

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

19/04/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered	
139.897	4,294	3.10%	ca. 88,000**	
(+ 2,458*)	(+ 184*)			

⁻ Changes since the last report are marked blue in the text -

*Change from previous day; **Estimate

Summary (as of 19/04/2020, 12:00 AM)

- In total, 139,897 COVID-19 cases and 4,294 deaths due to COVID-19 have been electronically reported to the Robert Koch Institute in Germany.
- The incidence (cases per 100,000) of COVID-19 is highest in Bavaria (286), Baden-Wuerttemberg (252), Saarland (233) and Hamburg (226).
- Most cases (68%) are between 15 and 59 years old; men (48%) and women (52%) are almost equally affected.
- 86% 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 139,897 (+2,458) laboratory-confirmed cases of coronavirus disease 2019 (COVID-19) have been electronically reported to and validated at the RKI, including 4,294 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 (19/04/2020, 12:00 AM).

Federal State	Total Number of cases	Number of new cases	Cases/100,000 pop.	Number of deaths
Baden-Wuerttemberg	27,883	625	252	968
Bavaria	37,407	526	286	1,256
Berlin	5,159	93	138	92
Brandenburg	2,221	60	88	66
Bremen	585	18	86	25
Hamburg	4,167	49	226	91
Hesse	7,108	192	113	230
Mecklenburg-Western Pomerania	651	6	40	15
Lower Saxony	8,797	148	110	288
North Rhine-Westphalia	28,471	465	159	814
Rhineland-Palatinate	5,432	108	133	106
Saarland	2,303	14	233	91
Saxony	4,190	50	103	107
Saxony-Anhalt	1,350	35	61	30
Schleswig-Holstein	2,417	30	83	62
Thuringia	1,756	39	82	53
Total	139,897	2,458	168	4,294

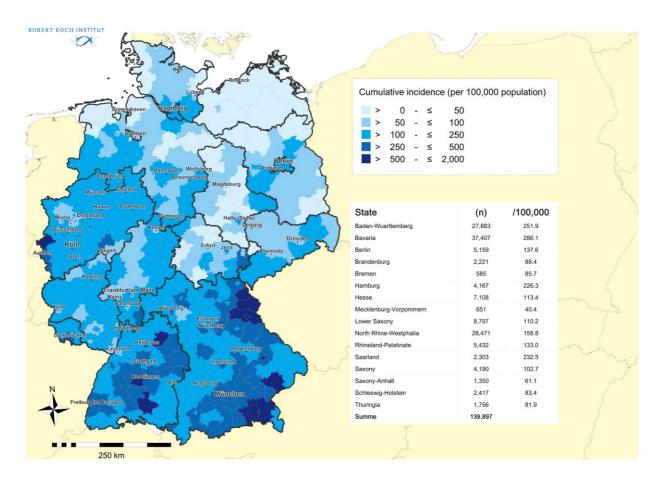


Figure 1: Number and cumulative incidence (per 100,000 population) of the 139,897 electronically reported COVID-19 cases in Germany by county and federal state (19/04/2020, 12:00 AM). Please see the COVID-19 dashboard (https://corona.rki.de/) for information on number of COVID-19 cases by county (local health authority).

Distribution of cases over time

COVID-19 cases were first notified in Germany in January 2020. In 50,361 cases, onset of symptoms is unknown and therefore date of reporting is shown (see Figure 2).

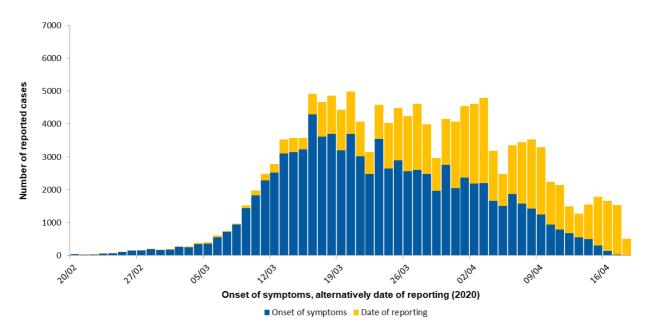


Figure 2: Number of electronically reported COVID-19 cases in Germany by date of symptom onset and alternatively by date of reporting from 20/02/2020 (19/04/2020, 12:00 AM)

Demographic distribution of cases

Of reported cases, 48% are male and 52% are female. Among notified cases, 1,115 were children under 5 years of age (1%), 2,779 children aged 5 to 14 years (2%), 94,339 persons aged 15 to 59 years (68%), 26,917 persons aged 60 to 79 years (19%) and 14,548 persons aged 80 years and older (10%) (see Figure 3). The age of 199 notified cases is unknown. The median age of cases is 50 years.

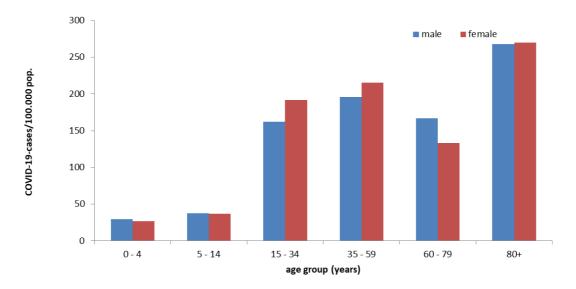


Figure 3: Electronically reported COVID-19 cases/100,000 population in Germany by age group and sex (n=139,248) for cases with information available (19/04/2020, 12:00 AM).

Clinical aspects

Information on symptoms is available for 109,744 of the notified cases. Common symptoms are cough (51%), fever (42%) and rhinorrhoea (21%). Pneumonia was reported in 2,835 cases (3%). Hospitalisation was reported for 18,051 (17%) of 109,320 COVID-19 cases with information on hospitalisation available.

Approximately 88,000 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 4,294 COVID-19 related deaths reported in Germany concerned 2,486 (58%) men and 1,805 (42%) women (sex was unknown in 3 cases). The median age was 82 years. Of all deaths, 3,708 (86%) 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 4,291 of the 4,294 notified deaths; 19/04/2020, 12:00 AM)

		Age groups (years)			
Sex	<60	60 - 69	70 - 79	80 - 89	≥90
male	148	289	693	1.060	296
female	47	101	306	888	463
total	195	390	999	1.948	759

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

So far, 7,293 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. Among the cases reportedly working in medical facilities, 72% were female and 28% male. The median age was 42 years. Hospitalisation was reported for 298 of 6,823 cases among staff working in medical facilities with information available (4%). There were 12 COVID-19 related deaths among staff working in medical facilities.

The proportion of cases reported as working in medical facilities among all cases increased over time from at least 4% in Week 12, 5% in Week 13, 5% in Week 14, 7% in Week 15 and in Week 16, 2020. Due to missing data on occupation over 40% of cases, the true proportion of cases working in medical facilities may be higher. 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= 0.8 (95% confidence interval: 0.7-1.0) and is based on current electronically notified cases (18/04/2020, 12:00 A.M.) and an assumed mean generation time of 4 days. An update for today (19.04.2020) was not possible due to technical changes. 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 hospitals on a daily basis. Since 16/04/2020, reporting is compulsory for all hospital sites with intensive care beds.

As of 19/04/2020, a total of 1,174 hospitals or departments reported to DIVI to the registry. Overall, 30,058 intensive care beds were registered, of which 17,393 (58%) are occupied and 12,665 beds are currently available. The number of COVID-19 cases treated in participating hospitals are shown in Table 3.

Table 3: COVID-19 patients requiring intensive care (ICU) recorded in the DIVI register (19/04/2020, 9:15 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

	Number of patients	Percentage	Change to previous day
Currently in ICU	2,889		-33
- of these: mechanically ventilated	2,113	73%	-67
Discharged from ICU	6,619		+254
- of these: deaths	1,979	30%	+50

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

- 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.
- 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 indivduals https://www.bundesregierung.de/breg-de/themen/coronavirus/besprechung-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248 (in German)
- 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 social distancing measures https://www.bundesregierung.de/breg-de/themen/coronavirus/fahrplancorona-pandemie-1744202 (in German)