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

02/04/2020 - UPDATED STATUS FOR GERMANY

Confirmed cases	Deaths	Deaths (%)	Recovered
73,522	872	1.2	approx. 21,400**
(+6,156*)	(+140*)		

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

*Change from previous day; **Estimation

Summary (as of 02/04/2020, 12:00 AM)

- In total, 73,522 COVID-19 cases and 872 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 (141), Baden-Württemberg (133) and Hamburg (131).
- Most cases (74%) are between 15 and 59 years old; men (52%) are more often affected than women (48%).
- 86% of deaths occurred in persons aged 70 years or older.
- As of March 23/2020, gatherings of more than 2 persons (with the exception of families and household members) were banned in all states. Restaurants and businesses concerned with body care were closed.
- A new law was implemented on 28/03/2020 for the protection of the public in the event of epidemic emergencies of national concern, endorsing the federal government with additional competencies for epidemic response.

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 27/01/2020, a total of 73,522 (+6.156) laboratory-confirmed cases of coronavirus disease 2019 (COVID-19) have been electronically reported to and validated at the RKI, including 872 deaths (see Table 1 and Figure 1). In addition, diagnosis is ongoing for suspected cases in several federal states. 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 (02/04/2020, 12:00 AM)

	Electronically notified cases			
Federal State	Total Number	Number of	Cases/100,000	Number o
	of cases	new cases	pop.	death
Baden-Wuerttemberg	14,662	1,252	132	24
Bavaria	18,496	1,999	141	26
Berlin	2,970	216	79	1
Brandenburg	995	114	40	
Bremen	327	16	48	
Hamburg	2,406	95	131	1
Hesse	3,707	262	59	2
Mecklenburg-Western Pomerania	438	32	27	
Lower Saxony	4,695	313	59	4
North Rhine-Westphalia	15,427	1,076	86	16
Rhineland-Palatinate	3,132	233	77	2
Saarland	1,020	191	103	1
Saxony	2,183	149	54	1
Saxony-Anhalt	804	54	36	
Schleswig-Holstein	1,335	89	46	1
Thuringia	925	65	43	
Total	73,522	6,156	88	87

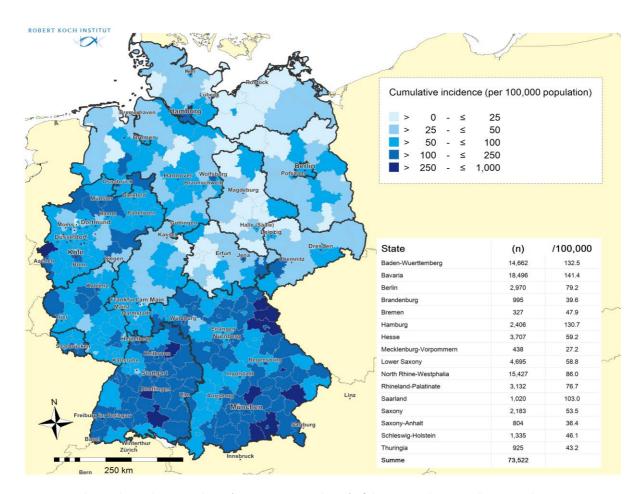


Figure 1: Number and cumulative incidence (per 100,000 population) of the 73,522 electronically reported COVID-19-cases in Germany by county and federal state (02/04/2020, 12:00 AM).

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

First COVID-19-cases were notified in Germany in January 2020. In 29,594 cases, onset of symptoms is unknown and therefore date of reporting is shown (see Figure 2).

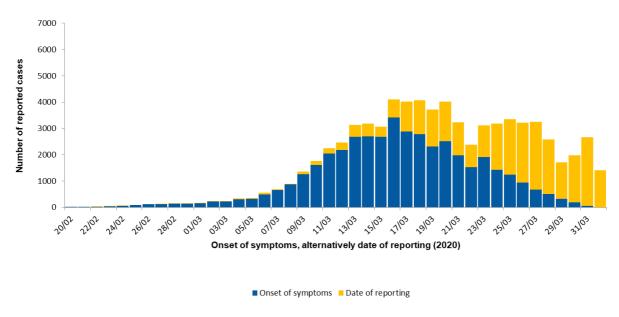


Figure 2: Number of electronically reported COVID-19-cases in Germany by date of symptom onset and alternatively by date of reporting from 20/02/2020, (02/04/2020, 12:00 AM)

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

Demographic distribution of cases

Of reported cases, 52% are male and 48% are female. Among notified cases, there are 551 children under 5 years of age, 1,431 children aged 5 to 14 years, 54,599 persons aged 15 to 59 years, 13,715 aged 60 to 79 years and 4,469 persons aged 80 years and older (see Figure 3). The age of 188 notified cases is unknown. The median age of cases is 49 years.

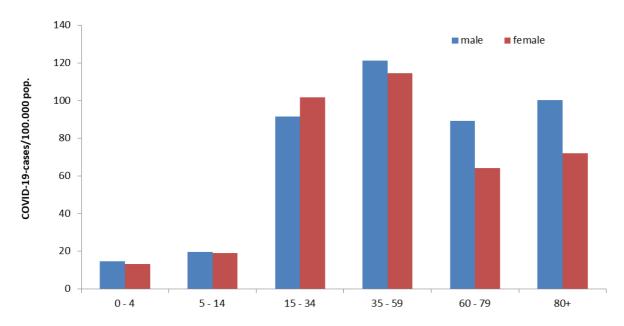


Figure 3: Electronically reported COVID-19-cases/100,000 population in Germany by age group and sex (n=73,252) for cases with information available (02/04/2020, 12:00 AM)

Clinical aspects

Information on symptoms is available for 53,351 of the notified cases. The most common manifestations are cough (53%), fever (42%) and rhinorrhoea (23%). For 1,132 cases, development of pneumonia is known (2%). Hospitalisation is reported for 7,216 (13%) of 54,034 COVID-19 cases with information on hospitalisation available.

An estimated 21,400 persons have recovered from their COVID-19 infection. Cases were considered to have recovered if they had a known symptom onset on or before 19/03/2020, were not reported to have pneumonia or dyspnea, did not require hospitalisation or had already been discharged and did not die. Cases were included in the algorithm only if information on date of symptom onset, symptoms, hospitalisation status and vital status were available.

The 872 COVID-19-related deaths reported in Germany since 09/03/2020 concerned 567 (65%) men and 304 (35%) women. The median age was 82 years and the range 28 to 105 years. Of all deaths, 751 (86%) were in persons 70 years or older. Of all reported cases only 12% were 70 years or older. Reports on COVID-19 related outbreaks in nursing homes are increasing. In these outbreaks the case fatality is high. In some of these outbreaks, the number of deaths is relatively high.

Table 2: Number of COVID-19-cases notified as having died by age group and sex (02/04/2020, 12:00 AM)

		Age groups (years)			
Sex	<60	60 - 69	70 - 79	80 - 89	>=90
male	39	53	153	270	52
female	9	19	47	177	51

DIVI intensive care register

The intensive care register of the German Interdisciplinary Association for Intensive and Emergency Medicine (DIVI), the RKI and the German Hospital Federation (DKG) records the intensive care capacities and the COVID-19 cases treated in the participating hospitals: https://www.divi.de/register/intensivregister.

As of 02/04/2020, 975 clinics or departments participate (+63 change since previous day). A total of 29,290 intensive care beds were registered, of which 11,500 (39%) are occupied; 9,020 beds are currently not occupied. A total of 8,770 beds could be newly occupied within 24 hours (Table 3).

Table 3: COVID-19 patients treated with intensive care medicine recorded in the DIVI register (02/04/2020, 7:15 am)

	Number of patients	Percentage	Changes to previous day*
In intensive medical treatment	2,139		+263
- thereof ventilated	1,797	84%	+265
Completed treatments	907		+162
- thereof deceased	309	34%	+64

^{*}to take into account the possible changed number of reporting clinics/departments

Laboratory tests

RKI launched a nationwide laboratory survey to determine the number of laboratory tests being performed for SARS-CoV-2 in Germany. This survey is supplemented by 3 further data collections from the Network for Respiratory Diseases (RespVir, RKI), the national network for the surveillance of antibiotic resistance in Germany (ARS, RKI) and the Association of Accredited Medical Laboratories in Germany (ALM e.V.). From the response of participating laboratories thus far, a total of at least 918,460 samples were tested up to week 13/2020. Of these, 64,906 samples (7,1%) tested positive for SARS-CoV-2.

Table 4: Laboratory tests performed for SARS-CoV-2 in Germany, calendar weeks 11 - 13 (01/04/2020)

Calender week 2020	Number of tests	Positive tests	Number of participating laboratories
11	127,457	7,582 (5.9%)	114
12	348,619	23,820 (6.8%)	152
13	354,521	30,741 (8.7%)	143

Results from other RKI surveillance systems on acute respiratory diseases

In GrippeWeb, the participatory web portal that monitors the activity of acute respiratory diseases in Germany on population level uses information from the population itself. The system reports that the rate of acute respiratory diseases (ARE rate) and also the rate of influenza-like diseases (ILI rate) in week 13 of 2020 has decreased substantially 3 weeks in a row. The contact-reducing measures, which are carried out throughout Germany, seem to lead to a marked reduction of the transmission of acute respiratory diseases. Further information is available at https://grippeweb.rki.de/.

In primary care practices, the Arbeitsgemeinschaft Influenza (AGI) monitors acute respiratory diseases with its network of primary care sentinel physicians. In week 13 of 2020 a significant decrease in practice consultations due to acute respiratory diseases was observed in all age groups. The AGI has expanded the virological surveillance to include SARS-CoV-2. Since week 8 of 2020, a total of 8 SARS-CoV-2 positive samples have been detected in the AGI sentinel. In week 13, SARS-CoV-2 was identified

in 2 of 121 (1.7%) examined sentinel samples. Influenza activity continued to decrease significantly compared to the previous week. Further information is available at https://influenza.rki.de/.

Within the ICD-10 code-based hospital surveillance of severe acute respiratory infections (SARI), 7% of the reported SARI cases received a COVID-19 diagnosis in week 12 of 2020. 16% and 13% of the SARI cases in the age groups 35 to 59 years and 60 to 79 years had received a COVID-19 diagnosis (Table 5). There were no COVID-19 cases in the child age groups.

Table 5: Proportion of cases with an additional COVID-19 diagnosis (U07.1!) in SARI cases (ICD-10 codes J09 - J22) with a stay of up to one week and an admission date in 12th week 2020. Data from 73 sentinel hospitals were included.

Age groups (years)	COVID-19-Diagnose (U07.1!) in SARI case group
0 - 4	0%
5 - 14	0%
15 - 34	5%
35 - 59	16%
60 - 79	13%
≥80	2%

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

- The following countries and regions are classified as international risk areas (31/03/2020) (https://www.rki.de/DE/Content/InfAZ/N/Neuartiges Coronavirus/Risikogebiete.html):
 - o Austria
 - Egypt
 - o Iran
 - Italy
 - France
 - In South Korea: The city of Daegu and the province of Gyeongsangbuk-do (North-Gyeongsang)
 - Spain
 - o In Switzerland: the cantons of Tessin, Waadt and Geneva

o In the United States: The states of California, Washington, New York and New Jersey The province of Hubei in China is no longer classified as an international risk area.

Other measures

- Field teams of the RKI support outbreak containment measures with a focus on outbreaks in retirement and health care homes as well as hospitals in several federal states.
- Since 31.03.2020, the RKI no longer identifies particularly affected areas in Germany. In many districts there are outbreaks, some with large case numbers. Data on current disease activity in the districts can be found on the dashboard and in the daily situation reports.
- 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
- As of 23 March 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/besprechungder-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-1733248