



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

26/05/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered
<b>179,002</b> (+ 432*)	<b>8,302</b> (+ 45*)	<b>4.6%</b>	<b>ca. 162,000**</b>

\*Change from previous day; \*\*Estimate

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

### Summary (as of 26/05/2020, 12:00 AM)

- In total, **179,002** COVID-19 cases and **8,302** deaths due to COVID-19 have been electronically reported to the Robert Koch Institute in Germany.
- The cumulative incidence (cases per 100,000) of COVID-19 is currently highest in Bavaria (**355**), Baden-Wuerttemberg (311), Hamburg (275) and Saarland (**275**).
- Most cases (67%) are between 15 and 59 years old. Women (52%) and men (48%) are almost equally affected. Slightly more men (55%) than women (45%) died.
- People aged 70 years or older account for 86% of deaths but only 19% of all cases.
- COVID-19 outbreaks continue to be reported in nursing homes and hospitals.
- Outbreaks of COVID-19 have been reported in several federal states (including in institutions for asylum seekers and refugees, in connection with a religious event or in meat processing plants).

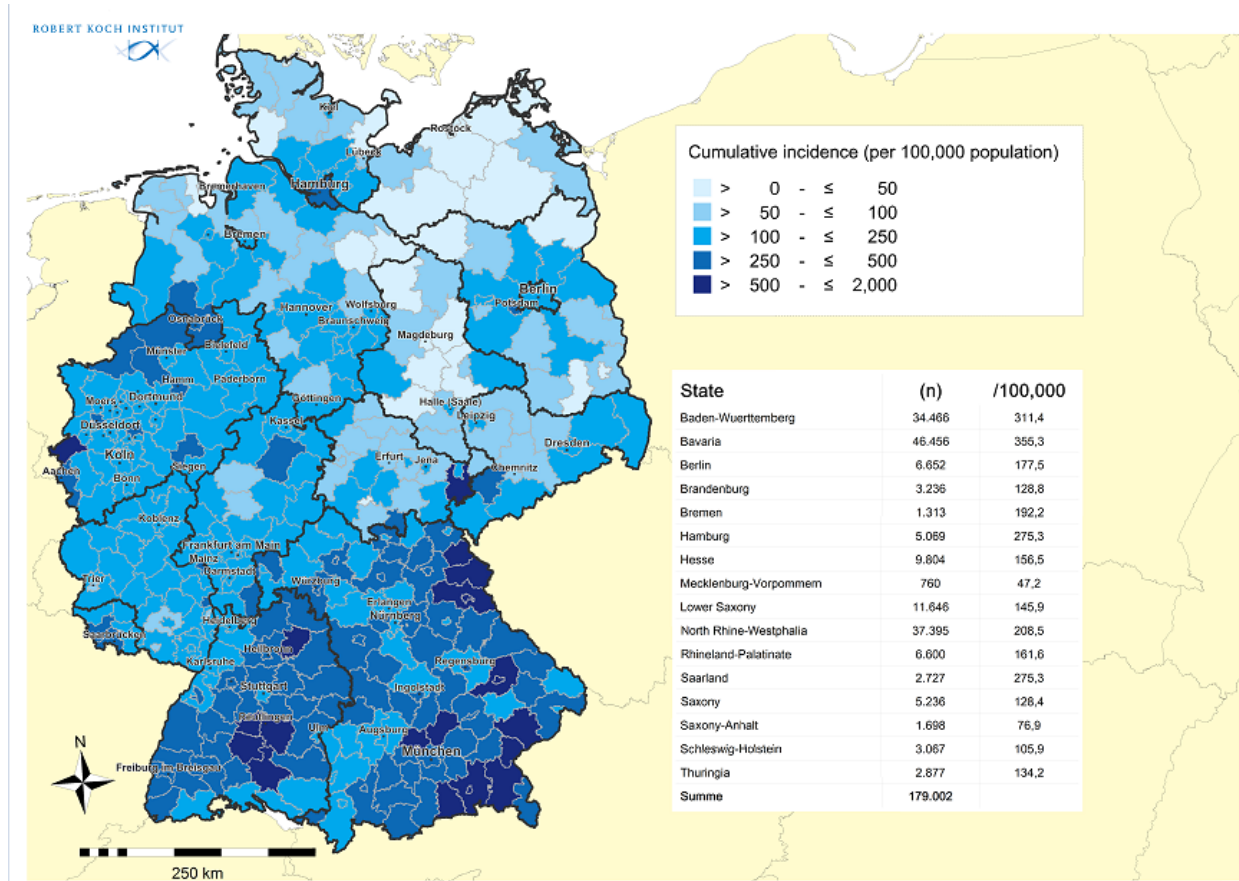
# Epidemiological Situation in Germany

## Geographical distribution of cases

Epidemiological analyses are based on validated cases notified electronically to the Robert Koch Institute (RKI) in line with the Protection Against Infection Law (Data closure: 12:00 AM daily). Since January 2020, a total of **179,002 (+432)** laboratory-confirmed cases of coronavirus disease 2019 (COVID-19) have been electronically reported to and validated by the RKI, including **8,302** deaths (see Table 1 and Figure 1). A total of **88 districts** reported no cases in the past 7 days. Information on confirmed cases is also available on the RKI website at [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Fallzahlen.html](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 notified laboratory-confirmed COVID-19 cases and deaths for each federal state, Germany (26/05/2020, 12:00 AM).

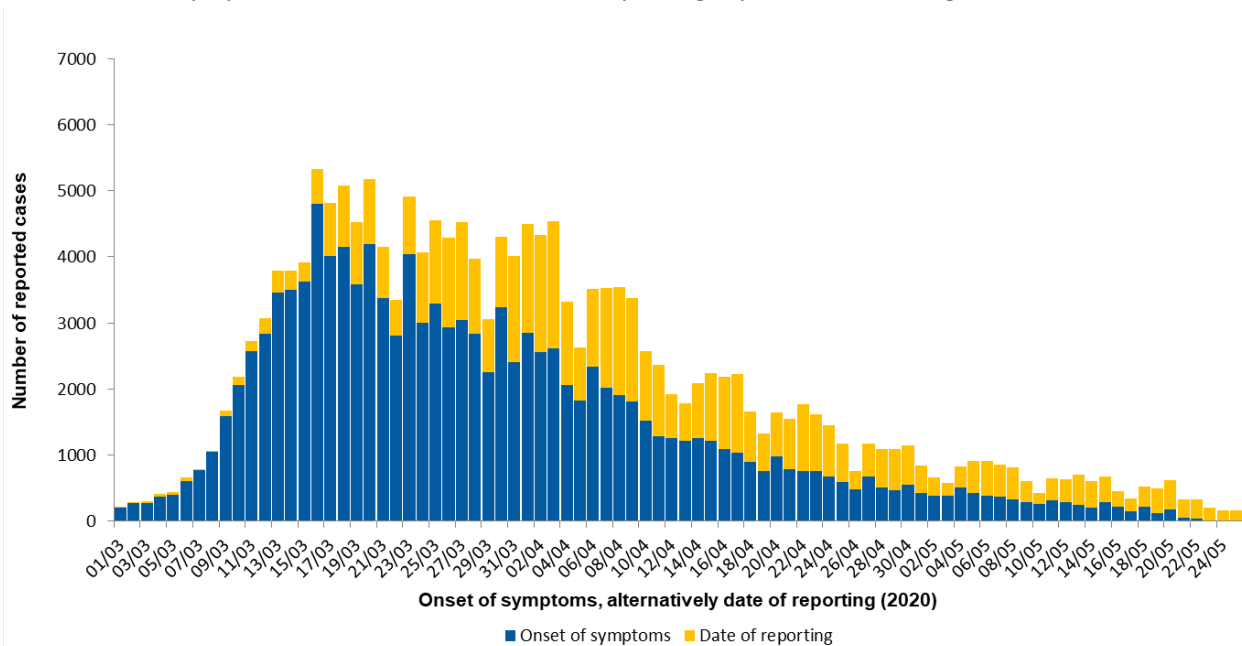
Federal State	Total Number of cases	Number of new cases	Cases/ 100,000 pop.	Cases in the last 7 days	7-day incidence per 100,000 pop.	Number of deaths	Number of deaths/ 100,000 pop.
Baden-Wuerttemberg	34,466	35	311	368	3.3	1,707	15.4
Bavaria	46,456	130	355	738	5.6	2,401	18.4
Berlin	6,652	10	177	155	4.1	191	5.1
Brandenburg	3,236	22	129	29	1.2	154	6.1
Bremen	1,313	1	192	75	11.0	42	6.1
Hamburg	5,069	0	275	23	1.2	241	13.1
Hesse	9,804	34	156	336	5.4	462	7.4
Mecklenburg-Western Pomerania	760	0	47	10	0.6	20	1.2
Lower Saxony	11,646	68	146	361	4.5	574	7.2
North Rhine-Westphalia	37,395	97	209	769	4.3	1,571	8.8
Rhineland-Palatinate	6,600	4	162	82	2.0	228	5.6
Saarland	2,727	11	275	22	2.2	158	16.0
Saxony	5,236	5	128	89	2.2	207	5.1
Saxony-Anhalt	1,698	4	77	19	0.9	54	2.4
Schleswig-Holstein	3,067	5	106	64	2.2	139	4.8
Thuringia	2,877	6	134	120	5.6	153	7.1
<b>Total</b>	<b>179,002</b>	<b>432</b>	<b>215</b>	<b>3,260</b>	<b>3.9</b>	<b>8,302</b>	<b>10.0</b>



**Figure 1:** Number and cumulative incidence (per 100,000 population) of the 179,002 electronically reported COVID-19 cases in Germany by county and federal state (26/05/2020, 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. With regard to all cases reported from 01.03.2020 onwards, the onset of symptoms is unknown in 55,502 cases (31%). When the onset of symptoms is unknown, the date of reporting is provided in the figure.

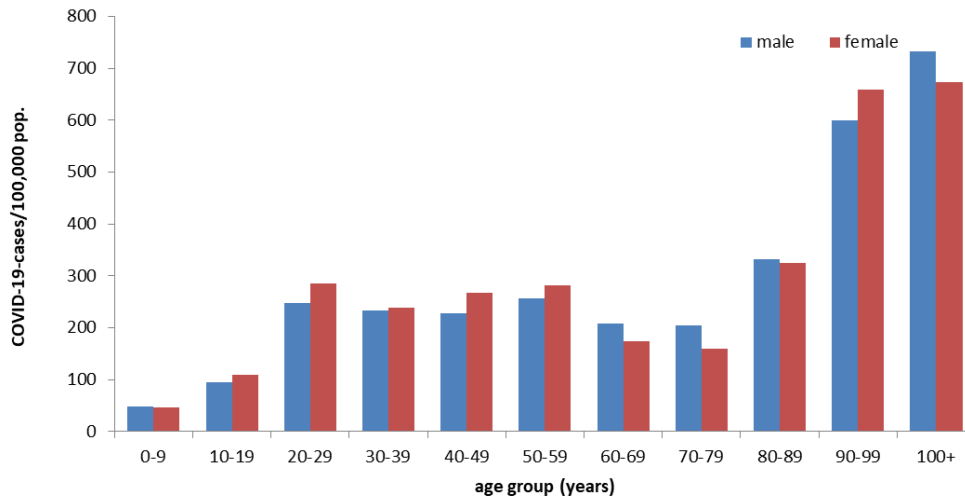


**Figure 2:** Number of electronically reported COVID-19 cases in Germany by date of symptom onset and by date of reporting from 01/03/2020 (26/05/2020, 12:00 AM).

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 notified cases, 3,579 were children under 10 years of age (2.0%), 7,877 children and teenagers aged 10 to 19 years (4.4%), 77,303 persons aged 20 to 49 years (43%), 56,044 persons aged 50 to 69 years (31%), 28,936 persons aged 70 to 89 years (16%) and 5,140 persons aged 90 years and older (2.9%). The age is unknown in 123 notified cases. The mean age of cases is 49 years (median age 50 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=178,519) for cases with information available (26/05/2020, 12:00 AM).

Table 2 shows the mean age, gender distribution, percentage of hospitalized cases and deaths among cases reported in calendar weeks 10 to 21. The percentage of deaths in weeks 20 and 21 are not yet meaningful, as the outcome is not yet known for all cases.

**Table 2:** The COVID-19 cases reported to the RKI according to gender and the proportion of hospitalization and deceased for the reporting weeks 10 - 21 (12.05.2020, 12AM).

Reporting week	10	11	12	13	14	15	16	17	18	19	20	21
Total cases	900	6,380	22,428	34,025	36,071	27,171	17,314	12,411	7,438	6,209	4,696	3,568
Mean age	43	45	46	48	51	52	52	51	49	47	46	44
Men	53%	56%	55%	49%	45%	43%	45%	45%	48%	48%	50%	50%
Women	47%	44%	45%	51%	55%	57%	55%	55%	52%	52%	50%	50%
Number information on hospitalisation	789	5,456	18,704	28,455	30,475	23,278	14,909	10,412	6,331	5,262	3,880	2,713
Number hospitalized	166	499	2,124	4,925	5,862	4,530	3,224	2,124	1,293	987	661	401
Percent hospitalized	21%	9%	11%	17%	19%	19%	22%	20%	20%	19%	17%	
Number of deaths	11	76	462	1,407	2,156	1,769	1,142	656	326	178	84	34
Percent deaths	1.2%	1.2%	2.1%	4.1%	6.0%	6.5%	6.6%	5.3%	4.4%	2.9%	1.8%*	1.0%*

\*Data not yet meaningful, as the outcome for all cases is not yet known

The depiction of notified COVID-19 cases in Germany according to age group and reporting week reveals a noticeable increase in the proportion of cases among persons over 70 years of age in weeks 12 to 15 (Figure 4). The increase can be explained to a large extent by the occurrence of outbreaks in retirement

and nursing homes as well as hospitals. Since week 18, the percentage in this age group has decreased somewhat.

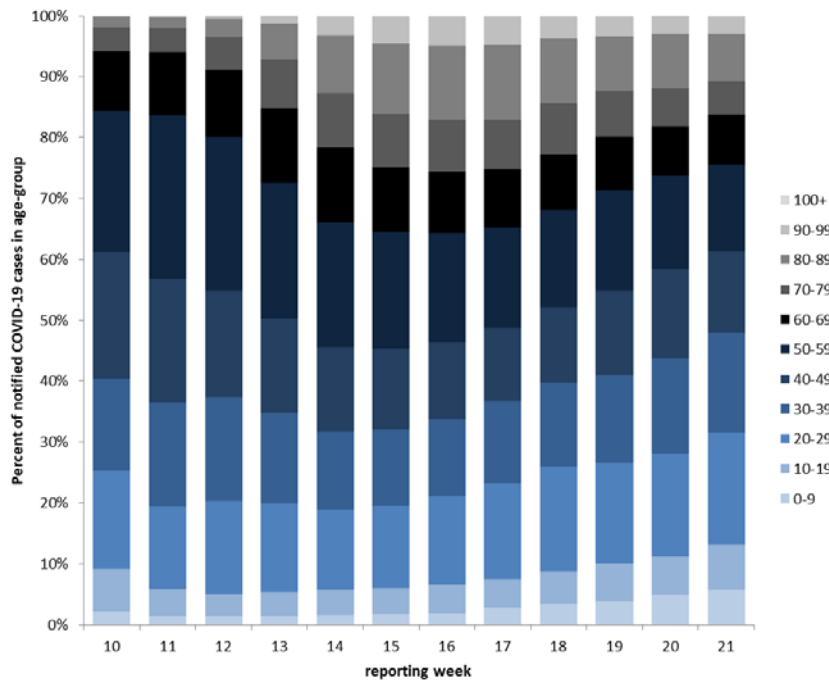


Figure 4: Percent of notified Covid-19 cases by age group and reporting week (n=178,490 cases with respective data in the weeks 10 to 21 as of 26/05/2020 12 AM).

### Clinical aspects

Information on symptoms is available for 150,604 (84%) of the notified cases. Common symptoms are cough (49%), fever (41%) and rhinorrhoea (21%). Pneumonia was reported in 4,474 cases (3.0%). Since calendar week 17, cases are reported to the RKI as a distinct COVID-19 surveillance category. Since then, loss of smell and taste can also be entered as symptoms. At least one of these two symptoms was reported in 1,802 of 11,939 cases (15%).

Hospitalisation was reported for 26,883 (18%) of 150,944 COVID-19 cases with information on hospitalisation status.

Approximately 162,000 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 the number of recovered cases.

In total, 8,302 COVID-19-related deaths have been reported in Germany (4.6% of all confirmed cases). Of these, 4,597 (55%) are men and 3,700 (45%) are women (see Table 3; gender was unknown in five cases). The median age was 82 years. Of all deaths, 7,148 (86%) were in people aged 70 years or older, but only 19% 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.

Table 3: Number of notified COVID-19 deaths by age group and gender (Data available for 8,297 of notified deaths; 26/05/2020, 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	6	14	46	211	571	1,254	1,960	528	5
Female	1		3	6	17	71	204	605	1,766	982	45
Total	1	2	9	20	63	282	775	1,859	3,726	1,510	50

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

## Occupation, accommodation or care in facilities

In accordance with the Protection Against Infection Law (IfSG), the RKI receives information on occupation, accommodation or care in a facility relevant for infection control for reported COVID-19 cases (Table 4).

Since information on care/attendance, accommodation and occupation in these facilities is missing in 29% of cases, the proportion of cases cared for, accommodated or working in these facilities shown here should be considered minimum values. Among the COVID-19 cases reported as being cared for/attending, accommodated in or working in all of the above mentioned facilities, the proportion of cases that actually acquired their infection in these settings is unknown.

Until now, 12,495 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.

**Table 4: Notified COVID-19-cases according to possible occupation, accommodation or care in facilities relevant for transmission of infectious diseases (178,072\* cases, no data available for 52,144 cases; 26/05/2020, 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	2,834	1,976	540	2,100
	Occupation in facility	12,495	573	20	12,100
§ 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*	2,101	57	1	2,000
	Occupation in facility	2,401	113	7	2,300
§ 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	15,903	3,574	3,158	11,300
	Occupation in facility	8,987	385	45	8,500
§ 42 IfSG (e.g. kitchens in the catering trade, in inns, restaurants, canteens, cafés, or other establishments with or for communal catering)	Occupation in facility	2,291	149	54	1,900
Neither cared for, accommodated in nor working in a facility		78,916	14,349	3,127	73,400

\*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

## Outbreaks

Currently, the 7-day-incidence is elevated [in the district of Coburg](#) and Lichtenfels in Bavaria, the city of Regensburg in Bavaria, and in the district of Sonneberg in Thuringia.

The increase in new COVID-19 cases in the Coburg district is related to infected persons in nursing homes, which are related to dialysis treatment. The health authorities immediately took action to interrupt this chain of infection. These measures include series of tests in the care facilities, separation measures and visitor bans.

In the district of Lichtenfels an outbreak was reported in a nursing home with altogether over 20 cases.

In Regensburg, an outbreak was detected among residents of an accommodation for asylum seekers. Moreover a COVID-19 outbreak was detected among residents and staff in a refugee facility in St. Augustin in Northrhine-Westphalia. In the district of Sonneberg high incidences are related to outbreaks in nursing homes and medical facilities.

As of 23.05.2020, 9 participants of a closed event in a restaurant in the district of Leer in Lower Saxony tested positive for COVID-19; about 70 contact persons were quarantined. According to investigations by public health authorities, there were indications that contact restrictions were not followed. This is under investigation.

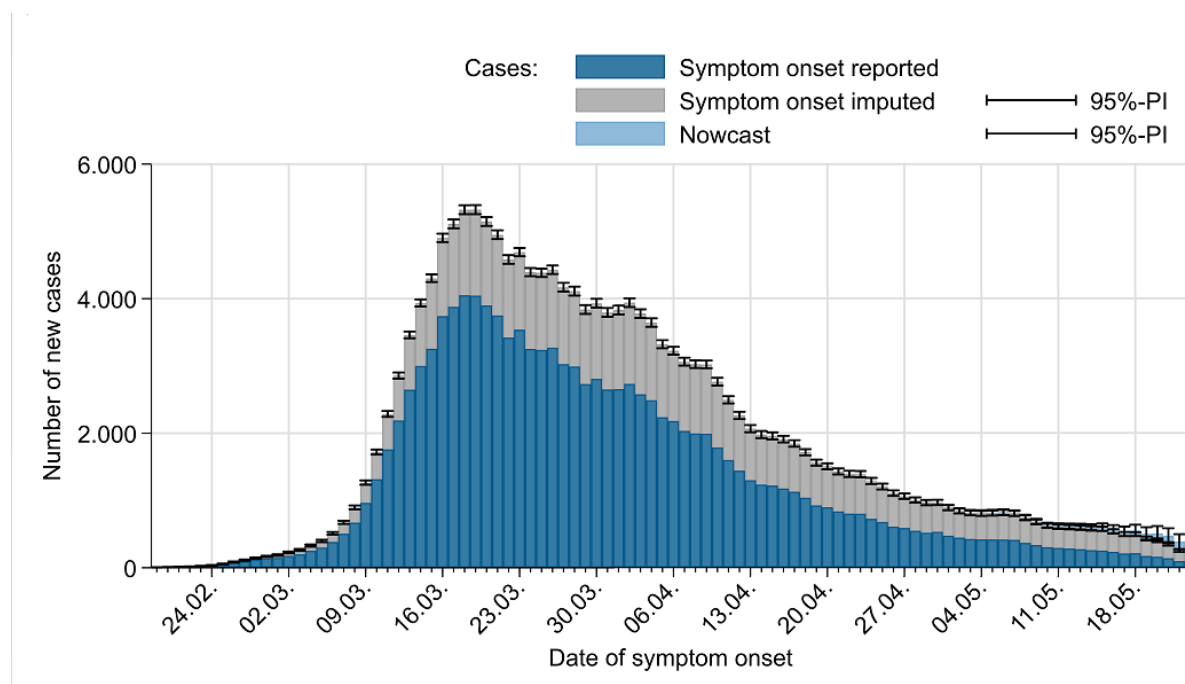
A COVID-19 outbreak in the context of a religious event of a Baptist church in Frankfurt/Main in Hesse is currently under investigation. To date, 107 cases meeting the RKI reference case definition have been identified. Local health authorities are still investigating the circumstances of the outbreak.

In addition, COVID-19 outbreaks among workers of meat processing plants have been reported in several federal states, among others in North Rhine-Westphalia, Bavaria and Lower Saxony.

Another outbreak occurred at a German Parcel Service (DPD) branch in the district of Heinsberg. The 7-day COVID-19 incidence has decreased following implementation of control measures.

### 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 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.



**Figure 5:** Display of cases with known onset of the disease (dark blue), estimated onset of the disease for cases where the onset of the disease has not been reported (grey) and estimated course of already symptomatic cases (light blue) (as of 26/05/2020 12 AM, taking into account cases up to 22/05/2020).

The reproduction number, R, is defined as the mean number of people infected by an infected person. R can only be estimated based on statistical analyses such as nowcasting and not directly extracted from the notification system.

The R-value reported to date reflects the trend in the number of incident cases with a high degree of sensitivity. This value is thus sensitive to short-term changes in the number of cases - such as those caused by individual outbreaks - which can lead to relatively large fluctuations, especially if the total number of new cases is relatively low. In addition to this sensitive R-value, the RKI therefore now provides a second, more stable 7-day R-value, which is based on data from a longer time period and is therefore less subject to short-term fluctuations. Thus, it reflects trends more reliably, but is based on infections that occurred on average earlier than those on which the more sensitive R-value is based.

Both R-values are estimated on the basis of nowcasting. The nowcasting predicts the number of cases with illness onset up to the date of 4 days ago, as no reliable prediction can be made about the number of new cases in the last 3 days.

The sensitive R-value reported so far can be estimated using a moving 4-day average of the number of incident cases as estimated by nowcasting. It compares the 4-day mean of incident cases on one day with the corresponding mean 4 days before. Thus, taking into account that infection occurs four to six days before the onset of symptoms, the daily sensitive R-value represents the course of infection approximately one to two weeks ago. The current estimate is  $R = 0.70$  (95% prediction interval:  $0.59 - 0.82$ ) and is based on electronically notified cases as of 26/05/2020, 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. The 7-day R-value then compares the 7-day average of the new cases on one day with the 7-day average four days earlier. The 7-day R thus 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  $0.78$  (95% prediction interval:  $0.72 - 0.84$ ) and is based on electronically notified cases as of 26/05/2020, 12:00 AM.

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](http://www.rki.de/covid-19-nowcasting). A detailed methodological explanation of the more stable 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](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 26/05/2020, a total of **1,271** hospitals or departments reported to the DIVI registry. Overall, **32,403** intensive care beds were registered, of which **20,224 (62%)** are occupied, and **12,179 beds (38%)** are currently available. The number of COVID-19 cases treated in participating hospitals is shown in Table 5.



**Table 5:** COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (26/05/2020, 9:15 AM).

	Number of patients	Percentage	Change to previous day
<b>Currently in ICU</b>	821		-52
- of these: mechanically ventilated	525	64%	-22
<b>Discharged from ICU</b>	13,161		+224
- of these: deaths	3,511	27%	+47

## 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 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

- For persons entering Germany from EU countries, Schengen-associated countries or the UK the federal and state governments recommend quarantine if the country of origin has a high COVID-19 incidence (>50 cases/100,000 inhabitants in the past 7 days).  
[https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Quarantaene\\_Einreisen\\_Deutschland.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Quarantaene_Einreisen_Deutschland.html) (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/>.
- RKI teams are currently supporting outbreak containment measures with a focus on outbreaks in retirement and health care homes as well as hospitals in several federal states.
- 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)
- German parliament passes second law to protect the population in the event of an epidemic situation of national importance on 14/05/2020 (in German)  
<https://www.bundesgesundheitsministerium.de/presse/pressemitteilungen/2020/2-quartal/covid-19-bevoelkerungsschutz-2.html>
- A new federal law was implemented on 28/03/2020 for the protection of the public in the event of epidemic situations, granting the federal government additional competencies for the control of epidemics: <https://www.bundesgesundheitsministerium.de/presse/pressemitteilungen/2020/1-quartal/corona-gesetzespaket-im-bundesrat.html> (in German)
- On 15/04/2020, the German government and the federal states agreed to gradually reduce physical distancing measures <https://www.bundesregierung.de/breg-de/themen/coronavirus/fahrplan-corona-pandemie-1744202> (in German)