



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

19/06/2020 - UPDATED STATUS FOR GERMANY

| Confirmed cases | Deaths | Deaths (%) | Recovered |
|----------------------------|-------------------------|-------------|----------------------|
| 188,534 (+ 770*) | 8,872 (+ 16*) | 4.7% | ca. 174,400** |

*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 19/06/2020 12:00 AM)

- The cumulative nationwide incidence over the past 7 days was **3.2** cases per 100,000 inhabitants. A total of **135** districts transmitted zero cases.
- In total, **188,534** laboratory-confirmed COVID-19 cases and **8,872** deaths due to COVID-19 have been electronically reported to the RKI in Germany.
- 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 meat processing plants and logistics companies, among seasonal harvest workers and in connection with religious events and family gatherings).

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 **188,534 (+770)** 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 **135** 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 (19/06/2020, 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 | 35,236 | 18 | 318 | 135 | 1.2 | 1,821 | 16.5 |
| Bavaria | 47,799 | 52 | 366 | 215 | 1.6 | 2,562 | 19.6 |
| Berlin | 7,603 | 128 | 203 | 370 | 9.9 | 211 | 5.6 |
| Brandenburg | 3,374 | 9 | 134 | 44 | 1.8 | 163 | 6.5 |
| Bremen | 1,626 | 7 | 238 | 53 | 7.8 | 49 | 7.2 |
| Hamburg | 5,156 | 2 | 280 | 17 | 0.9 | 259 | 14.1 |
| Hesse | 10,503 | 63 | 168 | 188 | 3.0 | 499 | 8.0 |
| Mecklenburg-Western Pomerania | 791 | 4 | 49 | 11 | 0.7 | 20 | 1.2 |
| Lower Saxony | 13,097 | 34 | 164 | 277 | 3.5 | 618 | 7.7 |
| North Rhine-Westphalia | 40,156 | 379 | 224 | 1,069 | 6.0 | 1,660 | 9.3 |
| Rhineland-Palatinate | 6,883 | 9 | 169 | 53 | 1.3 | 234 | 5.7 |
| Saarland | 2,774 | 1 | 280 | 8 | 0.8 | 168 | 17.0 |
| Saxony | 5,382 | 23 | 132 | 39 | 1.0 | 221 | 5.4 |
| Saxony-Anhalt | 1,818 | 16 | 82 | 84 | 3.8 | 57 | 2.6 |
| Schleswig-Holstein | 3,131 | 9 | 108 | 13 | 0.4 | 152 | 5.2 |
| Thuringia | 3,205 | 16 | 150 | 49 | 2.3 | 178 | 8.3 |
| Total | 188,534 | 770* | 227 | 2,625 | 3.2 | 8,872 | 10.7 |

*Outbreaks in Northrhine-Westphalia, Hesse and Berlin are primarily responsible for the increasing case numbers when compared to the numbers of the previous day.

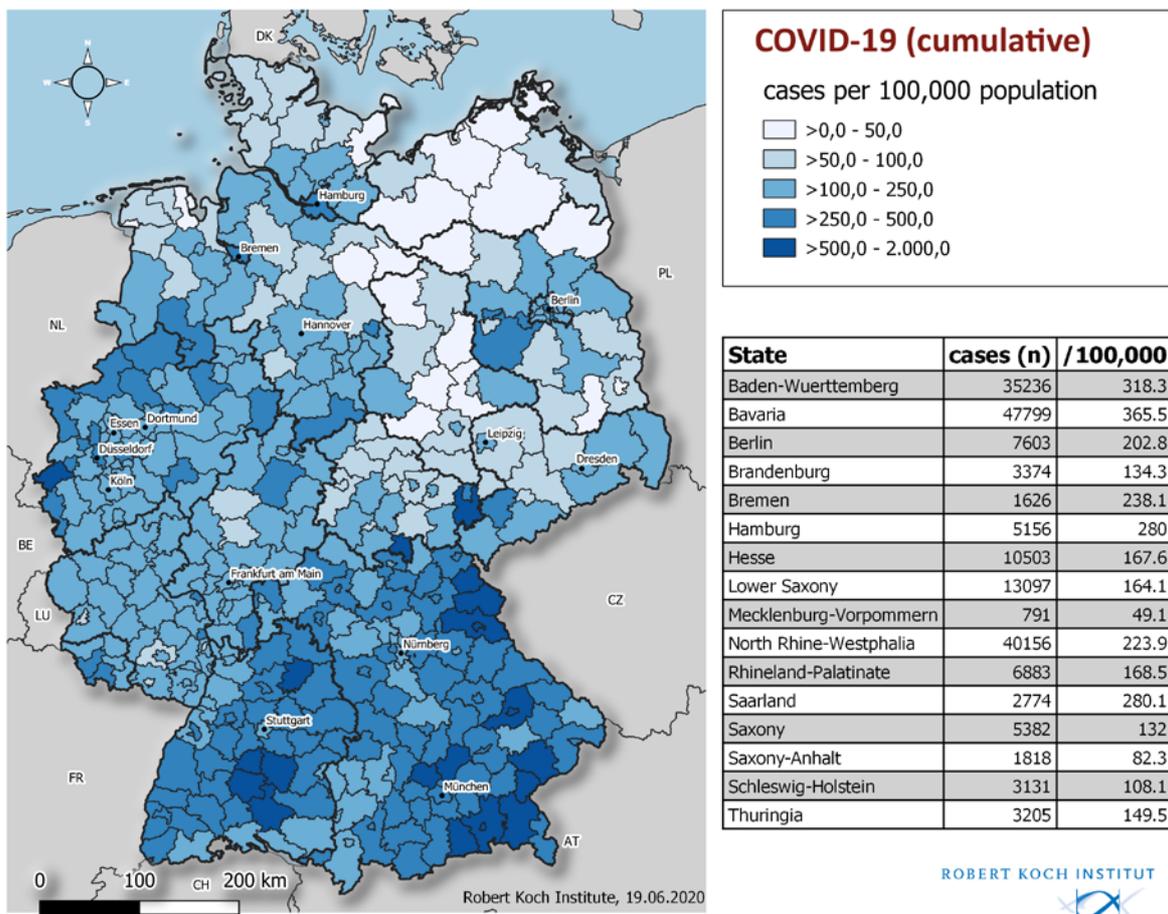


Figure 1: Number and cumulative incidence (per 100,000 population) of the 188,534 electronically reported COVID-19 cases in Germany by county and federal state (19/06/2020, 12:00 AM). Please see the COVID-19 dashboard (<https://corona.rki.de/>) for information on number of COVID-19 cases by county (local 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 55,793 cases (30%). When the the onset of symptoms is unknown, the date of reporting is provided in Figure 2.

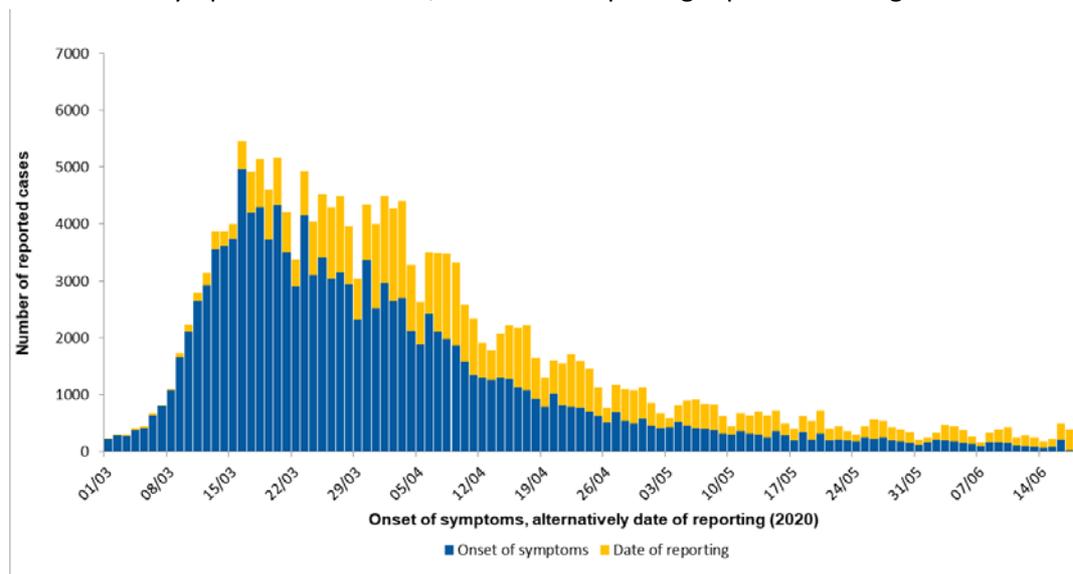


Figure 2: Number of COVID-19 cases in Germany electronically reported to the RKI by date of symptom onset or alternatively by date of reporting from 01/03/2020 (19/06/2020, 12:00 AM).

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, 4,329 were children under 10 years of age (2.3%), 8,820 children and teenagers aged 10 to 19 years (4.7%), 82,125 persons aged 20 to 49 years (43%), 58,021 persons aged 50 to 69 years (31%), 29,825 persons aged 70 to 89 years (16%) and 5,315 persons aged 90 years and older (2.8%). The age is unknown in 99 notified cases. The mean age of cases is 49 years (median age 49 years). The highest incidences are seen in persons aged 90 years and older (Figure 3).

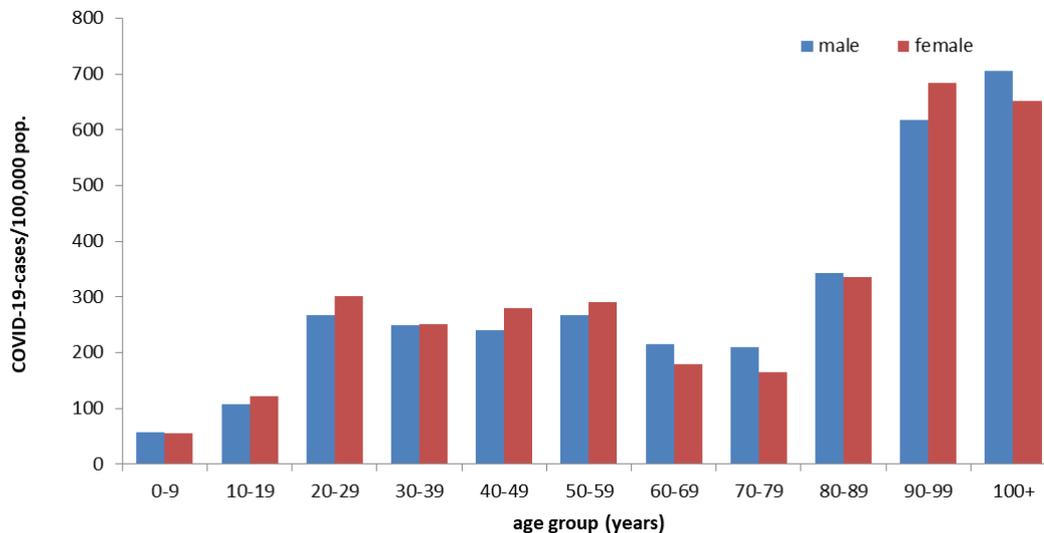


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and gender (n=188,126) for cases with information available (19/06/2020,12:00 AM).

Clinical aspects

Information on symptoms is available for 161,716 (86%) of the notified cases. Common symptoms are cough (49%), fever (41%) and rhinorrhoea (21%). Pneumonia was reported in 4,907 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 2,816 of 19,189 cases (15%).

Hospitalisation was reported for 28,691 (18%) of 163,249 COVID-19 cases with information on hospitalisation status.

Approximately 174,400 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 8,867 of notified deaths; 19/06/2020, 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 | 49 | 228 | 622 | 1,341 | 2,081 | 556 | 6 |
| Female | 1 | | 3 | 6 | 20 | 82 | 221 | 655 | 1,865 | 1,061 | 45 |
| Total | 1 | 2 | 9 | 23 | 69 | 310 | 843 | 1,996 | 3,946 | 1,617 | 51 |

In total, 8,872 COVID-19-related deaths have been reported in Germany (4.7% of all confirmed cases). Of these, 4,908 (55%) are men and 3,959 (45%) are women (see Table 2), the gender was unknown in five cases). The median age was 82 years. Of all deaths, 7,613 (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.

Occupation, accommodation or care in facilities

In accordance with the Protection Against Infection Law, 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 26% 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.

So far, **13,628** 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 (§42) is largely due to outbreaks in meat processing plants.

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 (187,509* cases, no data available for 48,471 cases; 19/06/2020, 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 | 3,231 | 2,314 | 612 | 2,500 |
| | Occupation in facility | 13,628 | 632 | 20 | 13,600 |
| § 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* | 2,775 | 62 | 1 | 2,500 |
| | Occupation in facility | 2,648 | 134 | 8 | 2,600 |
| § 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 | 17,462 | 3,995 | 3.480 | 13,500 |
| | Occupation in facility | 9,751 | 416 | 46 | 9,600 |
| § 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 | 3,014 | 175 | 4 | 2,500 |
| Neither cared for, accommodated in nor working in a facility | | 86,529 | 15,490 | 3.377 | 81,400 |

*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

A high 7-day incidence was observed in three districts, primarily due to localised outbreaks: The districts of, Guetersloh (North-Rhine-Westphalia), Verden (Lower Saxony) and Magdeburg (Saxony-Anhalt), [Neukölln \(Berlin\)](#) and [Warendorf \(North Rhine-Westphalia\)](#).

A local COVID-19 outbreak among harvest workers in the district of Aichach-Friedberg had led to a sharp increase in the 7-day incidence. The applied measures (isolation, hygiene as well as identification and testing of contact persons), which were initiated immediately, as well as the early termination of the seasonal harvest work, have led to a containment of the outbreak. The 7-day incidence has fallen considerably.

The increase in the 7-day incidence in the district Guetersloh is due to an outbreak in a meat processing plant. Several hundred employees tested positive for SARS-CoV-2. Contact tracing is ensured at the present time. The affected plant was temporarily closed at short notice and all employees are being quarantined. In addition, all schools and day-care centres in the district will be closed from 18.06. until the end of the summer holidays (11.08.2020).

[The outbreak in Guetersloh is linked to an outbreak in Warendorf LK. Employees of the meat processing company are residents of neighbouring districts.](#)

In Magdeburg, an outbreak affecting several now closed schools has led to an increase in the 7-day incidence.

[In Neukölln, a district of Berlin, an outbreak is linked to members of a religious community. So far 85 cases are linked to this outbreak.](#)

Once again there were major outbreaks in retirement- and nursing homes. In the district of Verden residents and nursing staff have been tested positive for SARS-CoV-2.

Further outbreaks were reported among members of religious communities, eg. from Berlin, Hesse and and Mecklenburg-Western Pomerania.

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.

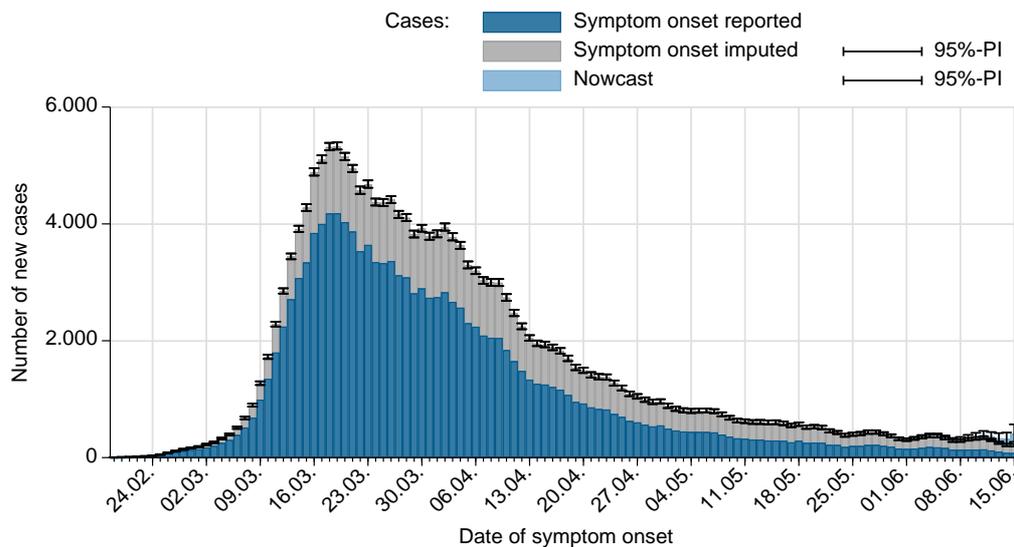


Figure 4: Number of notified COVID-19 cases with known date of illness onset (dark blue), estimated date of illness onset for cases without reported date of onset (grey) and estimated number of not yet notified cases according to illness onset electronically reported to RKI (light blue) (as of 19/06/2020, 12 AM, taking into account cases up to 15/06/2020).

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.

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 **1.06** (95%-prediction interval: **0.87 – 1.30**) and is based on electronically notified cases as of 19/06/2020, 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 **1.17** (95%-prediction interval: **1.02– 1.34**) and is based on electronically notified cases as of 19/06/2020, 12:00 AM. In light of the still low daily case numbers, both R -values should be interpreted with caution and in their course over several days.

Estimates of the reproduction numbers (R -value and 7-day R -value) are slightly above 1, indicating that at the moment the number of new cases is not further declining. This is mainly related to local outbreaks which are described above. Since case numbers in Germany are generally low, these outbreaks have a relatively strong influence on the value of the reproduction number. A general increase of case numbers in Germany is not expected.

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 19/06/2020, a total of 1,270 hospitals or departments reported to the DIVI registry. Overall, 30,759 intensive care beds were registered, of which 20,239 (66%) are occupied, and 10,520 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 (19/06/2020, 12:15 AM).

| | Number of patients | Percentage | Change to previous day* |
|-------------------------------------|--------------------|------------|-------------------------|
| Currently in ICU | 376 | | -20 |
| - of these: mechanically ventilated | 227 | 60% | -13 |
| Discharged from ICU | 14,383 | | -48 |
| - of these: deaths | 3,653 | 25% | -6 |

*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.

Mortality monitoring

A total of 24 European countries provide the European EuroMOMO project (European monitoring of excess mortality for public health action) with official mortality statistics on a weekly basis which allows the detection and measuring of excess deaths related to e.g. seasonal influenza and pandemics (<https://www.euromomo.eu/>). In Germany, two regional systems that allow the transmission of data, have been established so far (since 2007 in Berlin and Hesse). The establishment of a nationwide monitoring system is planned from 2021 onwards.

All-cause mortality for the countries in the EuroMOMO network are approaching normal levels, following a period of a substantial excess mortality coinciding with the COVID-19 pandemic. A few countries are still seeing some excess mortality. Excess mortality was observed primarily in the age group of over-65s, but also in the age group of 15-64s.

Weekly mortality statistics are also recorded on the website of the Federal Statistical Office, albeit with a certain time lag (currently 24/05/2020)

https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/06/PD20_203_12621.html?nn=209016. A special evaluation on excess mortality is updated every two weeks:

<https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Sterbefaelle-Lebenserwartung/Tabellen/sonderauswertung-sterbefaelle.html> (in German). Looking at the development by months, in March 2020 there is no noticeable increase in the number of deaths compared to March of the previous year. In April, however, the mortality figures were significantly above the average of previous years; since the beginning of May, the mortality figures have been back to around the average.

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

- 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
- From 15 June, borders will open within Europe, making travel possible again – provided the COVID-19 activity in destination countries permits this (12/06/2020) <https://www.auswaertiges-amt.de/de/ReiseUndSicherheit/covid-19/2296762>
- 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)