



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

03/07/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered
195,674 (+ 446*)	9,003 (+ 9*)	4.6%	ca. 181,00**

*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 03/07/2020 12:00 AM)

- The cumulative nationwide incidence over the past 7 days was **3.2** cases per 100,000 inhabitants. A total of **126** districts transmitted zero cases.
- In total, **195,674** laboratory-confirmed COVID-19 cases and **9,003** 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 refugee facilities and religious communities.
- 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 has 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 **195,674 (+446)** 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 **126** 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 (03/07/2020, 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	35,771	27	323	222	2.0	1,839	16.6
Bavaria	48,587	40	372	390	3.0	2,598	19.9
Berlin	8,345	43	223	219	5.8	214	5.7
Brandenburg	3,450	7	137	27	1.1	166	6.6
Bremen	1,675	5	245	17	2.5	53	7.8
Hamburg	5,212	1	283	27	1.5	260	14.1
Hesse	10,894	25	174	170	2.7	509	8.1
Mecklenburg-Western Pomerania	803	0	50	6	0.4	20	1.2
Lower Saxony	13,632	27	171	167	2.1	633	7.9
North Rhine-Westphalia	43,660	224	243	1,209	6.7	1,686	9.4
Rhineland-Palatinate	7,068	32	173	107	2.6	235	5.8
Saarland	2,805	-2	283	6	0.6	174	17.6
Saxony	5,453	-4	134	11	0.3	224	5.5
Saxony-Anhalt	1,878	2	85	14	0.6	59	2.7
Schleswig-Holstein	3,176	13	110	29	1.0	152	5.2
Thuringia	3,265	6	152	21	1.0	181	8.4
Total	195,674	446	235	2,642	3.2	9,003	10.8

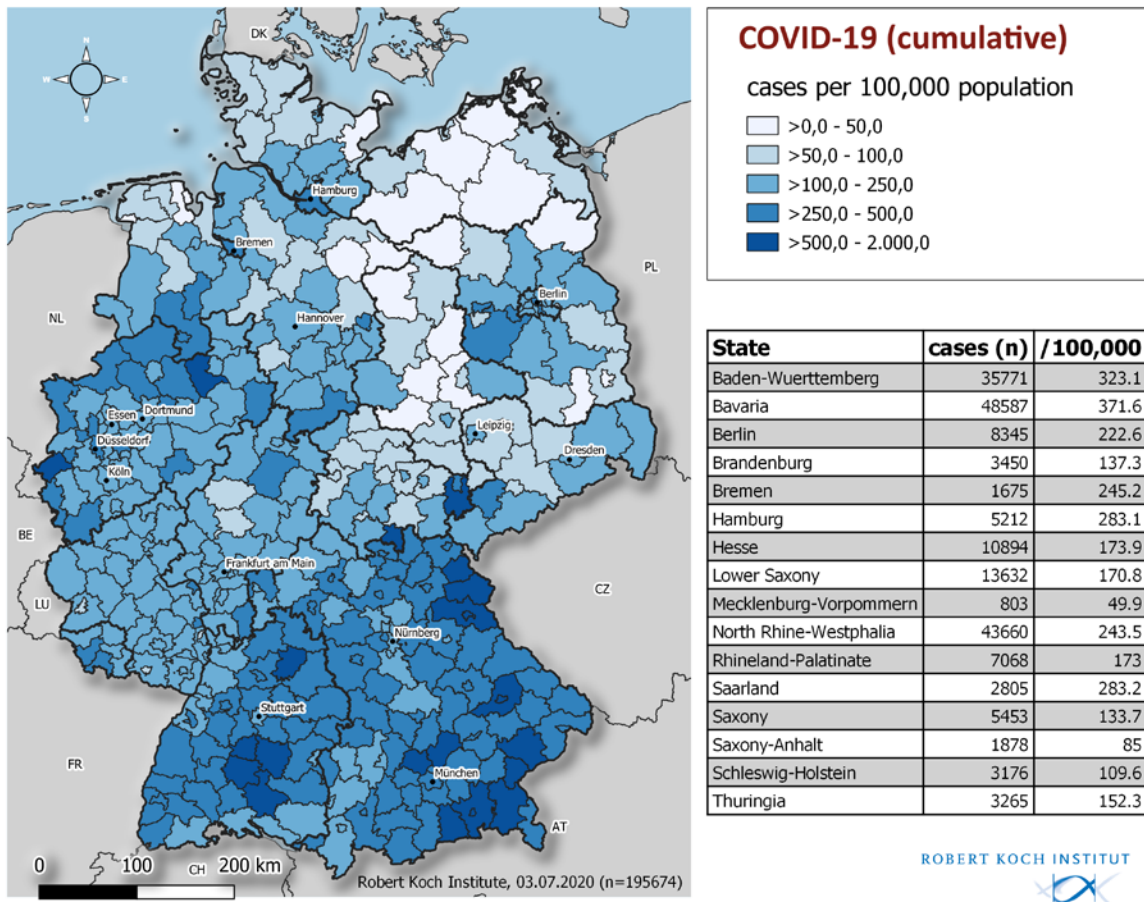


Figure 1: Number and cumulative incidence (per 100,000 population) of the 195,674 electronically reported COVID-19 cases in Germany by county and federal state (03/07/2020, 12:00 AM). Please see the COVID-19 dashboard (<https://corona.rki.de/>) for information on number of COVID-19 cases by county (local 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 58,409 cases (30%), thus their date of reporting is provided in Figure 2.

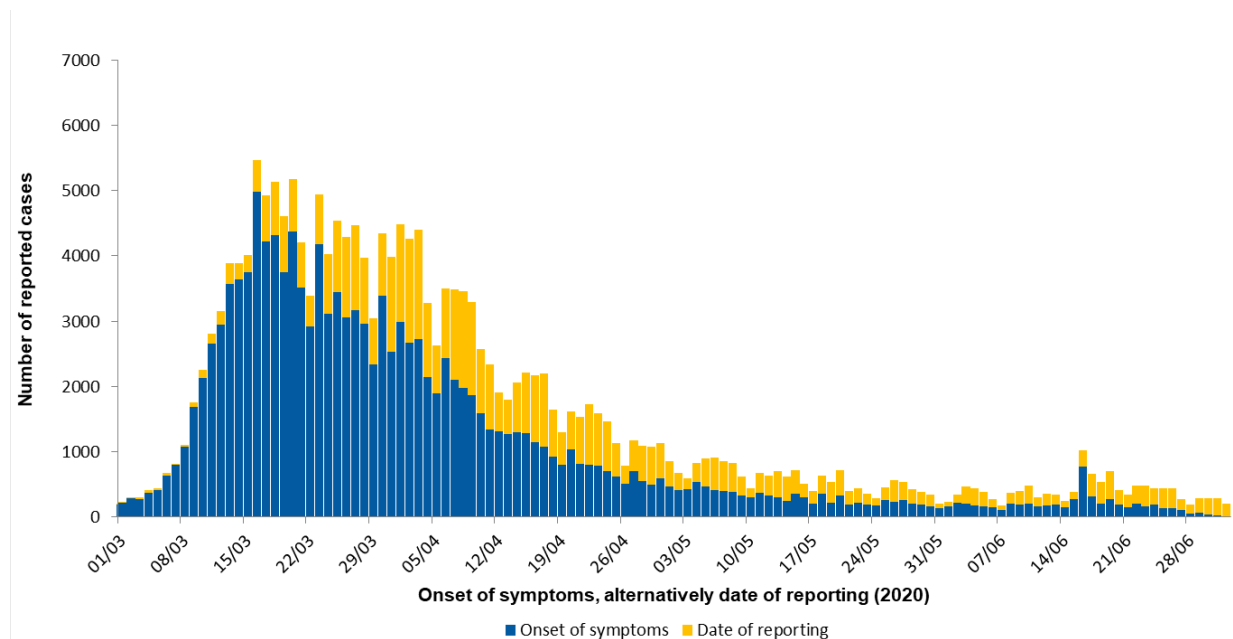


Figure 2: Number of COVID-19 cases in Germany electronically reported to the RKI by date of symptom onset or - if unknown- alternatively by date of reporting from 01/03/2020 (03/07/2020, 12:00 AM).

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, 4,922 were children under 10 years of age (2.5%), 9,472 children and teenagers aged 10 to 19 years (4.8%), 85,924 persons aged 20 to 49 years (44%), 59,357 persons aged 50 to 69 years (30%), 30,233 persons aged 70 to 89 years (16%) and 5,355 persons aged 90 years and older (2.7%). The age and/or gender is unknown in 411 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).

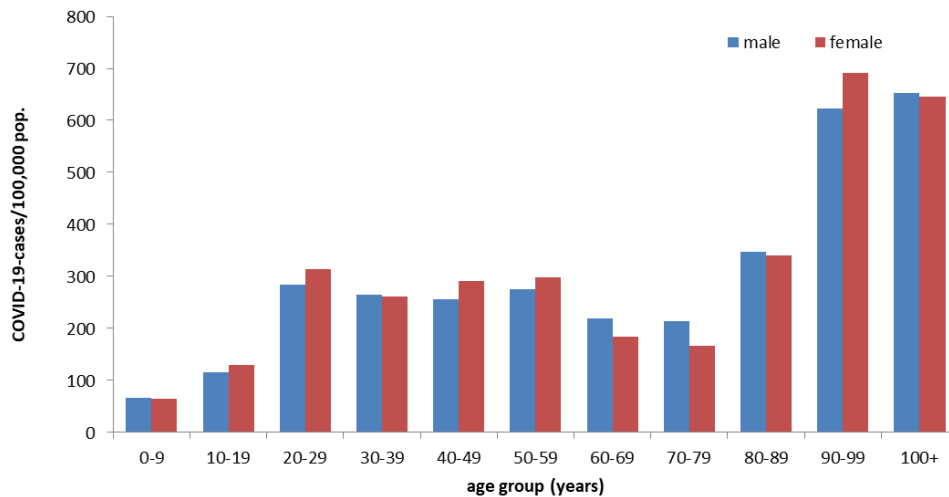


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and gender (n=195,263) for cases with information available (03/07/2020,12:00 AM).

Clinical aspects

Information on symptoms is available for 167,240 (85%) of the notified cases. Common symptoms are cough (48%), fever (41%) and rhinorrhoea (21%). Pneumonia was reported in 5,064 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 3,524 of 23,931 cases (15%).

Hospitalisation was reported for 29,374 (17%) of 170,448 COVID-19 cases with information on hospitalisation status.

Approximately 181,000 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 8,998 of notified deaths; 03/07/2020, 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	633	1,365	2,102	564	6
Female	1		3	6	21	85	226	663	1,894	1,075	44
Total	1	2	10	23	72	318	859	2,028	3,996	1,639	50

In total, 9,003 COVID-19-related deaths have been reported in Germany (4.6% of all confirmed cases). Of these, 4,980 (55%) are men and 4,018 (45%) are women (see Table 2), the gender was unknown in five cases). The median age was 82 years. Of all deaths, 7,716 (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 (194,551* cases, no data available for 48,844 cases; 03/07/2020, 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	3,390	2,427	626	2,700
	Occupation in facility	13,897	636	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*	3,303	71	1	3,000
	Occupation in facility	2,741	143	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	17,990	4,082	3,558	14,100
	Occupation in facility	9,944	422	43	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	4,497	192	6	3,800
Neither cared for, accommodated in nor working in a facility		89,945	15,902	3,430	84,500

*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.
IfSG: Protection Against Infection Law

So far, **13,897** 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 [Germersheim \(Rhineland-Palatinate\)](#) .

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.

[In the district of Germersheim, an increase in COVID-19 cases was observed in connection with a religious community.](#)

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

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 4 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.

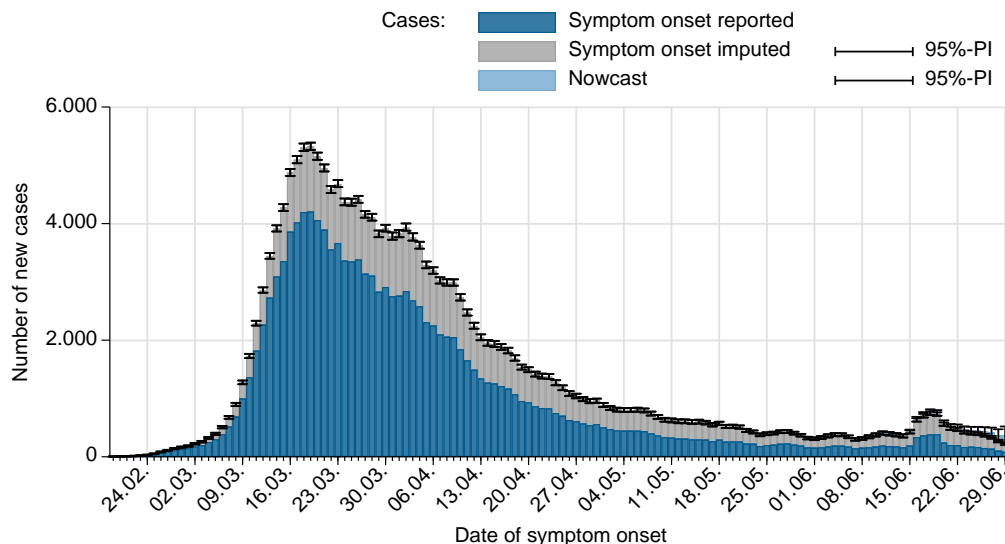


Figure 4: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 03/07/2020, 12 AM, taking into account cases up to 29/06/2020).

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 **0.84** (95%-prediction interval: **0.66 – 0.99**) and is based on electronically notified cases as of 03/07/2020, 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 **0.85** (95% prediction interval: **0.77 – 0.94**) and is based on electronically notified cases as of 03/07/2020, 12:00 AM.

In Mid-June, the estimated reproduction numbers (R-value and 7-day R-value) temporarily increased, but have since again decreased to a value of 1 or below. The marked increase 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 03/07/2020, a total of 1,274 hospitals or departments reported to the DIVI registry. Overall, 32,361 intensive care beds were registered, of which 21,312 (66%) are occupied, and 11,049 beds (34%) 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 (03/07/2020 03/07/2020, 12:15 AM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	318		-9
- of these: mechanically ventilated	161	51%	+1
Discharged from ICU	14,865		+41
- of these: deaths	3,744	25%	0

*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.

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 has been declining since mid of March. Currently, many districts are transmitting very few or no cases to the RKI. 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 (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) *(in English, French and German)*
https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Orientierungshilfe_Buerger.html
- 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-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248> *(in German)*