



Coronavirus Disease 2019 (COVID-19) Daily Situation Report of the Robert Koch Institute

01/07/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered
194,725 (+ 466*)	8,985 (+ 12*)	4.6%	ca. 179,800**

*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 01/07/2020 12:00 AM)

- The cumulative nationwide incidence over the past 7 days was **3.3** cases per 100,000 inhabitants. A total of **139** districts transmitted zero cases.
- In total, **194,725** laboratory-confirmed COVID-19 cases and **8,985** deaths due to COVID-19 have been electronically reported to the RKI in Germany.
- COVID-19 outbreaks continue to be reported sporadically in nursing homes and hospitals as well as refugee facilities.
- Outbreaks of COVID-19 in meat processing plants have been reported in several federal states. In the district of Guetersloh in North Rhine-Westphalia, such an outbreak led to a high 7-day incidence of over 50 cases per 100,000 inhabitants.

Epidemiological Situation in Germany

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 **194,725 (+466)** laboratory-confirmed cases of coronavirus disease 2019 (COVID-19) have been electronically reported to and validated by the RKI (see Table 1). A total of **132** districts reported no cases in the past 7 days. Information on laboratory-confirmed cases is also available on the RKI website

at https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Fallzahlen.html and <https://corona.rki.de>.

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 (01/07/2020, 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	35,694	74	322	231	2.1	1,838	16.6
Bavaria	48,480	80	371	373	2.9	2,594	19.8
Berlin	8,243	23	220	240	6.4	214	5.7
Brandenburg	3,440	11	137	32	1.3	165	6.6
Bremen	1,667	5	244	14	2.0	53	7.8
Hamburg	5,204	3	283	34	1.8	259	14.1
Hesse	10,811	16	173	153	2.4	507	8.1
Mecklenburg-Western Pomerania	803	1	50	9	0.6	20	1.2
Lower Saxony	13,577	42	170	194	2.4	629	7.9
North Rhine-Westphalia	43,242	176	241	1,343	7.5	1,683	9.4
Rhineland-Palatinate	7,022	26	172	81	2.0	235	5.8
Saarland	2,806	0	283	6	0.6	173	17.5
Saxony	5,451	3	134	13	0.3	223	5.5
Saxony-Anhalt	1,873	2	85	15	0.7	59	2.7
Schleswig-Holstein	3,159	5	109	21	0.7	152	5.2
Thuringia	3,253	-1	152	16	0.7	181	8.4
Total	194,725	466	234	2,775	3.3	8,985	10.8

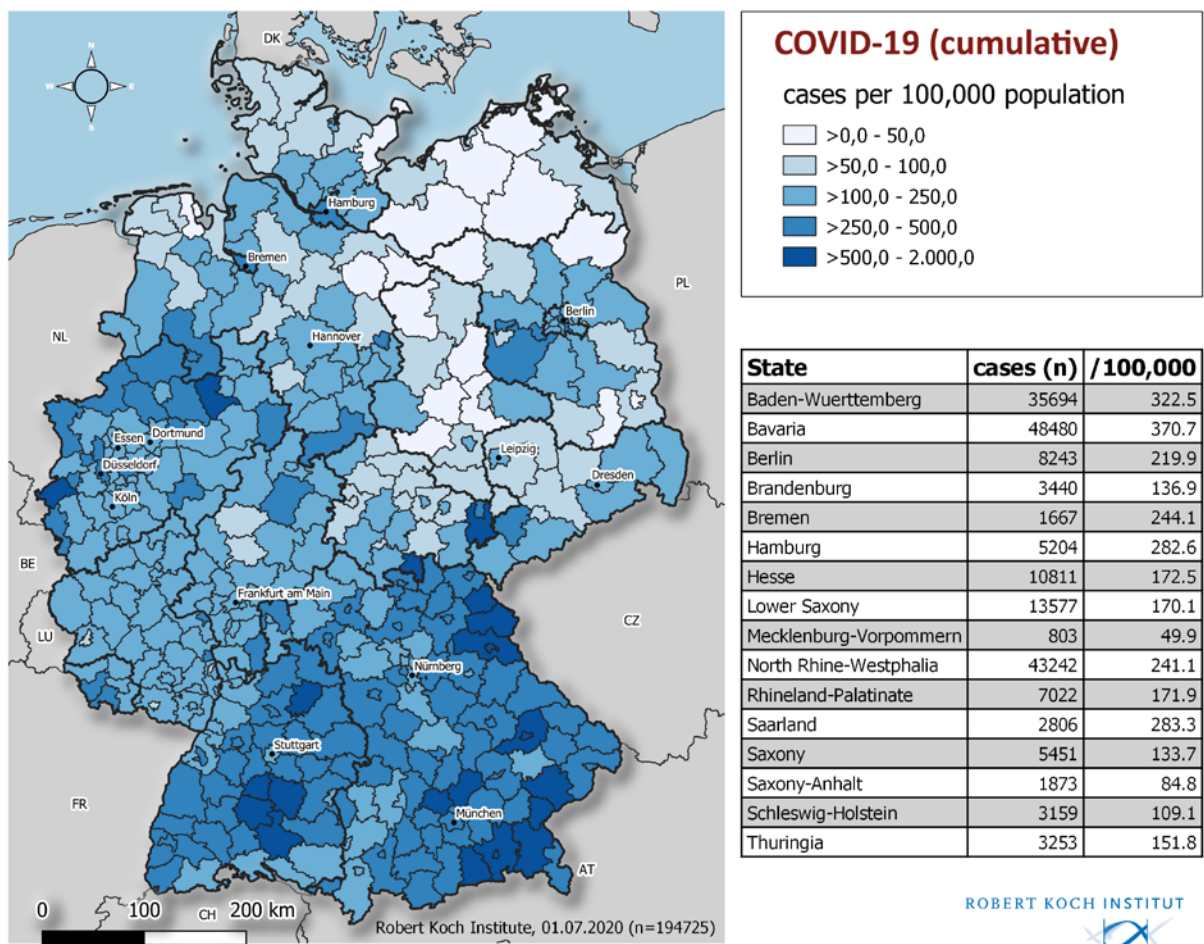


Figure 1: Number and cumulative incidence (per 100,000 population) of the 194,725 electronically reported COVID-19 cases in Germany by county and federal state (01/07/2020, 12:00 AM). Please see the COVID-19 dashboard (<https://corona.rki.de/>) for information on number of COVID-19 cases by county (local health authority).

Distribution of cases over time

The first COVID-19 cases in Germany were notified in January 2020. Figure 2 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 in 58,058 cases (30%), thus their date of reporting is provided in Figure 2.

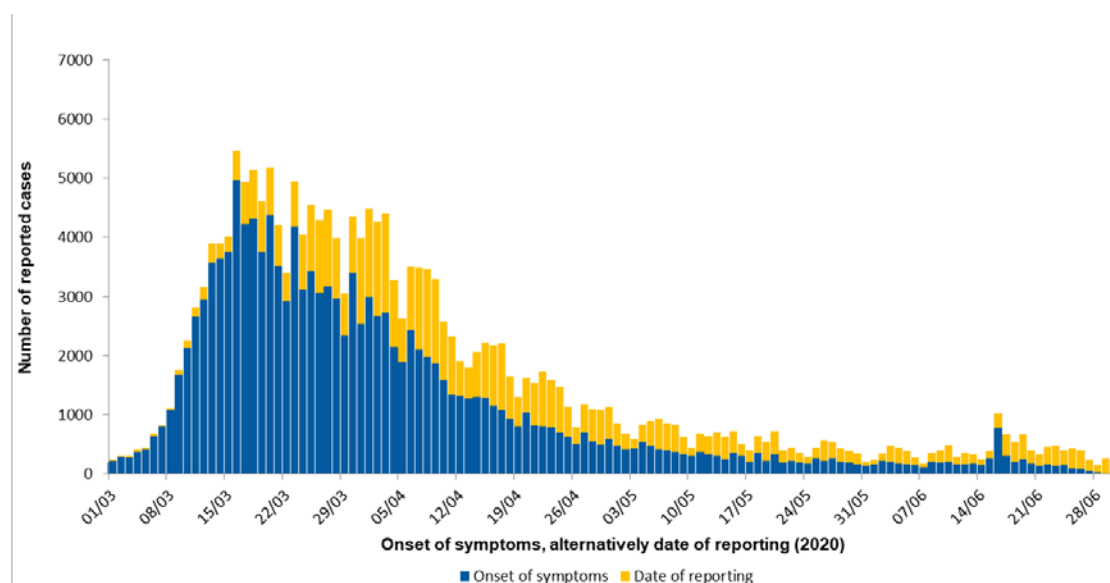


Figure 2: Number of COVID-19 cases in Germany electronically reported to the RKI by date of symptom onset or –if unknown– alternatively by date of reporting from 01/03/2020 (01/07/2020, 12:00 AM).

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

Demographic distribution of cases

Of all reported cases, 52% are female and 48% are male. Among all those notified cases, for which data on gender was reported, 4,839 were children under 10 years of age (2.5%), 9,393 children and teenagers aged 10 to 19 years (4.8%), 85,386 persons aged 20 to 49 years (44%), 59,162 persons aged 50 to 69 years (30%), 30,186 persons aged 70 to 89 years (16%) and 5,351 persons aged 90 years and older (2.8%). The age and/or gender is unknown in 408 notified cases. The mean age of cases is 48 years (median age 49 years). The highest incidences are seen in persons aged 90 years and older (Figure 3).

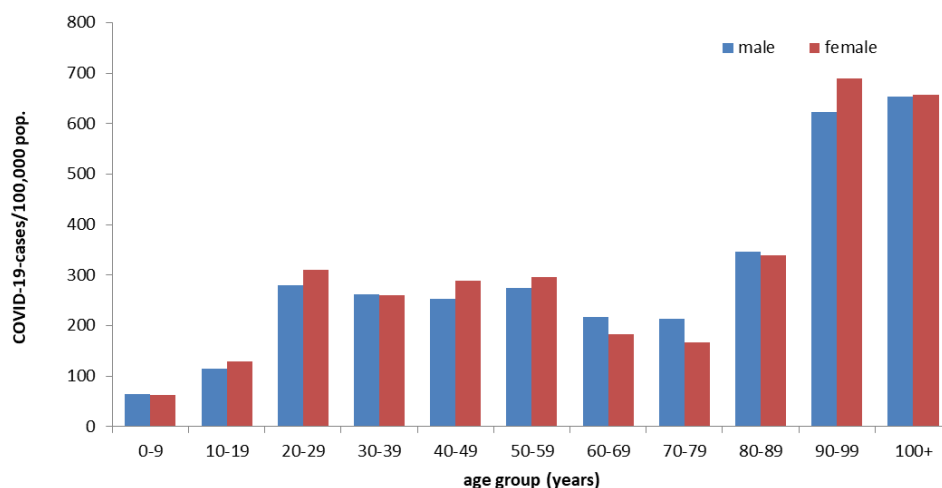


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and gender (n=194,311) for cases with information available (01/07/2020, 12:00 AM).

Clinical aspects

Information on symptoms is available for 166,453 (86%) of the notified cases. Common symptoms are cough (48%), fever (41%) and rhinorrhoea (21%). Pneumonia was reported in 5,042 cases (3.0%). Since calendar week 17, cases are reported to the RKI as a distinct COVID-19 surveillance category. Since then, ageusia and anosmia can also be entered as symptoms. At least one of these two symptoms was reported in 3,388 of 23,189 cases (15%).

Hospitalisation was reported for 29,288 (17%) of 169,476 COVID-19 cases with information on hospitalisation status.

Approximately 179,800 people have recovered from their COVID-19 infection. Since the exact date of recovery is unknown in most cases, an algorithm was developed to estimate this number.

Table 2: Number of notified COVID-19 deaths by age group and gender electronically reported to RKI (Data available for 8,980 of notified deaths; 01/07/2020, 12:00 AM)

Gender	Age group (in years)										
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Male		2	7	17	51	233	632	1,362	2,097	562	6
Female	1		3	6	21	84	226	662	1,890	1,074	44
Total	1	2	10	23	72	317	858	2,024	3,987	1,636	50

In total, 8,985 COVID-19-related deaths have been reported in Germany (4.6% of all confirmed cases). Of these, 4,969 (55%) are men and 4,011 (45%) are women (see Table 2), the gender was unknown in five cases). The median age was 82 years. Of all deaths, 7,700 (86%) were in people aged 70 years or older, but only 18% of all cases were in this age group. So far, three deaths among COVID-19 cases under 20 years of age have been reported to the RKI. Pre-existing medical conditions were reported for all three.

Occupation, accommodation or care in facilities

In accordance with the Protection Against Infection Act, 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 25% of cases, the proportion 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 3: Notified COVID-19-cases according to possible occupation, accommodation or care in facilities relevant for transmission of infectious diseases electronically reported to RKI (193,612* cases, no data available for 48,766 cases; 01/07/2020, 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	3.375	2.414	624	2.600
	Occupation in facility	13.853	635	20	13.700
§ 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*	3.229	70	1	2.800
	Occupation in facility	2.730	140	7	2.700
§ 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	17.929	4.069	3.547	14.000
	Occupation in facility	9.913	422	44	9.800
§ 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	4.404	193	6	3.600
Neither cared for, accommodated in nor working in a facility		89.413	15.841	3.422	83.900

*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.
IfSG: Protection Against Infection Law

So far, **13,853** cases with a SARS-CoV-2 infection have been notified among staff working in medical facilities as defined by Section 23 IfSG. Among the cases reported as working in medical facilities, 73% were female and 27% male. The median age was 41 years, 20 persons died.

The low number of cases among persons who attend or work in facilities providing child care or education (Section 33 IfSG) reflects the low incidence in children observed thus far. The high number of cases among people cared for or working in various care facilities (Section 36 IfSG) is consistent with numerous reported outbreaks, especially in nursing homes. The increase in the number of cases among persons working in the food sector (Section 42 IfSG) is largely due to outbreaks in meat processing plants.

Outbreaks

A high 7-day incidence with more than 25 cases per 100,000 inhabitants was observed in **two** districts, the district of Guetersloh (North Rhine-Westphalia) and the district of Oldenburg (Lower Saxony).

The high 7-day incidence in the district Guetersloh is due to an outbreak in a meat processing plant. Increased case numbers in neighboring districts are linked to this outbreak, as employees of the meat processing company are residents of these districts. More than 1,500 employees were tested positive for SARS-CoV-2. The affected plant was temporarily closed at short notice and all employees are in quarantine together with their household members. In addition, all schools and day-care centres in the district of Guetersloh were closed on 18/06/2020 until the end of the summer holidays (11/08/2020), in the neighboring district of Warendorf since 25/06/2020. On 23/06/2020, the state of North Rhine-Westphalia officially implemented the second stage of a lockdown for the districts of Guetersloh and Warendorf until 30/06/2020. Widespread testing for SARS-CoV-2 has been implemented in the affected region. Nursing facilities, hospitals, employees in the food retail sector, kiosk staff and residents of central shared accommodations are being tested in Gütersloh and Warendorf. Any resident can have a test performed free of charge.

Currently, two further outbreaks in other meat processing plants are ongoing in the district of Wesel in North Rhine-Westphalia and the district of Oldenburg in Lower Saxony. Both plants were temporarily closed.

A few COVID-19 outbreaks continue to be reported in nursing homes and hospitals as well as refugee facilities.

Estimation of the reproduction number (R)

The presented case numbers do not fully reflect the temporal progression of incident COVID-19-cases, since the time intervals between actual onset of illness and diagnosis, reporting, as well as data transmission to the RKI vary greatly. Therefore, a nowcasting approach is applied to model the true temporal progression of COVID-19 cases according to illness onset. Figure 5 shows the result of this analysis.

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 and not directly extracted from the notification system.

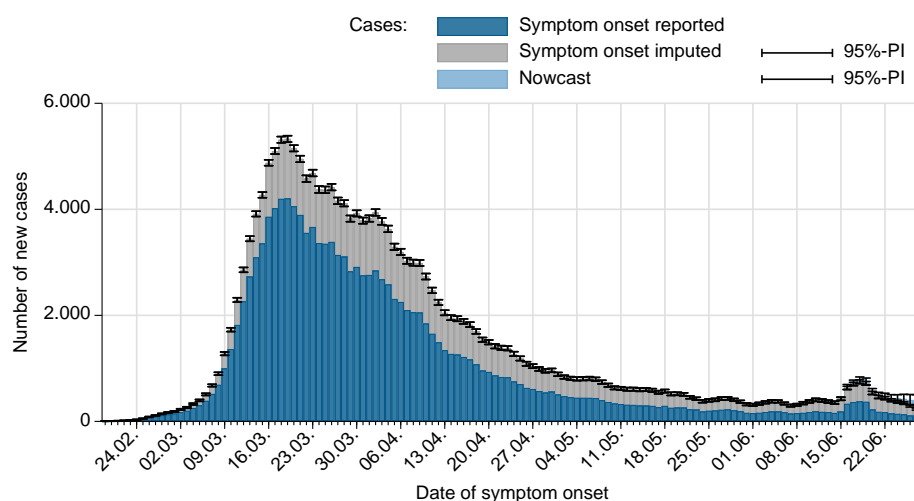


Figure 4: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 01/07/2020, 12 AM, taking into account cases up to 27/06/2020).

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

The sensitive R-value reported can be estimated by using a 4-day moving average of the number of new cases estimated by nowcasting. This 4-day value reflects the infection situation about one to two weeks ago. This value reacts sensitively to short-term changes in case numbers, such as those caused by individual outbreaks. This can lead to relatively large fluctuations, especially if the total number of new cases is small. The current estimate of the 4-day R-value is **0.86** (95%-prediction interval: **0.70 – 1.03**) and is based on electronically notified cases as of 01/07/2020, 12:00 AM.

Similarly, the 7-day R-value is estimated by using a moving 7-day average of the nowcasting curve. This compensates for fluctuations more effectively, as this value represents a slightly later course of infection of about one to a little over two weeks ago. The 7-day R-value is estimated at **0.79** (95% prediction interval: **0.71 – 0.87**) and is based on electronically notified cases as of 01/07/2020, 12:00 AM.

After a temporary marked increase in the estimated reproduction numbers (R-value and 7-day R-value), they have again decreased to a value of 1 or below over the past few days. The marked increase over the preceding days was related to increased case numbers mainly due to local, outbreak-related COVID-19 transmission with the outbreak in North Rhine-Westphalia playing a particularly important role (see section “Outbreaks”, above). The outbreak dynamics are also influenced in part by serial tests performed among possibly exposed persons, which led to the rapid detection of large numbers of additional COVID-19 cases in some of the outbreak settings. Since the case numbers in Germany are at a low level overall, local outbreaks have a relatively strong influence on the value of the reproduction number. For this reason, the reproduction numbers may continue to fluctuate markedly.

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 methodological explanation of the more stable 7day R-value is also available there. More general information and sample calculations for both R-values can also be found in our FAQs (<http://www.rki.de/covid-19-faq>).

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

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

As of 01/07/2020, a total of **1,275** hospitals or departments reported to the DIVI registry. Overall, **32,614** intensive care beds were registered, of which **21,406** (66%) are occupied, and **11,208** beds (36%) are currently available. The number of COVID-19 cases treated in participating hospitals is shown in Table 4.

Table 4: COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (01/07/2020 01/07/2020, 12:15 AM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	329		-8
- of these: mechanically ventilated	170	52%	-4
Discharged from ICU	14,787		+6
- of these: deaths	3,740	25%	-4

*The interpretation of these numbers must take into account the slightly changing number of reporting hospitals (with large differences in their number of beds) from day to day. This can explain the observed decrease in the cumulative number of discharged patients and deaths on some days compared to the previous day.

Surveys on SARS-CoV-2 laboratory tests in Germany

In order to assess the SARS-CoV-2 test numbers, data from university hospitals, research institutions as well as clinical and outpatient laboratories throughout Germany are merged weekly at the RKI. These are transmitted via an internet-based RKI test laboratory survey, via the network for respiratory viruses (RespVir), via the laboratory-based SARS-CoV-2 Surveillance established at the RKI (an extension of the Antibiotic Resistance Surveillance (ARS)) and via the enquiry of a professional association of laboratory medicine.

Table 5: Number of SARS-CoV-2-laboratory tests in Germany (as of 30/06/2020)

Weeks 2020	Number tests	Tested positiv	Proportion positive (%)	Number of reporting laboratories
Up until week 11	124,716	3,892	3.1	90
week 11	127,457	7,582	5.9	114
week 12	348,619	23,820	6.8	152
week 13	361,515	31,414	8.7	151
week 14	408,348	36,885	9.0	154
week 15	380,197	30,791	8.1	164
week 16	331,902	22,082	6.7	168
week 17	363,890	18,083	5.0	178
week 18	326,788	12,608	3.9	175
week 19	403,875	10,755	2.7	182
week 20	432,666	7,233	1.7	183
Week 21	353,467	5,218	1.5	179
Week 22	405,269	4,310	1.1	178
Week 23	340,986	3,208	0.9	176
Week 24	325,430	2,713	0.8	170
Week 25	382,397	5,072	1.3	171
Week 26	456,041	3,574	0.8	169
total	5,873,563	229,240		

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

Since the beginning of testing in Germany up to and including week 26/2020, 5,873,563 laboratory tests have been recorded to date, 229,240 of which have tested positive for SARS-CoV-2 (see Table 5).

Up to and including week 26, 227 laboratories have registered for the RKI test laboratory survey or in one of the other transmitting networks and communicate mainly on a weekly basis.

Since laboratories can register the tests of the previous calendar weeks at a later date, it is possible that the numbers determined will increase subsequently. It should be noted that the number of tests is not the same as the number of persons tested, as the data may include multiple tests of patients.

Risk Assessment by the RKI

General assessment

At the global and the national level, the situation is very dynamic and must be taken seriously. The number of newly reported cases is currently decreasing. The RKI currently assesses the risk to the health of the German population overall as **high** and as **very high** for risk groups. This assessment may change at short notice based on new insights.

Infection risk

The risk of infection depends heavily on the regional spread, living conditions and also on individual behaviour.

Disease severity

In most cases, the disease is mild. The probability of progression towards serious disease increases with increasing age and underlying illnesses.

Burden on health system

The burden on the health care system depends on the geographical distribution of cases, health care capacity and initiation of containment measures (isolation, quarantine, physical distancing etc.). The burden is currently low in many regions, but may be high in some locations.

Measures taken by Germany

- [Information on the designation of international risk areas](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Risikogebiete_neu.html)
(01.07.2020) https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Risikogebiete_neu.html
- Guidance for the public „Do I have it and what should I do?“ in three languages
(26.06.2020) https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Orientierungshilfe_Buerger.html
(in English, French and German)
- Corona-Warn-App https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/WarnApp/Warn_App.html
- Regulations for persons entering Germany in connection with the novel coronavirus SARS-CoV-2
(15.06.2020) 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: <https://www.bundesregierung.de/breg-de/themen/coronavirus/corona-bundeslaender-1745198>
(in German)

- (Non-medical) face masks must be worn on public transport and in shops in all federal states.
- Data on current disease activity can be found in the daily situation reports and 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)