The demography of COVID-19 deaths (https://dc-covid.site.ined.fr/en/) Summary of metadata for Denmark (Last revised 08/07/2022)

Development of data collection systems during the pandemic

In Denmark, the Statens Serum Institut (SSI) has been tracking COVID-19-related deaths since the beginning of the epidemic. Initially, the SSI relied on vital statistics. From 28/03/2020, deaths within 30 days of detection of COVID-19 infection were counted as COVID-19-related deaths. Since 15/12/2021, reinfections are also counted (positive PCR test 61 days or more after testing positive). Until 09/02/2022, these reinfected deaths were counted only in the totals, but since 10/02/2022, they are also counted in the age and sex distribution.

Summary description of each source as of 21 April 2022

A.1. Data source 1

Statens Serum Institut (SSI):

https://www.ssi.dk/sygdomme-beredskab-og-forskning/sygdomsovervaagning/c/covid19-overvaagning

A.2. Coverage

2.1 COVID-19 definition

Confirmed COVID-19 deaths (by PCR test).

2.2 Place of death

All places.

2.3. Geographical coverage

The whole country.

2.4. Time coverage

From 24/03/2020 to 21/04/2022.

A.3. Data collection method

Counting of deaths within 30 days of infection with COVID-19.

A.4. Collected data

- 4.1. Age group: 0-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80-89, 90+
- 4.2. Sex: male and female, broken down by age group
- 4.3. Reference date type: report date for age and sex data in the Excel tab "SSI_by age and sex_Data"; date of death for daily totals in the Excel tab "SSI_Total_DateOccurrence_Data".
- 4.4. Place of death: Not applicable

A.5. Update frequency and data cut-off time

Epidemiological surveillance data are published daily between 13:00 and 14:00, with data collected up to 08:00 the same day. Weekly updates are made on Tuesday at 14:00.

ANNEX: Detailed metadata sheet for Denmark (Last revised 11/02/2022)

Data Source

Daily surveillance reports published by the Statens Serum Institut (SSI):

Statens Serum Institut, "COVID-19 i Danmark: Epidemiologisk overvågningsrapport" [COVID-19 in Denmark: Epidemiological surveillance report], URL: https://www.ssi.dk/aktuelt/sygdomsudbrud/coronavirus/covid-19-i-danmark-epidemiologisk-overvaagningsrapport

As of 20 May 2020, the SSI no longer publishes daily epidemiological reports in PDF format. All daily surveillance data can be consulted online at:

https://www.ssi.dk/sygdomme-beredskab-og-forskning/sygdomsovervaagning/c/covid19-overvaagning

Since 14 September 2020, daily surveillance data have been updated and published via the SSI's COVID-19 dashboard, available online: www.ssi.dk/covid19data

Some surveillance data continue to be updated via the SSI's surveillance webpage:

https://www.ssi.dk/sygdomme-beredskab-og-forskning/sygdomsovervaagning/c/covid19-overvaagning

Coverage

Deaths of people who tested positive for COVID-19.

Data collection method

The number of COVID-19 deaths reported by the SSI is collected from the Danish Civil Registration System (CPR) and the Cause of Death Register. As such, there may be a delay between the date of death (as indicated in those registers) and the date on which the deaths are included in SSI's daily reports and updates. COVID-19 is not necessarily the underlying cause of death.

The cumulative number of deaths reported daily by the SSI corresponds to the number of deaths recorded within 30 days of detection of COVID-19 infection with a positive laboratory test. This definition was changed (from 60 to 30 days) on 29 March 2020, following advice from the COVID-19 network of the European Centre for Disease Prevention and Control (ECDC). On 12 May 2020, the SSI published retrospectively-corrected data, as patients who died in the intensive care unit more than 30 days after laboratory confirmation of COVID-19 infection had mistakenly been included among the reported COVID-19 deaths (12 patients to that date, since 25 April 2020).

Since December 15 2021, SSI's COVID-19 dashboard also includes the re-infected individuals in the key figures on new admissions and deaths. Re-infected individuals are people who test positive for COVID-19 again, 61 days or more after having tested positive (based on results of PCR tests only). There is no requirement of a negative PCR test between two consecutive positive tests, and there is no limit to the number of re-infections that a person can have. Until February 9 2022, these deaths were only included in the key (total) figures of the dashboard. From February 10 2022, they are also included in the distribution of COVID-19 deaths by age and sex.

The time series coming from this data source and published in the excel sheet "SSI_Total_DateOccurrence_Data" includes death counts occurred since the beginning of the pandemic and may account for retrospective corrections.

Data collected

Our data files provide the following information, based on the SSI's daily reports and updates:

- The daily cumulative number of COVID-19 deaths, by age¹ and sex, from 3 April 2020 onwards². These data are by date of publication (see **Publication frequency and data cut off time**).
- The total daily cumulative number of COVID-19 deaths by date of occurrence (i.e., all ages and both sexes combined), from 24 March 2020 onwards.

Further data on COVID-19 cases by region, hospitalization, presence of comorbidities and other variables are available in the documentation files downloadable from our website "The Demography of COVID-19 Deaths". This information can also be consulted in the SSI's archives (see **Data Source**).

Publication frequency and data cut off time

The surveillance reports are published daily between 13:00 and 14:00, comprising data reported up until 08:00 the same day.

From 20 May 2020 onwards, the daily reports in PDF format were replaced by online updates (see **Data Source**); distributions by age and sex are not usually updated at weekends or on public holidays.

Since 29 June 2020, the distribution of deaths by age and sex has been updated only once a week (on Tuesdays, at 14:00).

Since 14 September 2020, the distribution of deaths by age (for both sexes combined) has been updated daily in the SSI's COVID-19 dashboard (see **Data Source**). Distribution by age and sex continues to be updated every Tuesday on the SSI's surveillance website.

¹ Due to the low number of cases below age 70 and for confidentiality issues, ages 0 to 69 are pooled together in the initial days of this series in the original reports. From 6 April the following age-groups are available: under 60, 60-69, 70-79, 80-89, 90+.

² The SSI's daily surveillance reports start on 12 March 2020. However, the distribution of COVID-19 deaths by date of occurrence and by age-group and sex is only provided from 24 March and 3 April 2020 respectively.