

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

25/08/2020 - UPDATED STATUS FOR GERMANY

<b>Confirmed cases</b>	Deaths	Deaths (%)	Recovered	
234,853	9,277	4.0%	ca. 209,300**	
(+ 1,278*)	(+ 5*)			

\*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 25/08/2020 12:00 AM)

- Since calendar week 29 the 7-day-COVID-19 incidence has risen markedly overall and in many
  federal states. The number of districts reporting zero COVID-19 cases over a period of 7 days has
  decreased markedly. Although case numbers have started to decrease in some states, this
  development remains very concerning.
- The cumulative nationwide incidence over the past 7 days was 10.2 cases per 100,000 inhabitants. A total of only 15 districts transmitted zero cases over the past 7 days. In a further 126 districts the 7-day-incidence is below 5.0/100,000 inhabitants.
- In Hesse, Bavaria and Baden-Wuerttemberg, the 7-day incidence is considerably higher, in Berlin and North Rhine Westphalia slightly higher than the national mean 7-day-incidence.
- In total, 234,853 laboratory-confirmed COVID-19 cases and 9,277 deaths associated with COVID-19 have been electronically reported to the RKI in Germany.
- Moreover, further COVID-19-related outbreaks are being reported in various settings, including nursing homes and hospitals, facilities for asylum-seekers and refugees, educational settings, various occupational settings, in the context of religious or family events and especially among travellers.

# **Epidemiological Situation in Germany**

#### General current assessment

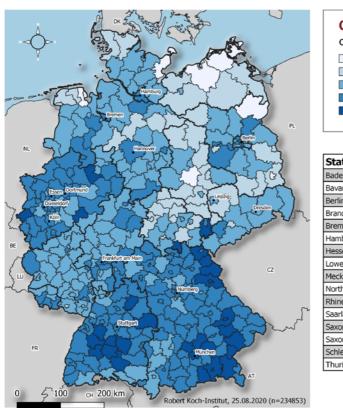
The increase in the number of reported COVID-19 cases over the past weeks can be observed in many of the federal states. It is noticeable that the average age of infection decreased over the past few weeks and that the incidence particularly in younger age groups has increased and is much higher than in older age groups.

Nationwide, there are reports of many small outbreaks in a number of administrative districts in various settings, such as larger events with family and friends. In addition, a large percentage of COVID-19 cases are being identified among travellers entering Germany, especially among younger age groups.

The number of new cases reported daily has been increasing since calender week 30. This development is very concerning and increasing in dynamic. A further worsening of the situation must be avoided. On the one hand, the increase in younger age groups needs to be stopped, on the other hand, transmission into older and vulnerable groups needs to be prevented. As soon as the number of infections rises among elderly people, hospitalisations and number of deaths will likely rise as well. This can only be prevented if the entire population continues to be committed to decreasing transmission, e.g. by consistently observing rules of physical distancing and hygiene - also outdoors -, by airing indoor areas and, where indicated, by wearing a community or face mask correctly. Large gatherings – especially indoors – should be avoided, and events with family and friends should be limited to close family members and friends.

# 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 234,853 (+1,278) laboratory-confirmed cases of COVID-19 have been electronically reported to and validated by the RKI (see Figure 1 and Table 1). A total of 15 districts reported no cases in the past 7 days. In the past few weeks, the number of districts not transmitting any COVID-19 cases over a period of 7 days decreased continuously; on 12/07/2020 the number of districts reporting zero cases still amounted to 125 districts.



COVID-19 (cumulative) cases per 100,000 population
>0,0 - 50,0 >50,0 - 100,0
>100,0 - 250,0
>250,0 - 500,0

State	cases	/100,000
Baden-Wuerttemberg	40358	364,6
Bavaria	55414	423,8
Berlin	10786	287,8
Brandenburg	3795	151,1
Bremen	1913	280,1
Hamburg	6083	330,4
Hesse	14809	236,3
Lower Saxony	16191	202,8
Mecklenburg-Vorpommern	997	61,9
North Rhine-Westphalia	57213	319,0
Rhineland-Palatinate	8713	213,3
Saarland	3080	311,0
Saxony	5827	142,9
Saxony-Anhalt	2183	98,9
Schleswig-Holstein	3927	135,6
Thuringia	3564	166,3



Figure 1: Number and cumulative incidence (per 100,000 population) of the 234,853 electronically reported COVID-19 cases in Germany by county and federal state (25/08/2020, 00:00 AM). Please see the COVID-19 dashboard (https://corona.rki.de/) for information on number of COVID-19 cases by district (local health authority).

**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 (25/08/2020, 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	40,358	185	365	1,450	13.1	1,863	16.8
Bavaria	55,414	353	424	1,835	14.0	2,634	20.1
Berlin	10,786	58	288	416	11.1	226	6.0
Brandenburg	3,795	8	151	70	2.8	169	6.7
Bremen	1,913	8	280	62	9.1	56	8.2
Hamburg	6,083	29	330	151	8.2	265	14.4
Hesse	14,809	152	236	1,073	17.1	528	8.4
Mecklenburg-Western Pomerania	997	3	62	21	1.3	20	1.2
Lower Saxony	16,191	95	203	586	7.3	661	8.3
North Rhine- Westphalia	57,213	297	319	2,018	11.3	1,802	10.0
Rhineland-Palatinate	8,713	46	213	409	10.0	243	5.9
Saarland	3,080	4	311	69	7.0	174	17.6
Saxony	5,827	3	143	74	1.8	225	5.5
Saxony-Anhalt	2,183	3	99	53	2.4	65	2.9
Schleswig-Holstein	3,927	23	136	114	3.9	160	5.5
Thuringia	3,564	11	166	57	2.7	186	8.7
Total	234,853	1,278	283	8,458	10.2	9,277	11.2

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 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 79,836 cases (34%), thus their date of reporting is provided.

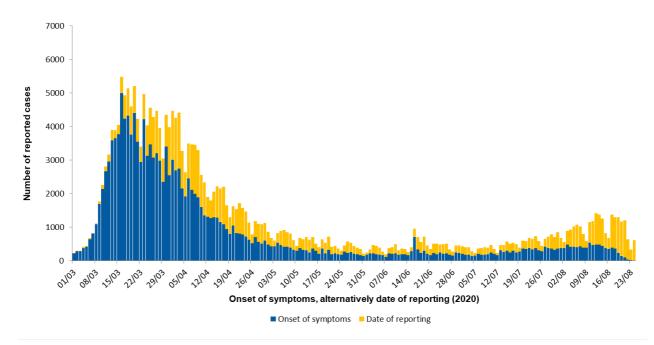


Figure 2: Number of COVID-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or –if unknown- alternatively by date of reporting since 01/03/2020 (25/08/2020, 12:00 AM).

## **Demographic distribution of cases**

Of all notified cases, 51% are female and 49% are male. Among all notified cases for whom data on age and gender were reported, 8,060 were children under 10 years of age (3.4%), 14,914 children and teenagers aged 10 to 19 years (6.4%), 108,071 persons aged 20 to 49 years (46%), 65,690 persons aged 50 to 69 years (28%), 31,900 persons aged 70 to 89 years (14%) and 5,549 persons aged 90 years and older (2.4%). Age and/or gender were unknown in 669 notified cases. Cases had a mean age of 46 years (median age 46 years). The highest incidences are seen in persons aged 90 years and older (Figure 3).

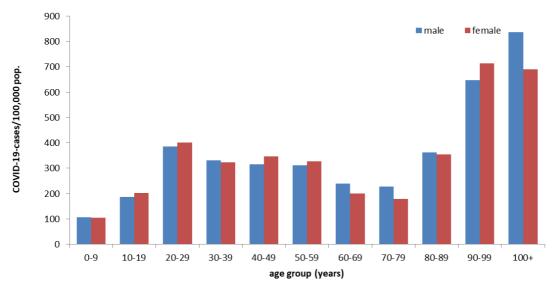


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and gender (n=232,915) for cases with information available (25/08/2020,12:00 AM).

The illustration of reported COVID-19 cases in Germany according to the proportion of cases per age group and reporting week in Figure 4 shows a high proportion of cases at the beginning of the pandemic in reporting weeks 11 to 14 in the age groups 20 - 59 years. With the decrease in the number of cases from reporting week 15 onwards, the proportion among persons aged 80 and over increased sharply, but then decreased again continuously from reporting week 17 to reporting week 24, accompanied by a

but then decreased again continuously from reporting week 17 to reporting week 24, accompanied by a significant decrease in the number of cases. This development continued in the following weeks. In comparison, the proportion of cases in the younger age groups between 0 and 29 years of age increased in the same period, but with a concurrent decrease in the number of cases. After reporting week 24, the proportions across all age groups entered a plateau phase with only slight fluctuations, but as of week 32 the proportion of cases among 10 to 30 year olds is increasing. The absolute number of cases has been increasing since week 29.

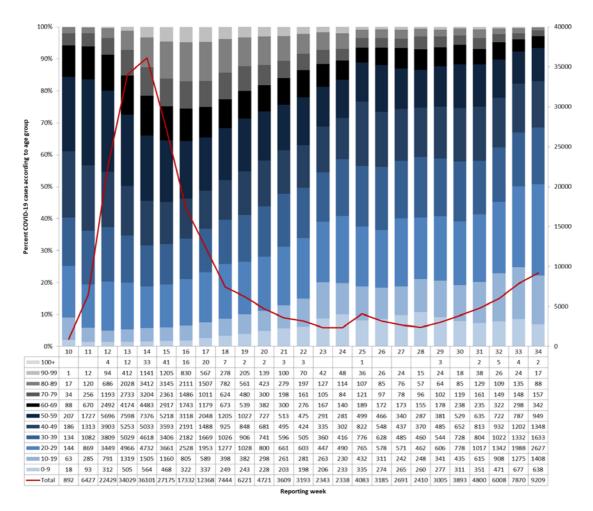


Figure 4: Percent of notified COVID-19 cases by age group and reporting week (n=233,776 cases with respective data in the weeks 10 to 34 (25/08/2020, 12:00 AM). The total number of weekly cases is depicted by the red line.

## Clinical aspects

Information on symptoms is available for 195,563 (83%) of the notified cases. Commonly reported symptoms were cough (45%), fever (38%), rhinorrhoea (20%) and sore throat (19%). Pneumonia was reported in 5,418 cases (3%). 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 7,798 of 51,222 cases (15%).

Hospitalisation was reported for 32,045 (16%) of 203,098 COVID-19 cases with information on hospitalisation status. Approximately 209,300 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:** The COVID-19 cases reported to the RKI by sex and the proportion of hospitalization and deceased for the reporting weeks 10 - 34 (25/08/2020, 12:00 AM).

Week	Total cases	Mean age (years)	Men	Women	Number information on hospitalisation	Number hospitalized	Percent hospitalized	Number of deaths	Percent deaths
10	892	42	53%	47%	800	162	20%	12	1.3%
11	6,428	45	56%	44%	5,612	521	9%	85	1.3%
12	22,442	2 45	55%	45%	19,334	2,196	11%	473	2.1%
13	34,035	5 48	50%	50%	29,424	5,070	17%	1,446	4.2%
14	36,108	3 51	45%	55%	31,482	6,032	19%	2,244	6.2%
15	27,179	9 52	44%	56%	24,020	4,680	19%	1,859	6.8%
16	17,339	9 51	45%	55%	15,436	3,337	22%	1,209	7.0%
17	12,374	1 50	45%	55%	10,903	2,206	20%	715	5.8%
18	7,444	48	48%	52%	6,576	1,348	20%	374	5.0%
19	6,222	47	48%	52%	5,582	1,056	19%	249	4.0%
20	4,722	45	49%	51%	4,149	721	17%	155	3.3%
21	3,611	43	50%	50%	3,077	504	16%	105	2.9%
22	3,195	42	51%	49%	2,732	409	15%	60	1.9%
23	2,348	39	51%	49%	2,047	305	15%	43	1.8%
24	2,338	37	54%	46%	2,055	278	14%	31	1.3%
25	4,085	36	59%	41%	3,694	306	8%	33	0.8%
26	3,193	37	55%	45%	2,812	291	10%	21	0.7%
27	2,691	36	52%	48%	2,447	255	10%	23	0.9%
28	2,413	36	56%	44%	2,144	244	11%	22	0.9%
29	3,009	36	52%	48%	2,583	314	12%	28	0.9%
30	3,910	36	52%	48%	3,322	316	10%	28	0.7%
31	4,805	36	50%	50%	3,929	358	9%	21	0.4%
32	6,032	34	54%	46%	4,965	368	7%	19*	0.3%
33	7,883		53%	47%	6,409	370	6%	14*	0.2%
34	9,241		55%	45%	6,981	323	5%	7*	0.1%

<sup>\*</sup> Data not yet meaningful, as outcome of the diseases in these weeks is still unclear

Table 2 shows the distribution of hospitalization and deaths by reporting week. The mean age of COVID-19 cases has been decreasing since reporting week 16. The proportion of hospitalized patients has been decreasing since week 17. The highest percentage of deaths was observed in week 16. Since then the percentage of COVID-19 deaths has been decreasing continuously. The weekly number of total cases has been increasing since week 29.

A total of 9,277 COVID-19-related deaths have been reported in Germany (4.0% of all confirmed cases). Of these, 5,138 (55%) are men and 4,135 (45%) are women (see Table 3), the gender is unknown in four cases. The mean age of COVID-19 cases reported to have died was 81 years (median: 82 years). Of all deaths, 7,931 (85%) were in people aged 70 years or older, but only 16% of all cases were in this age group. Thus 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.

Table 3: Number of notified COVID-19 deaths by age group and gender electronically reported to RKI (Data available for 9,273 of notified deaths; 25/08/2020, 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	59	243	660	1,406	2,153	585	6
Female	1		3	6	22	89	235	681	1,948	1,104	46
Total	1	2	10	23	81	332	895	2,087	4,101	1,689	52

# 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 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 4: Notified COVID-19-cases according to possible occupation, accommodation or care in facilities relevant for transmission of infectious diseases, reported to RKI (233,446\* cases, no data available for 59.308 cases; 25/08/2020, 12:00 AM)

Facility according to		Total	Hospitalised	Deaths	Recovered (estimate)
§ 23 IfSG (e.g. hospitals, outpatient clinics and practices, dialysis clinics or	Cared for / accommodated in facility	3,842	2,741	674	3,000
outpatient nursing services)	Occupation in facility	14,917	673	23	14,600
§ 33 IfSG (e.g. day care facilities, kindergartens, facilities for after school care, schools or other	Cared for / accommodated in facility*	5,781	103	1	4,900
educational facilities, children's homes, holiday camps)	Occupation in facility	3,313	160	7	3,100
§ 36 IfSG (e.g. facilities for the care of older, disabled, or other persons in need of care, homeless shelters, community facilities for asylumseekers, repatriates and refugees as well as other mass accommodation and prisons)	Cared for / accommodated in facility	19,050	4,250	3,662	15,200
	Occupation in facility	10,515	456	40	10,300
§ 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	5,468	233	5	5,300
Neither cared for, accommodated in nor working in a facility		111,252	17,467	3,576	100,400

<sup>\*</sup>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

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 4). 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 41 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.

## Possible countries of exposure

Of the 234,853 reported COVID-19 cases, information regarding the country of exposure was missing in 77.547 (33%) cases.

In reporting week 11, the proportion of all cases was 45% (2,946 cases) for cases that had a possible foreign country as place of exposure and thereby the highest so far. It then fell steadily to 0.3% in reporting week 19 (21 cases) as a result of travel restrictions. Since the 25th reporting week, borders have reopened, initially in Europe. Since then, the proportion of cases reporting a probable country of infection abroad has markedly increased, to 42% (3,858 cases) in week 34 (Figure 4). In weeks 31-34, 2020, 10,139 persons reported a possible site of infection abroad, naming a total of 10,387 countries (more than one country specified in some cases) .

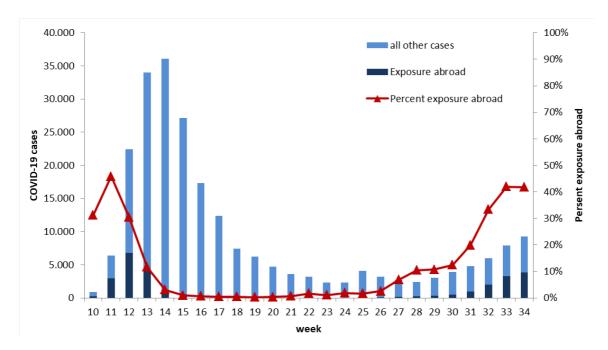


Figure 5: Presentation of the cases with probable place of infection abroad compared to all other cases (exposure in Germany and place of exposure unknown) and the proportion of cases with exposure abroad, in reporting week 10 to 34, 2020.

Table 5 lists the top 15 countries most frequently reported as the probable place of infection in weeks 31 to 34. The Western Balkan countries, as well as Turkey, Bulgaria, Spain and Romania were most frequently reported as the country of exposure. In week 34 France was also frequently mentioned as the country of infection. When looking at the different age groups (not shown), it is noticeable that among the cases with reports of a place of infection in Kosovo and Turkey, children and middle-aged persons are over-represented, indicating possible family related visits. On the other hand, in the cases with a probable place of infection in Spain, Croatia and Bulgaria, persons between 20-29 years of age were over-represented, suggesting tourism for recreation and pleasure.

The proportion of cases with a probable place of infection abroad has increased significantly in recent weeks. Through consistent prevention and early case identification, transmission and subsequent cases can be greatly reduced. It remains essential that people follow the rules of physical distancing and hygiene and avoid crowds, and that anyone who develops symptoms compatible with COVID-19 be tested immediately. In addition, travellers who stayed in a COVID-19 risk area within 14 days of entry must maintain a 14-day quarantine unless they have a negative test result (see <a href="https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/">https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/</a>).

Table 5: Countries of exposures reported for COVID-19 cases notified in weeks 31 to 34; 2020 (a total of 20,278 reportet locations, multiple answers possible (25/08/2020, 0:00 Uhr).

Country of exposure	Week 31	Week 32	Week 33	Week 34	Total
Germany	2,515	2,480	2,573	2,323	9,891
Kosovo	341	562	814	811	2,528
Croatia	45	234	578	940	1,797
Turkey	123	393	648	426	1,590
Bosnia and Herzegovina	53	81	155	239	528
Bulgaria	50	117	166	159	492
Spain	27	76	119	256	478
Romania	40	56	109	153	358
Macedonia	30	51	80	105	266
Albania	24	44	70	95	233
Serbia	55	45	78	52	230
France	13	30	58	117	218
Poland	34	66	56	39	195
Austria	10	26	69	65	170
Italy	9	28	43	74	154
Malta	4	29	39	32	104
Rest	141	221	294	390	1,046
Total	3,514	4,539	5,949	6,276	20,278

#### **Outbreaks**

In 16 districts an increased incidence of ≥25 cases in 7 days/100.000 inhabitants was reported, including the city of Offenbach in Hesse with an incidence of >50 cases/ 100.000 inhabitants in the past 7 days. The federal states mainly affected are Hesse, Bavaria and Baden-Wuerttemberg. The increased incidence in the affected districts is mainly due to people returning home from vacations abroad, but also to transmission in family and other private events.

Further COVID-19-related outbreaks continue to be reported in nursing homes, hospitals, facilities for asylum seekers and refugees, community facilities, various occupational settings and in connection with religious events.

# 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.

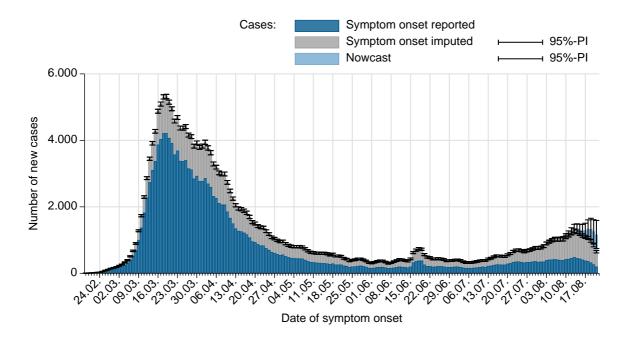


Figure 6: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 25/08/2020, 12 AM, taking into account cases up to 21/08/2020).

A sensitive 4-day-R-value 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. Furthermore, outbreak dynamics may be influenced widespread testing performed among affected persons, leading to therapid detection of many additional COVID-19 cases. This can lead to relatively large fluctuations in the estimated R-value, especially if the total number of new cases is small.

The current estimate of the 4-day R-value is 0.90 (95%-prediction interval: 0.74 - 1.10) and is based on electronically notified cases as of 25/08/2020, 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 0.92 (95% prediction interval: 0.83 - 1.03) and is based on electronically notified cases as of 25/08/2020, 12:00 AM.

The reported R values has been around 1 since mid-July 2020. According to current observations, this seems to be associated to a great extent with an increasing number of cases among travel returnees, a larger number of smaller outbreaks and the overall case numbers in Germany, which have increased steadily in recent weeks since the relaxation of disease control measures.

See also the RKI's statement on high case numbers of 24/07/2020 <a href="https://www.rki.de/DE/Content/InfAZ/N/Neuartiges">https://www.rki.de/DE/Content/InfAZ/N/Neuartiges</a> Coronavirus/Gestiegene Fallzahlen.html

Sample calculations as well as an excel sheet presenting both R-values with daily updates can be found under <a href="https://www.rki.de/covid-19-nowcasting">www.rki.de/covid-19-nowcasting</a>. 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 (<a href="https://www.rki.de/covid-19-faq">https://www.rki.de/covid-19-faq</a>).

A detailed description of the methodology is available at <a href="https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/17/Art\_02.html">https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/17/Art\_02.html</a> (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 25/08/2020, a total of 1,280 hospitals or departments reported to the DIVI registry. Overall, 30,532 intensive care beds were registered, of which 21,494 (70%) are occupied, and 9,038 (30%) are currently available. The number of COVID-19 cases treated in participating hospitals is shown in Table 6.

Table 6: COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (25/08/2020, 12:15 PM).

	Number of patients	Percentage	Change to previous day*
Currently in ICU	223		-22
- of these: mechanically ventilated	133	60%	1
Discharged from ICU	16,351		60
- of these: deaths	3,960	24%	7

<sup>\*</sup>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 very dynamic and must be taken seriously. The number of cases continues to increase worldwide. The number of newly reported cases declined from mid-March until early July. Since then, case numbers have been steadily increasing with a clear acceleration in recent weeks. At the same time, the number of districts that have not reported any cases in the last 7 days is decreasing. There are larger and smaller outbreaks nationwide, especially in connection with celebrations in the circle of family and friends and at group events. Travel returnees, especially in the younger age groups, also contribute to the increase in the number of cases. Vaccines and anti-viral therapeutics are currently not available. 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

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, 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

- 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 travelers entering Germany: Frequently asked questions and answers (in German) <a href="https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/faq-tests-einreisende.html">https://www.bundesgesundheitsministerium.de/coronavirus-infos-reisende/faq-tests-einreisende.html</a>
- Corona-Warn-App

  <a href="https://www.rki.de/DE/Content/InfAZ/N/Neuartiges">https://www.rki.de/DE/Content/InfAZ/N/Neuartiges</a> Coronavirus/WarnApp/Warn App.html
- Regulations for persons entering Germany in connection with the novel coronavirus SARS-CoV-2
   (15.06.2020) <a href="https://www.rki.de/DE/Content/InfAZ/N/Neuartiges">https://www.rki.de/DE/Content/InfAZ/N/Neuartiges</a> Coronavirus/Transport/BMG Me
   rkblatt 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: <a href="https://www.bundesregierung.de/breg-de/themen/coronavirus/corona-bundeslaender-1745198">https://www.bundesregierung.de/breg-de/themen/coronavirus/corona-bundeslaender-1745198</a> (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 indivduals must be maintained in public spaces:

  <a href="https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248">https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248</a> (in German)