<u>COVID-19 CORONAVIRUS (/CORONAVIRUS/)</u> / AGE

Age, Sex, Existing Conditions of COVID-19 Cases and Deaths

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There are two sources that provide age, sex, and comorbidity statistics:

- The *Report of the WHO-China Joint Mission* published on Feb. 28 by WHO, [2] which is based on **55,924 laboratory confirmed cases**. The report notes that "*The Joint Mission acknowledges the known **challenges and biases of reporting crude CFR early in an epidem**ic*" (see also our discussion on: <u>How to calculate the mortality rate during an outbreak (/coronavirus/coronavirus-death-rate/#correct)</u>)

- A paper by the Chinese CCDC released on Feb. 17, which is based on **72,314 confirmed, suspected, and asymptomatic cases** of COVID-19 in China as of Feb. 11, and was published in the Chinese Journal of Epidemiology [1]

We will list data from both, labeling them as "**confirmed cases**" and "**all cases**" respectively in the tables.

Age of Coronavirus Deaths

COVID-19 Fatality Rate by AGE:

Death Rate = (number of deaths / number of cases) = **probability of dying if infected by the virus** (%). This probability differs depending on the age group. The percentages shown below **do not have to add up to 100%**, as they **do NOT represent share of deaths by age** group. Rather, it represents, for a person in a given age group, the **risk of dying** if infected with COVID-19.

AGE	DEATH RATE confirmed cases	DEATH RATE all cases
80+ years old	**21.9%**	**14.8%**
70-79 years old		**8.0%**
60-69 years old		**3.6%**
50-59 years old		**1.3%**
40-49 years old		**0.4%**
30-39 years old		**0.2%**
20-29 years old		**0.2%**
10-19 years old		**0.2%**
0-9 years old		**no fatalities**

Death Rate = (number of deaths / number of cases) = **probability of dying if infected by the virus** (%). The percentages **do not have to add up to 100%**, as they **do NOT represent share of deaths by age** group.

In general, relatively few cases are seen among children.

Sex ratio

COVID-19 Fatality Rate by SEX:

*__Death Rate__ = (number of deaths / number of cases) = __probability of dying if infected by the virus__ (%). This probability differs depending on sex. When reading these numbers, it must be taken into account that __smoking__ in China is much more prevalent among males. Smoking increases the risks of respiratory complications.

SEX	DEATH RATE confirmed cases	DEATH RATE all cases
Male	4.7%	2.8%
Female	2.8%	1.7%

*__Death Rat__e = (number of deaths / number of cases) = __probability of dying if infected by the virus__ (%). The percentages __do not have to add up to 100%__, as they __do NOT represent share of deaths by sex.__

Pre-existing medical conditions (comorbidities)

Patients who reported no pre-existing ("comorbid") medical conditions had a case fatality rate of 0.9%. Pre-existing illnesses that put patients at higher risk of dying from a COVID-19 infection are:

COVID-19 Fatality Rate by COMORBIDITY:

*__Death Rat__e = (number of deaths / number of cases) = __probability of dying if infected by the virus__ (%). This probability differs depending on pre-existing condition. The percentage shown below does __NOT represent in any way the share of deaths by pre-existing condition__. Rather, it represents, for a patient with a given pre-existing condition, the __risk of dying__ if infected by COVID-19.

PRE-EXISTING CONDITION	DEATH RATE confirmed cases	DEATH RATE all cases
Cardiovascular disease	13.2%	10.5%
Diabetes	9.2%	7.3%
Chronic respiratory disease	8.0%	6.3%
Hypertension	8.4%	6.0%
Cancer	7.6%	5.6%
no pre-existing conditions		0.9%

*__Death Rat__e = (number of deaths / number of cases) = __probability of dying if infected by the virus__ (%). The percentages __do not have to add up to 100%__, as they __do NOT represent share of deaths by condition.__

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- **Case statistics and graphs** (/coronavirus/coronavirus-cases/)

- **Death statistics and graphs** (/coronavirus/coronavirus-death-toll/)

- **Mortality Rate** (/coronavirus/coronavirus-death-rate/)

- **Transmission Rate** (/coronavirus/#repro)

- **Incubation Period (/coronavirus/coronavirus-incubation-period/)**

- **Age, Sex, Existing Condition (/coronavirus/coronavirus-age-sex-demographics/)**

- **Symptoms (/coronavirus/coronavirus-symptoms/)**

- **Countries with cases: basic list (/coronavirus/countries-where-coronavirus-has-spread/) - detailed list (/coronavirus/#countries)**

Sources

1. The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) (http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51) - China CCDC, February 17 2020
2. Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19) (https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf) [Pdf] - World Health Organization, Feb. 28, 2020