



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

25/07/2020 - UPDATED STATUS FOR GERMANY

- ABBREVIATED WEEK-END EDITION -

| Confirmed cases | Deaths | Deaths (%) | Recovered |
|----------------------------|------------------------|-------------|----------------------|
| 204,964 (+ 781*) | 9,118 (+ 7*) | 4.5% | ca. 189,800** |

*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 25/07/2020 12:00 AM)

- A general increase in the daily reported cases could be observed during the last days. Yesterday's and today's values are around 800 and thereby higher than during previous weeks.
- The cumulative nationwide incidence over the past 7 days was 4.0 cases per 100,000 inhabitants and thus increased slightly at a low level. A total of 86 districts transmitted zero cases. Moreover, in 231 districts the 7-day-incidence is below 5,0/100,000 inhabitants.
- In total, 204,964 laboratory-confirmed COVID-19 cases and 9,118 deaths due to COVID-19 have been electronically reported to the RKI in Germany.
- Currently, COVID-19-related outbreaks occur in various settings, including meat-processing plants, facilities for asylum-seekers and refugees, nursing homes and hospitals as well as in context of families or religious events.

Epidemiological Situation in Germany

General current assessment

The number of newly reported cases on Saturday, July 25th 2020, amounts to **781** and thus remains higher than in the previous weeks. Recently, the numbers had been around 500 cases per day, at times significantly lower.

The increase can be observed in many federal states. However, more than 60% of the newly reported cases are due to increases in North Rhine-Westphalia, **Bavaria** and Baden-Wuerttemberg. Nationwide, there are many smaller incidents in different administrative districts, which are connected in different ways, e.g. larger celebrations in the family settings, leisure activities, jobs, but also in community and health facilities. In addition, COVID-19 cases are increasingly being identified among people returning from travels outside of Germany.

The number of new cases reported daily had already increased in recent days. This development is very concerning and will continue to be monitored very closely by the RKI. A further worsening of the situation must be avoided at all costs. This will only succeed if the entire population continues to be committed, e.g. by consistently observing rules of distance and hygiene - also in outdoor settings, airing indoor areas and, where necessary, wearing a community or face mask correctly.

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 **204,964 (+781)** 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 **86** 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 (25/07/2020, 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 | 36,819 | 88 | 333 | 406 | 3.7 | 1,841 | 16.6 |
| Bavaria | 50,260 | 148 | 384 | 494 | 3.8 | 2,619 | 20.0 |
| Berlin | 8,957 | 63 | 239 | 190 | 5.1 | 223 | 5.9 |
| Brandenburg | 3,524 | 1 | 140 | 46 | 1.8 | 168 | 6.7 |
| Bremen | 1,742 | 9 | 255 | 33 | 4.8 | 55 | 8.1 |
| Hamburg | 5,291 | 16 | 287 | 51 | 2.8 | 261 | 14.2 |
| Hesse | 11,649 | 58 | 186 | 270 | 4.3 | 518 | 8.3 |
| Mecklenburg-Western Pomerania | 843 | 17 | 52 | 36 | 2.2 | 20 | 1.2 |
| Lower Saxony | 14,222 | 37 | 178 | 255 | 3.2 | 648 | 8.1 |
| North Rhine-Westphalia | 47,257 | 301 | 264 | 1,306 | 7.3 | 1,728 | 9.6 |
| Rhineland-Palatinate | 7,409 | 12 | 181 | 106 | 2.6 | 238 | 5.8 |
| Saarland | 2,849 | 8 | 288 | 20 | 2.0 | 174 | 17.6 |
| Saxony | 5,512 | 6 | 135 | 25 | 0.6 | 225 | 5.5 |
| Saxony-Anhalt | 1,979 | 4 | 90 | 32 | 1.4 | 63 | 2.9 |
| Schleswig-Holstein | 3,311 | 12 | 114 | 59 | 2.0 | 155 | 5.4 |
| Thuringia | 3,340 | 1 | 156 | 19 | 0.9 | 182 | 8.5 |
| Total | 204,964 | 781 | 247 | 3,348 | 4.0 | 9,118 | 11.0 |

As part of quality checks and data cleaning by the health authorities and regional offices, corrections to cases previously transmitted (e.g. detection of duplicate reports) can occasionally lead to negative values for the number of new cases.

* The increase can be observed in many federal states. However, more than 60% of the newly reported cases are due to increases in North Rhine-Westphalia, Bavaria and Baden-Wuerttemberg.

Distribution of cases over time

The first COVID-19 cases in Germany were notified in January 2020. Figure 1 shows COVID-19 cases transmitted to RKI according to date of illness onset from 01/03/2020 onwards. Of these cases, the onset of symptoms is unknown in 62,841 cases (31%), thus their date of reporting is provided in Figure 1.

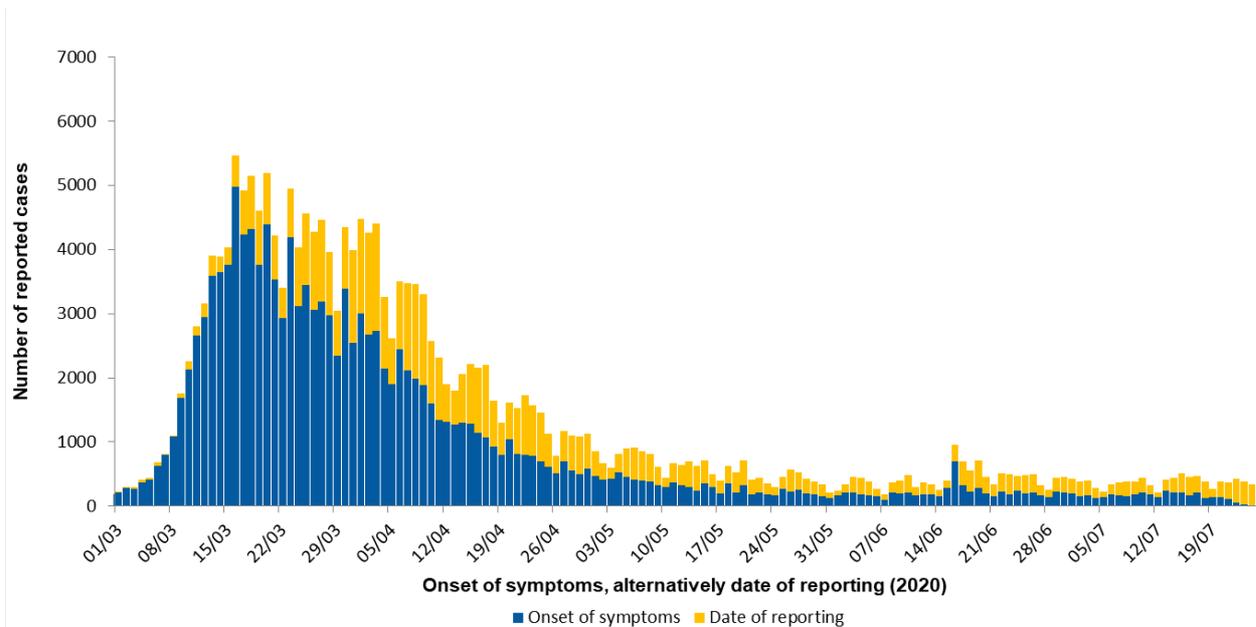


Figure 1: Number of Covid-19 cases in Germany electronically reported to the RKI by the date of symptoms onset or –if unknown- alternatively by date of reporting from 01/03/2020 (25/07/2020, 12:00 AM).

Clinical aspects

Approximately **189,800** 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.

In total, **9,118** COVID-19-related deaths have been reported in Germany (4.5% of all confirmed cases). 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 2: Number of notified COVID-19 deaths by age group and gender electronically reported to RKI (Data available for 9,113 of notified deaths; 25/07/2020, 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 | 6 | 17 | 56 | 240 | 647 | 1,382 | 2,114 | 570 | 6 |
| Female | 1 | | 3 | 6 | 22 | 86 | 233 | 670 | 1,917 | 1,091 | 44 |
| Total | 1 | 2 | 9 | 23 | 78 | 326 | 880 | 2,052 | 4,031 | 1,661 | 50 |

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 (203,771* cases, no data available for 50,717 cases; 25/07/2020, 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 | 3,555 | 2,555 | 652 | 2,800 |
| | Occupation in facility | 14,273 | 651 | 22 | 14,100 |
| § 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* | 3,915 | 82 | 1 | 3,600 |
| | Occupation in facility | 2,886 | 153 | 7 | 2,800 |
| § 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 | 18,455 | 4,163 | 3,611 | 14,600 |
| | Occupation in facility | 10,155 | 425 | 40 | 10,000 |
| § 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 | 4,984 | 212 | 5 | 4,700 |
| Neither cared for, accommodated in nor working in a facility | | 94,831 | 16,478 | 3,492 | 88,800 |

*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 medical and other care facilities according to §23 and §36 IfSG (Table 3). The number of deaths was particularly high among persons cared for in these facilities. Among the cases reported as working in medical facilities, 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 (Section 36 IfSG) is consistent with numerous reported outbreaks, especially in nursing homes. 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 increase in the number of cases among persons working in the food sector (§42) 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 the district of Vechta (Lower Saxony). An accumulation of COVID-19 cases was detected as a result of screening of >1,000 employees of a meat processing company. Neighbouring districts are also affected.

Further COVID-19 outbreaks continue to be reported in nursing homes and hospitals, refugee facilities, family events, child-day care 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 2 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.

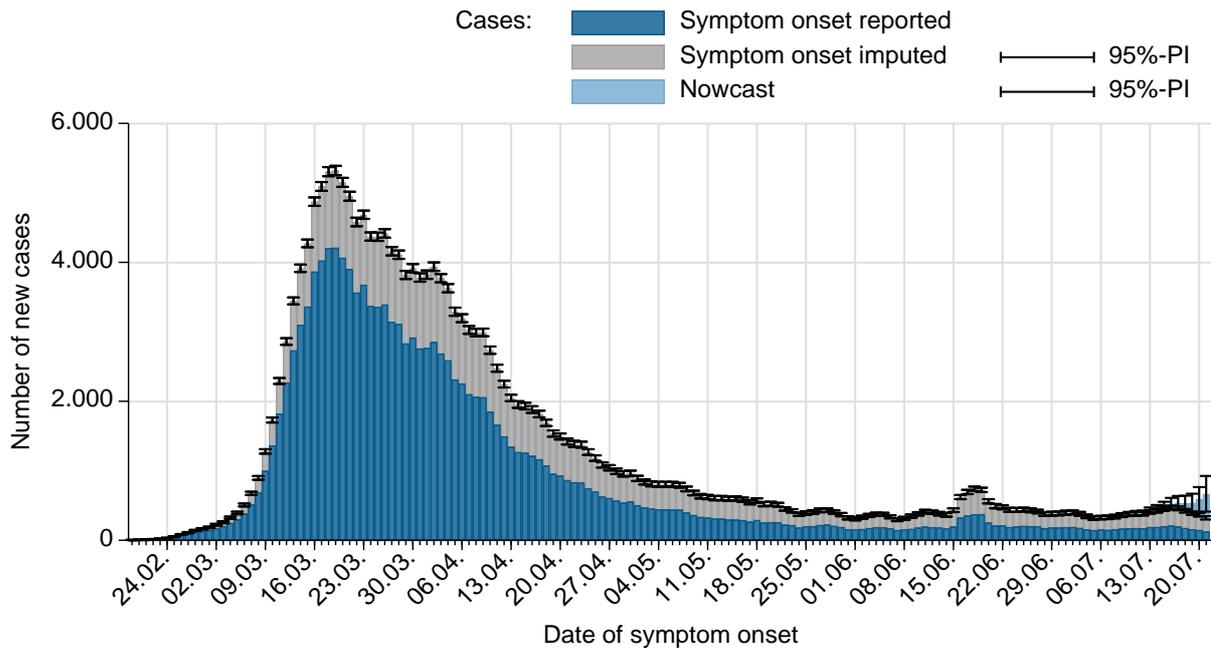


Figure 2: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 25/07/2020, 12 AM, taking into account cases up to 21/07/2020).

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 **1.24** (95%-prediction interval: **0.98 – 1.54**) and is based on electronically notified cases as of 25/07/2020, 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 **1.25** (95% prediction interval: **1.10 – 1.43**) and is based on electronically notified cases as of 25/07/2020, 12:00 AM.

The reported 7-day R value has been at 1 or slightly above since mid-July 2020. This is due to a larger number of small outbreaks, but also case numbers in Germany overall, which have risen slightly since the relaxation of the measures.

See also the RKI's statement on high case numbers of 24/07/2020

https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Gestiegene_Fallzahlen.html

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)

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, including compliance with physical distancing, hygiene measures and community masks.

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

- 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)*