreasing since calendar week 34. The R-value is currently slightly above 1.

There are outbreaks in various districts throughout Germany, which are associated with different situations, including large celebrations in the family and circle of friends or, especially in cases among younger people, outbreaks originating from travel returnees.

The current development must be further carefully monitored. The number of deaths among reported COVID-19 cases is currently low. This is mainly due to the relatively high proportion of younger people among newly diagnosed cases in the last weeks, of which relatively few fall seriously ill and die. If the trend continues and more elderly and vulnerable people get infected, an increase in hospitalisations and deaths is to be expected.

It is therefore still necessary for the entire population to be committed to infection control, e.g. by consistently observing rules of distance and hygiene - also outdoors -, by ventilating indoor spaces and, where necessary, by wearing a mouth-nose cover correctly. Crowds of people - especially indoors - should be avoided if possible and celebrations should be limited to the closest circle of family and friends.

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 **272,337 (+922)** laboratory-confirmed cases of COVID-19 have been electronically reported to and validated by the RKI (Table 1). A total of **9** districts reported no cases in the past 7 days, while on 16/06/2020 the number of districts reporting zero cases still amounted to 139 districts.

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 (21/09/2020, 12:00 AM). The number of new cases covers positive cases, which have been sent 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	47,107	172	426	1,638	14.8	1,871	16.9
Bavaria	64,919	294	496	2,629	20.1	2,648	20.2
Berlin	13,109	44	350	801	21.4	227	6.1
Brandenburg	4,090	2	163	70	2.8	169	6.7
Bremen	2,219	4	325	82	12.0	59	8.6
Hamburg	7,165	15	389	277	15.0	269	14.6
Hesse	17,637	51	281	730	11.7	544	8.7
Mecklenburg-Western Pomerania*	1,105	0	69	41	2.5	20	1.2
Lower Saxony	18,900	109	237	871	10.9	669	8.4
North Rhine-Westphalia	65,232	154	364	2,708	15.1	1,845	10.3
Rhineland-Palatinate	10,116	31	248	340	8.3	247	6.0
Saarland	3,234	2	326	60	6.1	176	17.8
Saxony	6,692	13	164	254	6.2	226	5.5
Saxony-Anhalt	2,453	10	111	94	4.3	66	3.0
Schleswig-Holstein	4,421	16	153	180	6.2	161	5.6
Thuringia	3,938	5	184	130	6.1	189	8.8
Total	272,337	922	328	10,905	13.1	9,386	11.3

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.

*Yesterday no data was transmitted from Mecklenburg-Western Pomerania.

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 **99,809** cases (37%), thus their date of reporting is provided.

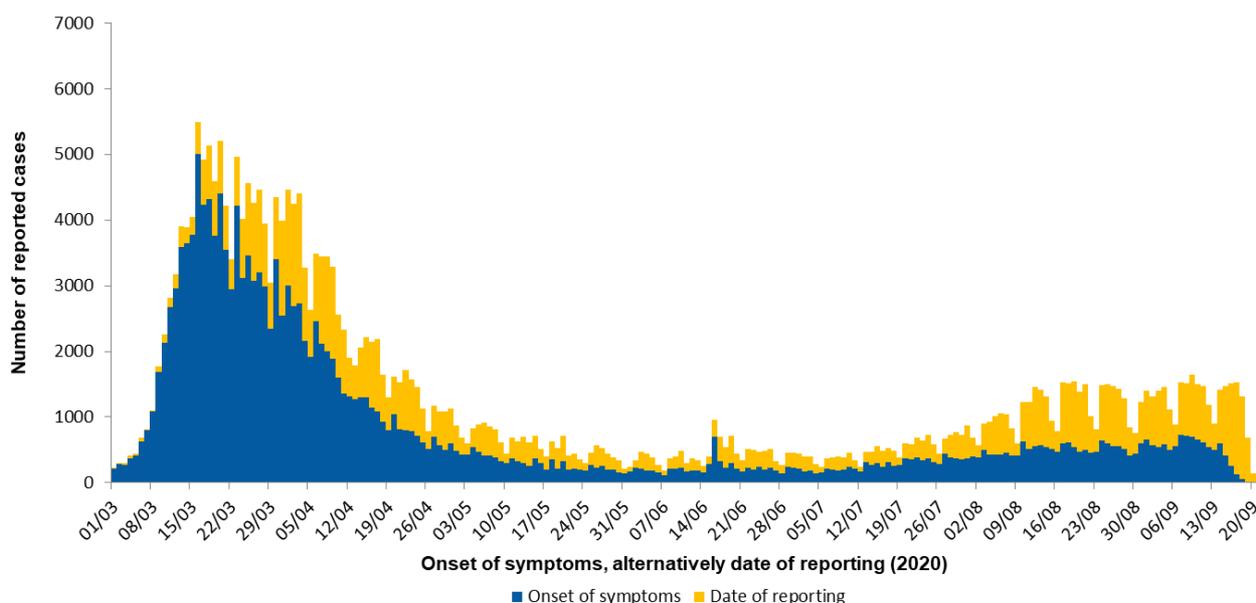


Figure 1: Number of COVID-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or – if unknown – alternatively by date of reporting since 01/03/2020 (21/09/2020, 12:00 AM).

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 26% 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.

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 (270,518* cases, no data available for 69,771 cases; 21/09/2020, 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	4,110	2,883	686	3,300
	Occupation in facility	15,831	692	23	15,400
§ 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*	8,089	131	1	7,200
	Occupation in facility	4,124	183	8	3,700
§ 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	19,774	4,367	3,683	15,700
	Occupation in facility	10,974	471	40	10,700
§ 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	6,017	255	5	5,800
Neither cared for, accommodated in nor working in a facility		131,828	18,460	3,638	120,500

*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.

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

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.

Outbreaks

In **33 districts** an increased incidence of >25 cases in 7 days/100,000 population was reported, including the district Cloppenburg and the cities of Würzburg and Munich where the 7-day incidence is > 50 cases/100,000 population.

The increased incidence in the district of Cloppenburg can be attributed to several COVID-19 clusters after outbreaks in sport clubs, families, nurseries, und religious communities. Responsible authorities implemented extensive regional measures, e.g. (partly) closings of schools and sport clubs, restaurants and event locations. Furthermore, serial testing of affected facilities was performed.

The increased incidence in the city of Würzburg can be attributed to COVID-19 cluster after an outbreak in a shisha bar and further cases in private (bar visit) or work environments. A general ruling was published for the city which provides for restrictions on private events (max. 50 persons indoors, max. 100 persons outdoors) and prohibits the serving of alcohol from 11 p.m. to 6.00 a.m. [Linked to this cluster, the 7-day incidence in the surrounding district of rural Würzburg is also increasing.](#)

[In the city of Munich several outbreaks \(mobile care service, hospital, accommodation for asylum seekers, day care centres, schools, restaurants/bars and returning travellers\) have contributed to the increased 7-day incidence. Current measures comprise a ban on the selling and consuming of alcohol, prolonged obligation to wear a mouth and nose mask in schools, football games without spectators and intensified control measures during public celebrations. Further measures are currently being discussed.](#)

The increased incidence in the affected districts is mainly due to transmission during family and other private events. The proportion of travel returnees among the cases is decreasing.

An increase in COVID-19-related outbreaks is reported in nursing homes; hospitals, facilities for asylum seekers and refugees, community facilities, various occupational settings and in connection with religious events are continuously reported.

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
1.06
(95%-prediction interval: 0.88 - 1.28)

7-day R-value
1.04
(95%-prediction interval: 0.92 – 1.16)

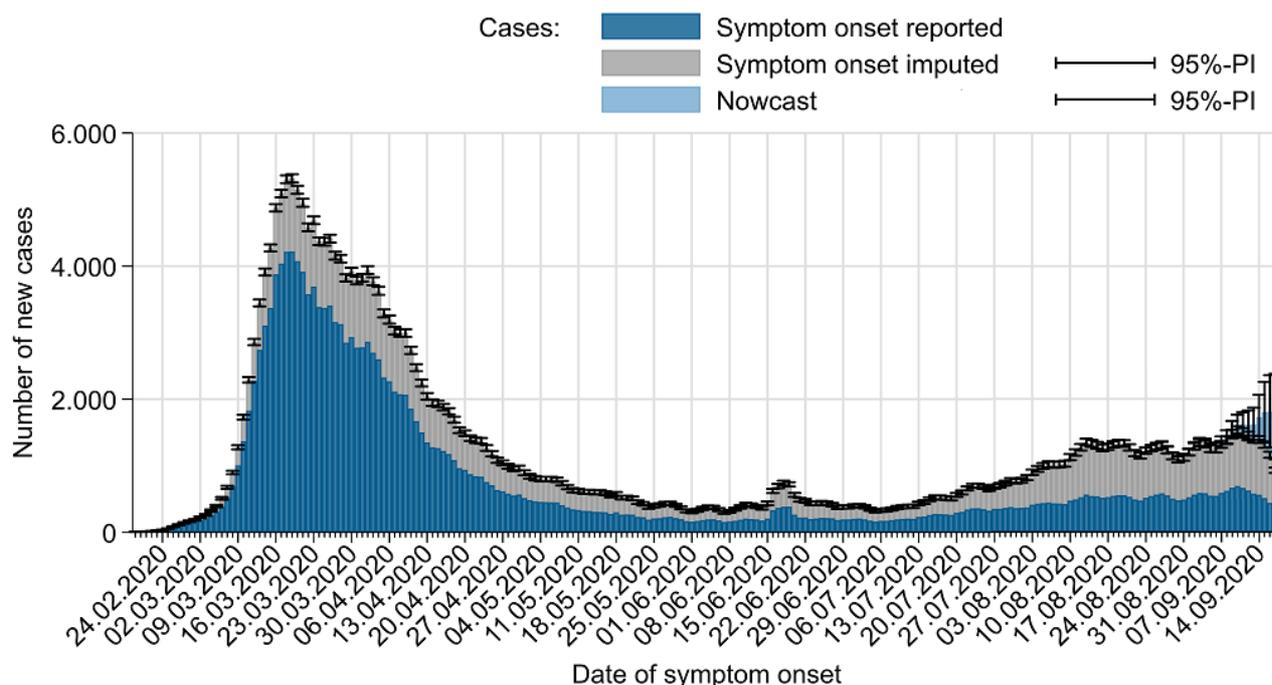


Figure 2: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 21/09/2020, 12 AM, taking into account cases up to 17/09/2020).

The reported R values were below or around 1 since mid-August and are above 1 since the second week of September. The increased R-values can be attributed increasingly to transmissions within Germany.

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 21/09/2020, a total of **1,286** hospitals or departments reported to the DIVI registry. Overall, **30,620** intensive care beds were registered, of which **21,153** (69%) are occupied, and **9,467** (31%) 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 (21/09/2020, 12:15 PM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	267		-1
- of these: mechanically ventilated	145	54%	+1
Discharged from ICU	17,237		+23
- of these: deaths	4,157	24%	+9

*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

General assessment

At the global and the national level, the situation is dynamic and must be taken seriously. This is a dynamic and serious situation worldwide and in Germany. The number of cases continues to increase worldwide. The number of newly reported cases in Germany declined from about mid-March to the beginning of July, since then the number of cases has increased markedly. Many of these cases were associated with travellers. Since calendar week 35 transmissions within Germany can be observed to a larger extent. Large and small outbreaks continue to occur throughout Germany, particularly in connection with celebrations with family and friends and at group events. There are still no approved vaccines and the treatment of severe disease courses is complex and lengthy.

The Robert Koch Institute still estimates the risk to the health of the German population to be high, and very high for risk groups. This assessment may change in the short term due to new findings.

Infection risk

SARS-CoV-2 can be transmitted easily from person to person. The risk of infection depends heavily on the regional spread, living conditions and also on individual behaviour (physical distancing, hygiene measures and community masks). Here, contacts in risk situations (such as long face-to-face contact) play a special role. Aerosol emission increases sharply when speaking loudly, singing or laughing. In indoor rooms, this significantly increases the risk of transmission, even if a distance of more than 1.5 m is maintained. If the minimum distance of 1.5 m without covering the mouth and nose is not maintained, e.g. when groups of people sit at a table or in large gatherings, there is also an increased risk of transmission outdoors.

Disease severity

In most cases, the disease is mild. The probability of progression towards serious disease increases with increasing age and underlying illnesses. Individual long-term consequences cannot be estimated yet. The individual risk cannot be derived from epidemiological/statistical data. Thus, even without known previous illnesses and in young people, the course of the disease can be severe or even life-threatening. Long-term consequences, even after slight progressions, cannot yet be assessed.

Burden on health system

The burden on the health care system depends largely on the geographical distribution of cases, the main population groups affected, the health care capacity and initiation of containment measures (isolation, quarantine, physical distancing etc.). In large parts of Germany it is currently low, but it can rapidly increase locally and affect the public health system in particular as well as medical care facilities.

Measures taken in Germany

- 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 <https://www.bundesgesundheitsministerium.de/coronavirus/chronik-coronavirus.html> (in German)

- Information from the Ministry of Health for travellers entering Germany: Frequently asked questions and answers <https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/faq-tests-einreisende.html> (in German)
- Corona-Warn-App https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/WarnApp/Warn_App.html (in German)
- Regulations for persons entering Germany in connection with the novel coronavirus SARS-CoV-2 (15/09/2020) https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Transport/BMG_Merkblatt_Reisende_Tab.html (in German)
- 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: <https://www.bundesregierung.de/breg-de/themen/coronavirus/corona-bundeslaender-1745198> (in German)
- 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: <https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundestkanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248> (in German)
- (Non-medical) face masks must be worn on public transport and in shops in all federal states.