



Coronavirus Disease 2019 (COVID-19)

Daily Situation Report of the Robert Koch Institute

27/09/2020 - UPDATED STATUS FOR GERMANY

ABRIDGED WEEKEND EDITION

Total (cumulative)		Previous 7 days	
Confirmed cases	Deaths	Confirmed cases	7-day incidence
284,140 (+ 1,410*)	9,457 (+ 5*)	11,150 (+ 20*)	13.4 cases/ 100,000 population
Proportion of deaths	Recovered	No. of districts reporting cases	No. of districts with 7- day incidence > 50
3.3 %	ca. 250,500** (+ 1,100**)	400/412 (-1*)	4 (+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.

Further data is available in the COVID 19 dashboard: <https://corona.rki.de>

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

Summary (as of 27/09/2020, 12:00 AM)

- After a temporary stabilisation of case numbers at a higher level, a further increase in reported COVID-19 cases is currently evident in the population of Germany. Therefore, the situation must still be carefully monitored.
- The cumulative nationwide incidence over the past 7 days was **13.4** cases per 100,000 inhabitants. The 7-day incidence exceeded 50 cases/100,000 inhabitants in **4** districts: the cities of Hamm and Remscheid and the district of Dingolfing-Landau and **the district of Berlin-Mitte**. A total of **12** districts transmitted zero cases over the past 7 days.
- The 7-day incidence in Berlin, Bremen and Hamburg is considerably higher, and in **Bavaria**, Hesse and North Rhine-Westphalia noticeably higher than the national mean 7-day incidence.
- In total, **284,140** laboratory-confirmed COVID-19 cases and **9,457** deaths associated with COVID-19 have been electronically reported to the RKI in Germany.
- A large number of COVID-19-related outbreaks continue to be reported in various settings. Case clusters are being reported particularly in the context of religious or family events, in nursing homes and hospitals, facilities for asylum-seekers and refugees, community facilities, various occupational settings, and 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 in late August and early September, further increase is currently observed in the population in some federal states. 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, in occupational and religious settings, or, especially in cases among younger people, outbreaks originating from travel returnees.

The current development must be further carefully monitored.

Since calendar week 30, the proportion of deaths among COVID-19 cases has been consistently below 1% and is thus markedly lower than among cases in the spring, particularly in April (see Situation Report from 22/09/2020). It is unlikely that the virus has changed to become less pathogenic. Rather, the low proportion of deaths can be explained as follows: On the one hand, recent infections have occurred mainly among young people, who rarely experience a severe course of disease. On the other hand there is also broader testing, which means more milder cases are identified. Additionally, as the number of cases increases, the true proportion of severe courses of disease and deaths only becomes apparent some time after diagnosis. If the trend continues and elderly and vulnerable people are increasingly infected with SARS-CoV-2, an increase in hospitalisations and deaths is to be expected. Severe cases and deaths can only be prevented through decreased transmission of SARS-CoV-2.

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 indicated, by wearing a community mask 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 **284,140 (+1,411)** laboratory-confirmed cases of COVID-19 have been electronically reported to and validated by the RKI (Table 1). A total of **12** districts reported no cases in the past 7 days; however on 16/06/2020 a total of 139 districts reported zero cases.

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 (27/09/2020, 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*	48,467	0	438	1,205	10.9	1,877	17.0
Bavaria	67,255	250	514	2,194	16.8	2,659	20.3
Berlin	14,113	143	377	999	26.7	228	6.1
Brandenburg	4,214	11	168	108	4.3	169	6.7
Bremen	2,366	46	346	153	22.4	59	8.6
Hamburg	7,638	88	415	384	20.9	269	14.6
Hesse	18,607	211	297	984	15.7	550	8.8
Mecklenburg-Western Pomerania*	1,151	0	72	38	2.4	20	1.2
Lower Saxony	19,772	24	248	788	9.9	683	8.6
North Rhine-Westphalia	68,395	492	381	3,086	17.2	1,864	10.4
Rhineland-Palatinate	10,483	44	257	348	8.5	252	6.2
Saarland*	3,295	7	333	60	6.1	176	17.8
Saxony	7,095	43	174	336	8.2	233	5.7
Saxony-Anhalt	2,569	33	116	115	5.2	67	3.0
Schleswig-Holstein	4,671	15	161	243	8.4	161	5.6
Thuringia	4,049	3	189	109	5.1	190	8.9
Total	284,140	1,411	342	11,150	13.4	9,457	11.4

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.

*No cases were transmitted from Baden-Wuerttemberg and Mecklenburg Western-Pomerania yesterday.

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 105,351 cases (37%), thus their date of reporting is provided.

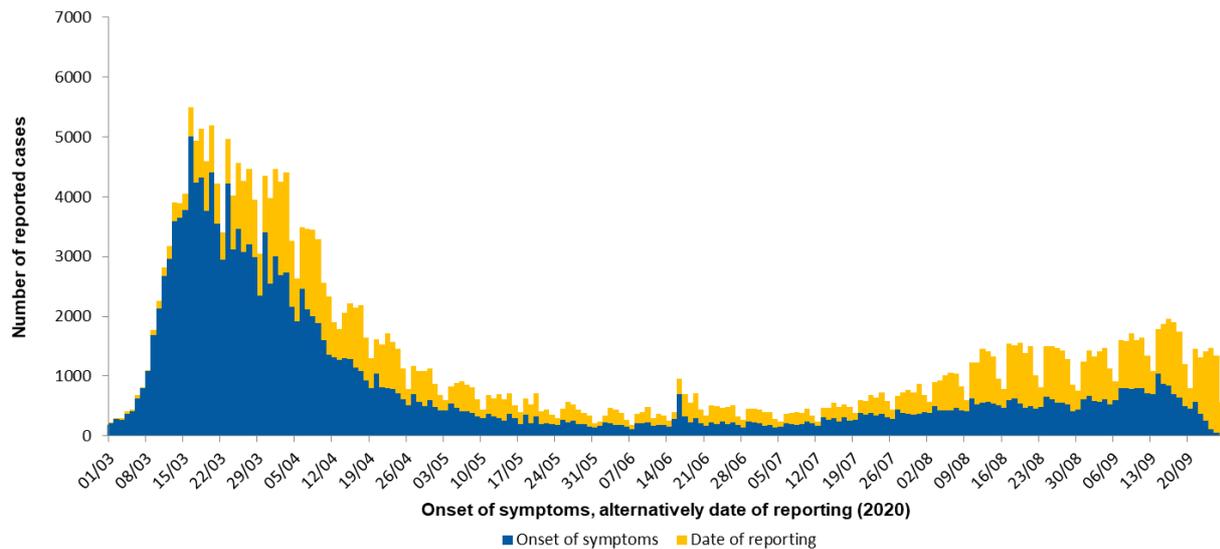


Figure 1: Number of COVID-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or – if unknown – alternatively by date of reporting since 01/03/2020 (27/09/2020, 12:00 AM).

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.

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 (Tabelle 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 (282,128* cases, no data available for 73,424 cases; 27/09/2020, 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	4,216	2,932	696	3,300
	Occupation in facility	16,101	702	23	15,700
§ 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*	8,881	135	1	7,700
	Occupation in facility	4,397	193	8	4,000
§ 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	20,054	4,404	3,701	15,900
	Occupation in facility	11,111	476	40	10,800
§ 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	6,194	259	5	5,900
Neither cared for, accommodated in nor working in a facility		137,750	18,834	3,670	125,200

*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.

Outbreaks

An increased incidence of >25 cases in 7 days/100,000 population was reported from 28 districts, including the cities of Hamm and Remscheid and the districts of Dingolfing-Landau and Berlin-Mitte with 7-day incidences of > 50 cases/100,000 population.

The increased incidence in the city of Hamm is largely due to 150 cases in connection with a wedding (<https://www.hamm.de/corona>). More than 300 identified guests were tested and are under quarantine. Stricter distancing measures have been implemented in Hamm (<https://www.hamm.de/aktuelles/weitere-corona-massnahmen-beschlossen>).

The increased incidence in Dingolfing-Landau is mainly explained by a COVID-19 outbreak at an industrial company and associated logistic partners. Mass testing was implemented; >30 cases have been diagnosed thus far. [The district administration has decreed the implementation stricter control measures \(https://www.landkreis-dingolfing-landau.de/media/3063/allgemeinverfuegung-ldl-20200925.pdf\)](https://www.landkreis-dingolfing-landau.de/media/3063/allgemeinverfuegung-ldl-20200925.pdf).

The 7-day incidence in the city of Remscheid again increased to over 50 cases/100,000 inhabitants on 25/09/2020, after a brief decrease on 24/09/2020. Here, cases were mainly found among contact persons of confirmed cases and can be attributed mostly to families upon return from holidays. Several schools and nurseries are affected. Stricter control measures have been implemented (https://remscheid.de/corona#chapter146380100000143530-1015_sp_main_iterate_1_0).

The 7-day incidence in the district of Rhön-Grabfeld increased to over 50 cases/100,000 inhabitants yesterday; today the incidence has fallen below this threshold. A high proportion of the cases can be traced back to a wedding ceremony.

In the district of Berlin-Mitte the increased incidence is due to more diffuse transmission. Young adults have been frequently affected following international travel or attendance of parties with subsequent transmission in their households and families. The situation is similar in several other Berlin districts, with a 7-day incidence >25 cases/100,000 inhabitants reported from 4 other districts as well.

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

Currently, COVID-19 cases are predominantly due to transmission at family and other private events. The proportion of travel returnees among the cases is decreasing. The number of COVID-19-related outbreaks reported in nursing homes, hospitals, facilities for asylum seekers and refugees, community facilities, various occupational settings and in connection with religious events has increased.

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
1.17	1.02
(95%-prediction interval: 0.95 – 1.40)	(95%-prediction interval: 0.91 – 1.13)

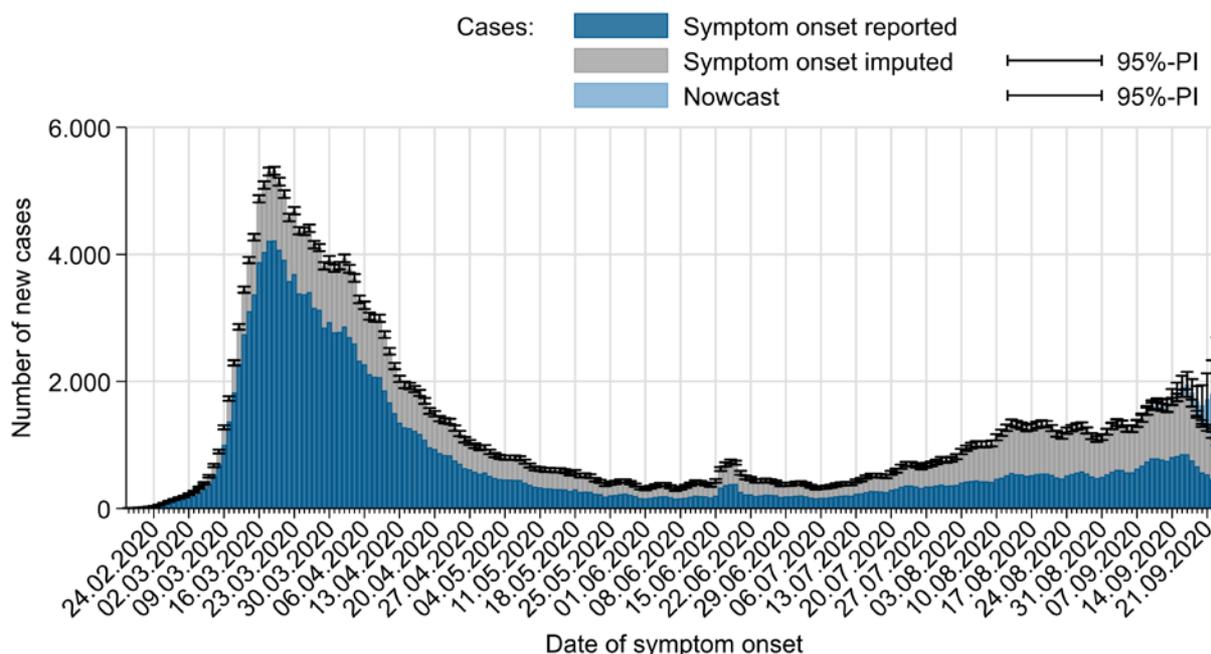


Figure 2: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 27/09/2020, 12 AM, taking into account cases up to 23/09/2020).

The reported R values have been predominantly greater than 1 since the second week in September.

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 27/09/2020, a total of **1,286** hospitals or departments reported to the DIVI registry. Overall, **30,458** intensive care beds were registered, of which **21,113** (69%) are occupied, and **9,345** (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 (27/09/2020, 12:15 PM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	325		13
- of these: mechanically ventilated	179	55%	7
Discharged from ICU	17.415		38
- of these: deaths	4.165	24%	16

*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

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

(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.