



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

17/04/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered
133,830 (+ 3,380*)	3,868 (+ 299*)	2.9%	ca. 81,800**

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

*Change from previous day; **Estimate

Summary (as of 17/04/2020, 12:00 AM)

- In total, **133,830** COVID-19 cases and **3,868** deaths due to COVID-19 have been electronically reported to the Robert Koch Institute in Germany.
- All 16 federal states are affected. The incidence (cases per 100,000) of COVID-19 is highest in Bavaria (**276**), Baden-Wuerttemberg (**240**), Saarland (**228**) and Hamburg (**218**).
- Most cases (68%) are between 15 and 59 years old; men (48%) and women (52%) are almost equally affected.
- **87%** of deaths, but only 18% of all cases, occurred in persons aged 70 years or older.
- COVID-19 related outbreaks in nursing homes and hospitals continue to be reported. In some of these outbreaks, the number of deaths is relatively high.
- As of 10/04/2020, the RKI no longer classifies countries or regions as international risk areas.

Epidemiological Situation in Germany

Geographical distribution of cases

Epidemiological analyses are based on validated cases notified electronically to RKI according to the Protection Against Infection Law (Data closure: 12:00 AM daily).

Since January 2020, a total of **133,830 (+3,380)** laboratory-confirmed cases of coronavirus disease 2019 (COVID-19) have been electronically reported to and validated at the RKI, including **3,868** deaths (see Table 1 and Figure 1). Information on confirmed cases are 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 notified laboratory-confirmed COVID-19 cases and deaths per federal state, Germany (17/04/2020, 12:00 AM).

Federal State	Total Number of cases	Number of new cases	Cases/100,000 pop.	Number of deaths
Baden-Wuerttemberg	26.543	662	240	872
Bavaria	36.027	885	276	1.137
Berlin	4.945	97	132	84
Brandenburg	2.120	62	84	60
Bremen	556	49	81	22
Hamburg	4.005	52	218	84
Hesse	6.705	235	107	197
Mecklenburg-Western Pomerania	634	0	39	13
Lower Saxony	8.442	254	106	274
North Rhine-Westphalia	27.030	647	151	726
Rhineland-Palatinate	5.211	124	128	92
Saarland	2.254	53	228	76
Saxony	4.048	93	99	95
Saxony-Anhalt	1.279	31	58	28
Schleswig-Holstein	2.349	55	81	59
Thuringia	1.682	81	78	49
Total	133.830	3.380	161	3.868

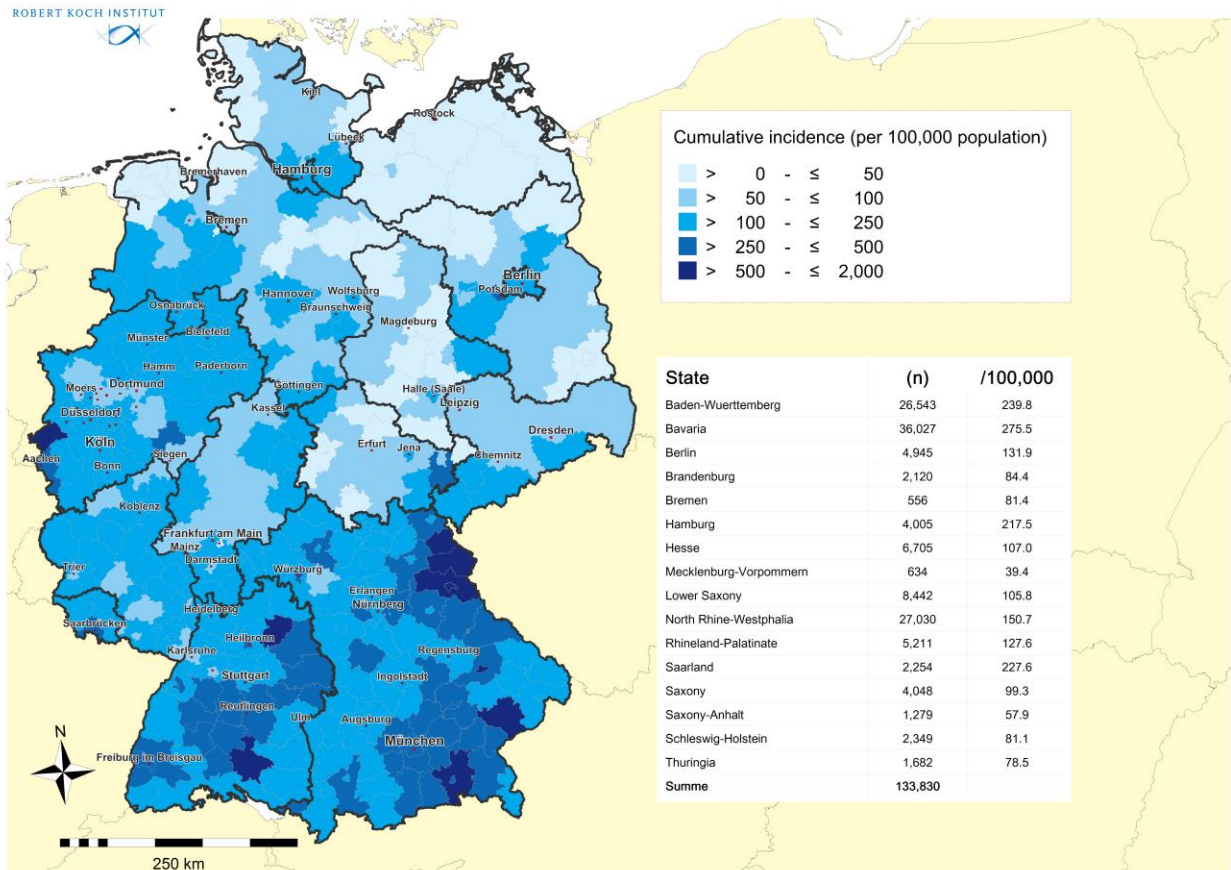


Figure 1: Number and cumulative incidence (per 100,000 population) of the 133,830 electronically reported COVID-19 cases in Germany by county and federal state (17/04/2020, 12:00 AM). Please see the COVID-19 dashboard (<https://corona.rki.de/>) for information on number of COVID-19 cases by county (local health authority).

Distribution of cases over time

COVID-19 cases were first notified in Germany in January 2020. In 48,420 cases, onset of symptoms is unknown and therefore date of reporting is shown (see Figure 2).

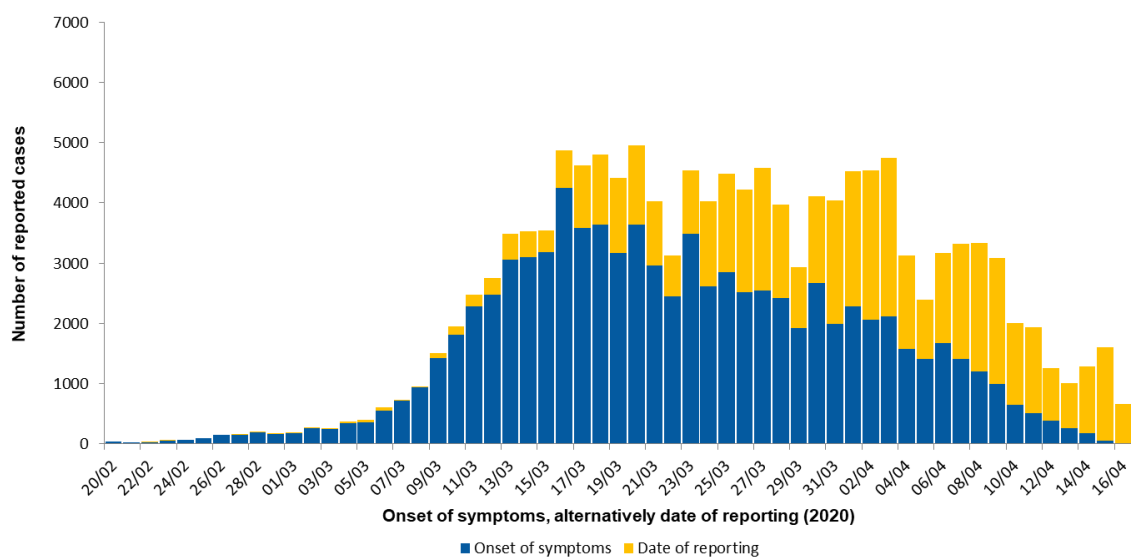


Figure 2: Number of electronically reported COVID-19 cases in Germany by date of symptom onset and alternatively by date of reporting from 20/02/2020 (17/04/2020, 12:00 AM)

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

Demographic distribution of cases

Of reported cases, 48% are male and 52% are female. Among notified cases, 1,071 were children under 5 years of age (1%), 2,638 children aged 5 to 14 years (2%), 90,422 persons aged 15 to 59 years (68%), 25,797 persons aged 60 to 79 years (19%) and 13,671 persons aged 80 years and older (10%) (see Figure 3). The age of 231 notified cases is unknown. The median age of cases is 50 years.

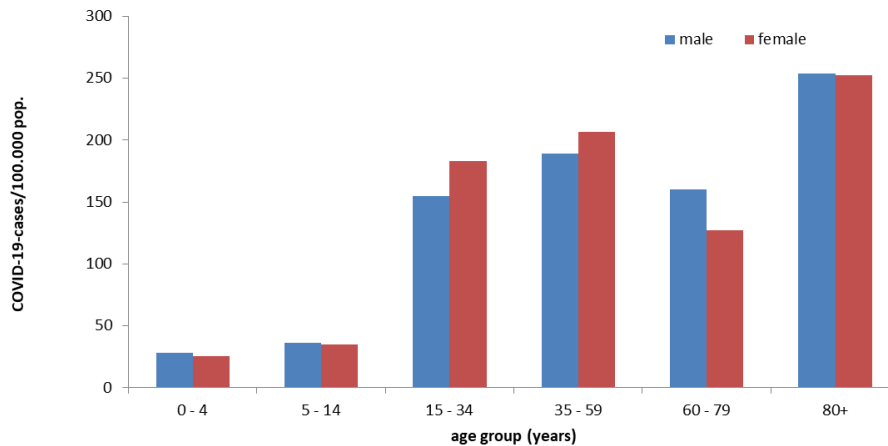


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and sex (n=133,163) for cases with information available (17/04/2020, 12:00 AM).

Clinical aspects

Information on symptoms is available for 104,719 of the notified cases. The most common symptoms are cough (51%), fever (42%) and rhinorrhoea (21%). Pneumonia was reported in 2,642 cases (3%). Hospitalisation was reported for 16,963 (16%) of 104,391 COVID-19 cases with information on hospitalisation available.

Approximately 81,800 persons have recovered from their COVID-19 infection. As the exact date of recovery is unknown in most cases, an algorithm was developed to estimate the number of recovered cases.

The 3,868 COVID-19 related deaths reported in Germany concerned 2,234 (58%) men and 1,630 (42%) women (sex was unknown in 4 cases, age was unknown in 1 case). The median age was 82 years. Of all deaths, 3,347 (87%) were in persons 70 years or older, but only 18% of all cases were in this age group. COVID-19 related outbreaks continue to be reported in nursing homes and hospitals. In some of these outbreaks, the number of deaths is relatively high.

Table 2: Number of notified COVID-19 deaths by age group and sex
(Data available for 3,863 of the 3,868 notified deaths; 17/04/2020, 12:00 AM)

Sex	Age groups (years)				
	<60	60 - 69	70 - 79	80 - 89	≥90
male	129	262	614	969	260
female	41	87	283	805	413

SARS-CoV-2 infections among staff working in medical facilities

So far, 6,711 cases with a SARS-CoV-2 infection have been notified among staff working in medical facilities as defined by §23 of the German Protection Against Infection law (IfSG), such as hospitals, outpatient clinics and practices, dialysis clinics or outpatient nursing services. The proportion of cases reported as working in medical facilities among all cases increased over time from at least 3% in Week 12, 5% in Week 13, 5% in Week 14 to 6% in Week 15, 2020. Due to missing data on occupation over 40% of cases, the true proportion of cases working in medical facilities may be higher. Among the cases reportedly working in medical facilities, 72% were female and 28% male. The median age was 42 years. Hospitalisation was reported for 272 (4%) of 6,265 cases among staff working in medical facilities with information available. There were 9 COVID-19 related deaths among staff working in medical facilities. The proportion of persons with COVID-19 reported as working in medical facilities who actually acquired their infection in the health care setting is unknown.

Estimation of the reproduction number (R)

The reproduction number, R, is the mean number of persons infected by a case. R can only be estimated and not directly extracted from the notification system. The current estimate is $R = 0.7$ (95% confidence interval: 0.6-0.8) and is based on current electronically notified cases (17/04/2020, 12:00 A.M.) and an assumed mean generation time of 4 days. Cases with disease onset on the preceding 3 days were excluded from the estimation as their low number due to incomplete reporting would lead to an unstable estimate. For more details on the methodology see Epid. Bull. 17 | 2020 (in German) https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/17/Art_02.html

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 the capacities for intensive care as well as the number of COVID-19 cases treated in participating hospitals. The DIVI intensive care register documents the number of available intensive care beds in the reporting hospital on a daily basis. Since 16/04/2020, reporting is compulsory for all hospital sites with intensive care beds.

As of 17/04/2020, 1,138 hospitals or departments reported to DIVI to the registry. A total of 29,011 intensive care beds were registered, of which 17,110 (59%) are occupied and 11,901 beds are currently available (Table 3).

	Number of patients	Percentage	Change to previous day
Currently in ICU	2,868		+95
- of these: mechanically ventilated	2,145	75%	+62
Discharged from ICU	6,030		+1,169
- of these: deaths	1,806	31%	+305

Table 3: COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (17/04/2020, 8:15 am). Migration of the registry to a new server led to temporary reporting delays, thus comparisons with data prior to 03/04/2020 are not meaningful. Source: <https://www.intensivregister.de/#/intensivregister>

Assessment by the RKI

At the global and the national level, the situation is very dynamic and must be taken seriously. Severe and fatal courses occur in some cases. The number of cases, hospitalisations and fatalities in Germany continues to increase. The RKI currently assesses the risk to the health of the German population overall as **high** and as **very high** for risk groups. The probability of serious disease progression increases with increasing age and underlying illnesses. The risk of disease varies from region to region. The burden on the health care system depends on the geographical and age distribution of cases, health care capacity and initiation of containment measures (isolation, quarantine, social distancing etc.), and may be very high in some geographical regions. This assessment may change on short notice as a result of new findings.

Measures taken by Germany

International risk areas

As of 10/04/2020 countries and regions are not longer classified as international risk areas. Due to pandemic spread, there is a global risk of acquiring COVID-19. Outbreaks are ongoing in a considerable number of countries, often with high numbers of cases; in other countries, the exact numbers of cases is unknown. Therefore there is a risk of transmission in Germany as well as in many other, not always well-defined regions worldwide.

All arriving travellers in Germany are to remain in quarantine for 14 days:

<https://www.bundesregierung.de/breg-de/themen/coronavirus/neue-einreiseregeln-1739634> (in German)

Other measures

- Outbreaks are ongoing in many districts, some with high case numbers. Data on current disease activity can be found on the dashboard <https://corona.rki.de/> and in the daily situation reports.
- 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 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)
- As of 23/03/2020, gatherings of more than 2 persons (with the exception of families and household members) are banned in all federal states. Restaurants and businesses concerned with body care were closed. In public spaces, all persons must maintain a distance of 1.5 metres to other individuals <https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248> (in German)
- On April 15, 2020, the German government and the federal states agreed to gradually reduce social distancing measures <https://www.bundesregierung.de/breg-de/themen/coronavirus/fahrplan-corona-pandemie-1744202> (in German)