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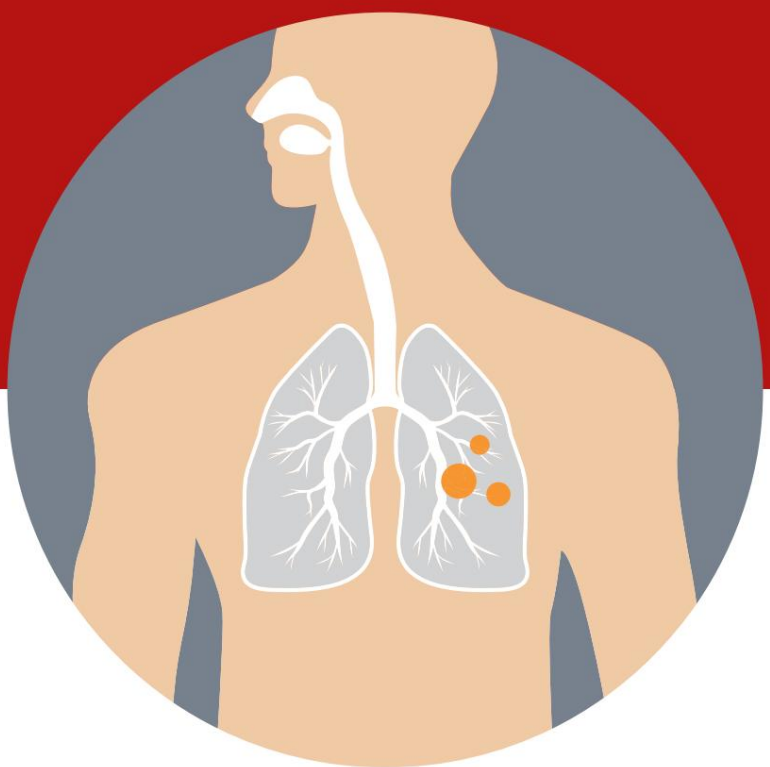
# Weekly trends: covid-19 and other respiratory infections

## Week 47 | 2022



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# The epidemiological development of covid-19 and other respiratory infections in Denmark from week 45 to week 46

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# Overall assessment

The number of confirmed cases with SARS-CoV-2 has decreased in week 46 compared to week 45 to an incidence of 64 cases per 100,000 inhabitants. The number of confirmed cases has decreased or stabilized in all age groups except among those between 6 and 19 years old, where an increase in numbers is seen.

There is a decrease in the number of new hospital admissions with positive SARS-CoV-2 test from 275 admissions in week 45 to 245 admissions in week 46. The age groups from 70 to 89 years old still constitute the largest share of new admissions. The number of admissions to intensive care units with positive SARS-CoV-2 tests is still at a very low level in week 46.

The number of confirmed cases with SARS-CoV-2 among nursing home residents is decreasing in week 46, while a slight increase is seen in the number of new hospital admissions among nursing home residents with a positive SARS-CoV-2 test. By the end of week 46, 88.1% of all nursing home residents have received a booster vaccination with a COVID-19 vaccine since the 15th of September.

Since the 15th of September 2022, approximately 72% of the population above 50 years old have received a booster vaccination with a COVID-19 vaccine. Analyzes of vaccine efficacy show that persons who have received a 4th dose of vaccination since the 15th of September are well protected against hospitalization as a result of COVID-19 and approximately 75% better protected than persons who have only received a 3rd dose.

The number of COVID-19 related deaths is stable with 38 deaths in week 46 compared to 39 deaths in week 45. There is no general excess mortality in the population in week 46.

BA.5 is still the dominant variant in week 46 but constitute a slightly decreasing share at 78% of the sequenced tests compared to 79% in week 45. The subvariant BQ.1.1 has risen in week 46 to 29% and is the most frequent subvariant. There is no indication that these subvariants on the rise should result in a more adverse course of disease.

On a national level, the same concentration of SARS-CoV-2 in waste water sampling is seen in week 46 as in the previous week. The last three weeks have shown a stabilization in the weekly growth rate.

In week 46, the proportion of COIVDmeter's user panel who are presumed infected with COVID-19 has increased slightly.

Overall, a decreasing number of confirmed cases with SARS-CoV-2 is seen alongside a decrease in new hospital admissions and a stabilization in the concentration of SARS CoV-2 in waste water samplings in week 46 compared to the week before. The number of admissions to intensive care units with a positive SARS-CoV-2 test is still at a low level. There is no general excess mortality in the population in week 46 and the number of deaths

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related to COVID-19 is stable compared to the week before. Around 72% of the population over 50 years old has now received a booster vaccination.

A high and increasing prevalence of RSV-infections is seen over the latest weeks, possibly showing signs of slowing down or decreasing slightly in week 46. Cases of RSV continue to lie above the usual RSV-outbreaks in the winter season and the infections are taking place at an unusually early time of the winter season.

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# Summary

- After a stabilization in the number of persons confirmed to be infected with SARS CoV-2 from week 44 to week 45, a decrease is seen again from week 45 to week 46. The incidence is 64 cases per 100,000 inhabitants in week 46 against 72 in week 45. The number of PCR tests has fallen slightly, corresponding to 8% from week 45 to week 46. The positive percentage is stable at 11% in week 46.

- From week 45 to week 46, a decrease in the incidence of infection is seen in all five regions. In week 46, the incidence of infection is still highest in Region Zealand (83 per 100,000 inhabitants). The lowest incidence of infection is seen in week 46 in Region North Jutland (51 cases per 100,000 inhabitants). The highest positive percentage of 14% is seen in week 46 in Region Central Jutland.

- From week 45 to week 46, there is a decrease in the number of confirmed infected in most age groups, while there is an increase in the age group 6-19 years and a stabilization in the age group 3-5 years. For the third week in a row, the incidence of infection is highest among the 40-49-year-olds (101 cases per 100,000 inhabitants in week 46).

- The test rate has stabilized from week 45 to week 46 among the 0-29-year-olds and the 70-79-year-olds, while it is slightly decreasing in the remaining age groups.

- From week 45 to week 46, the positive percentage has decreased or stabilized in most age groups, except among the 3-19-year-olds and 50-59-year-olds, where the positive percentage has increased. The highest positive percentage of 19% is seen among 16- to 19-year-olds.

- For the fifth week in a row, there is a decrease in the number of new hospital admissions where there is a positive test for SARS-CoV-2. There are thus 245 new admissions in week 46 compared to 275 in week 45. It is still the 70-89-year-olds who make up the largest group of new admissions, just as it has been the case since the beginning of the year. The number of people hospitalized in intensive care units with a positive test for SARS-CoV-2 remains low, at 8 cases in week 46. The proportion of hospitalizations among people with a positive test for SARS-CoV-2 who are hospitalized due to covid-19 has fluctuated around 45% over the summer and autumn and is in week 44 at 41%. See updated classification of covid-19-related admissions.

- In week 46, 7 new hospital admissions per 100,000 inhabitants are seen among +50-year-olds who are booster-vaccinated after 15 September 2022 compared to 12 new hospital admissions per 100,000 among +50-year-olds who are unvaccinated or last vaccinated before September 15 2022. Among the +85-year-olds, 33 new hospital admissions per 100,000 are seen who are booster-vaccinated after 15 September 2022 compared to 88 new hospital admissions per 100,000 who are unvaccinated or last vaccinated before 15 September 2022.

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- From this week, analyzes of vaccine effectiveness against hospitalization will be included. This data is updated approx. every four weeks. Compared to people who received only 3 vaccine shots more than 140 days ago, people who received a 4th shot from 15 September 2022 are well protected against hospitalization due to covid-19.
  The analysis shows that among over 50-year-olds, people who have received the 4th jab are approximately 75% better protected against hospitalization than people who have only received 3 jabs.

- The number of covid-19-related deaths stable with provisionally 38 deaths in week 46 compared to 39 in week 45. The overall mortality in Denmark is at a normal level.

- Among nursing home residents, the number of confirmed cases has dropped to 55 cases in week 46, preceded by a decreasing number of cases since week 39. In week 46, a drop in the test rate has been seen to 5.4% from 6.2% in week 45. At the same time, the positive rate decreased to 2.5% compared to 2.8% week 45. The number of deaths among residents with covid 19 is 8 in week 46 and has been constant since week 43 at between 8 and 9 cases.
  In the regions, a decrease in the number of cases is particularly evident in Region Southern Denmark and smaller decreases are seen in Region North Jutland and Region Zealand. A small increase in the number of cases is seen in the Capital Region and Central Jutland Region compared to week 45. The number of newly admitted nursing home residents in hospital has increased to 13 in week 46 from 9 in week 45. In week 46, 88.1% of nursing home residents have received a booster vaccination with a covid-19 vaccine since 15 September 2022.

- From week 45 to week 46, there is a decrease in the number of confirmed cases of SARS CoV-2 among staff in the social and health sector. In the social sector, the incidence of infection in week 46 has fallen from 176 to 144 cases per 100,000 inhabitants, the test rate has also fallen from 3.7% to 3.1%, and the positive rate has fallen slightly from 4.8% to 4.7%. Among healthcare workers, the number of confirmed cases has decreased from 190 to 152 cases per 100,000 inhabitants from week 45 to week 46.

  The test rate has fallen from 1.0% to 0.8%, and the positive rate has also fallen from 11% to 10%.

- By calculation at the end of week 46, 72% of the population over the age of 50 have received a booster vaccination with a covid-19 vaccine since 15 September 2022.
  The proportion is 85% among people aged 85 and over. See SSI's vaccine dashboard for further information regarding booster vaccination.

- BA.5 and its sub-variants continue to be the dominant variants in Denmark, but individual sub-variants of both BA.5 and BA.2 stand out more and more significantly. BQ.1.1 (subvariant of BA.5) constitutes in week 46 approx. 29% of the sequenced samples and is still increasing. The same applies to BA.2.75 (subvariant of BA.2), which makes up approx. 13% of the sequenced samples in week 46. The variant XBB (recombinant), which has made up increasing proportions in recent weeks, is stable in the last week at approx. 4%. There is no indication that these variants are

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associated with more severe disease. In general, reservations must be made that a large number of samples for week 46 still need to be sequenced.

- In week 46, a concentration of SARS-CoV-2 is seen in the waste water, which is similar to the week before. In the Capital Region, Region Zealand and Region Southern Denmark, a slightly lower concentration of SARS-CoV-2 is seen in the waste water than the week before, whereas in Region Central Jutland and Region North Jutland a slightly higher concentration of SARS-CoV-2 is seen in the waste water than the week before .
  At national level, there has been a stabilization in the weekly growth rate over the past three weeks. In the regions, over the past three weeks there has been a stabilization in the growth rate in all regions, except in Region Zealand, where there has been a fall in the weekly growth rate.

- In the waste water in week 45, a small increase in the proportion of BA.2.75 is seen, which constitutes just under 8.5% of the normalized number of sequences nationwide. This is because in North Zealand there is an increase of this variant to approx. 25%. The same level of occurrence of BQ.1.* (BQ.1 and its subvariants) is seen as in the previous week and this variant makes up 28.5% of the detected sequences nationwide. The BA.5 share continues to fall, making up 63% of the sequences this week.
  The occurrence of variants in the wastewater at the individual sampling locations is normalized in relation to the amount of virus in the wastewater and the population in the catchment area, but since a maximum of 50 samples are sequenced weekly of the total approx. 200 samples taken per week is the occurrence of the stated percentage of e.g. BA.2.75 and BQ.1.* not necessarily a direct expression of the distribution of this variant in the entire population, but nevertheless express trends of the distributions between the variants.

  The distribution of the variants in the individual parts of the country can be seen here. Data this week, the analysis is based on 43 successful sequencing out of 50 possible.

- After four weeks with a decrease in the share of the COVIDmeter user panel that is presumed to be infected with covid-19, the share rises slightly from 0.8% in week 45 to 0.9% in week 46. At the regional level, a slight increase is seen in all regions, the phrase Capital Region, where a decrease is seen from week 45 to week 46. The highest proportion of presumed infected with covid-19 is seen among the 40-49-year-olds in week 46.
  The test rate is stable at 3.7% in week 46, while the positive rate has fallen to 10% in week 46 from 12% in week 45.

- The sentinel monitoring shows that the proportion of samples in which respiratory virus was detected was stable from week 43 to week 44 at 57%, while the number of samples fell slightly from 158 in week 43 to 149 in week 44. In week 44, RS- virus, rhinovirus, adenovirus and enterovirus the most frequently detected viruses in the samples from the sentinel surveillance.

- A high and increasing incidence of RSV infection has been seen over the past six weeks, which may show signs of slowing down or a slight decrease in week 46. The RSV infection is now above what is seen during the usual RSV outbreaks in the winter months, and the infection drops unusually early in the season. Especially children

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younger than 6 months is affected. The incidence of influenza virus is at a low, normal level for the time of year.

The development of RS virus and influenza can also be followed on SSI's dashboard for RS virus, and SSI's Flu Dashboard.

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# Overall assessment

The number of cases found to be infected with SARS-CoV-2 has decreased in week 46 compared to week 45, and the incidence of infection in week 46 is 64 cases per 100,000 inhabitants. The infection has decreased or stabilized in all age groups except the 6-19 year olds, where there has been an increase.

A decrease in the number of new admissions with a positive SARS-CoV-2 test has been seen in week 46, from 275 admissions in week 45 to 245 in week 46. The age groups from 70 to 89 still make up the largest proportion of new admissions. The number of people admitted to intensive care units with a positive SARS-CoV-2 test is still at a very low level in week 46.

A decreasing incidence of infection is seen among nursing home residents with a positive SARS CoV-2 test in week 46. At the same time, a slight increase is seen in the number of newly admitted nursing home residents with a positive SARS-CoV-2 test.

At the end of week 46, 88.1% of nursing home residents have received a booster vaccination with a covid-19 vaccine since 15 September.

Since 15 September 2022, approx. 72% of the population over 50 received a booster vaccination with a covid-19 vaccine. Analyzes of vaccine effectiveness show that people who received the 4th shot since September 15 are well protected against hospitalization due to covid-19 and approximately 75% better protected than people who received only 3 shots.

The number of covid-19-related deaths is stable in week 46 compared to last week, with 38 deaths in week 46 compared to 39 in week 45. There is no excess mortality in general in the population in week 46.

BA.5 is still the dominant variant in week 46, but represents a slightly decreasing share of 78% compared to 79% in week 45. The subvariant BQ.1.1 has increased in week 46 to 29%, and is the most frequently occurring subvariant. There is no evidence that the subvariants that have been increasing are associated with more severe disease.

In week 46, the same concentration of SARS-CoV-2 in the waste water is seen nationally as in the previous week. At national level, there has been a stabilization in the weekly growth rate over the past three weeks.

In week 46, a small increase is seen in the proportion of COVIDmeter's user panel which is presumed to be infected with covid-19.

In week 46, there is a decreasing incidence of infection with SARS-CoV-2, a decrease in the number of new admissions with a positive SARS-CoV-2 test and a stabilization in the concentration of SARS-CoV-2 in waste water compared to the previous week . The number of people hospitalized in intensive care with a positive SARS-CoV-2 test remains at a low level. There is no overall excess mortality in the population and the number of deaths related to covid-19 is stable from the previous week. Approx. 72% of the population over the age of 50 have now received a booster vaccination.

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A high and increasing incidence of RSV infection has been seen over the previous weeks, possibly showing signs of slowing down or slightly decreasing in week 46. RSV infection remains above what is seen during the usual RSV outbreaks in the winter months, and the infection occurs unusually early in the season.

**At the end of this report, the data basis is described.**

*Note: Be aware that staff in care for the elderly (in nursing homes and in home care) and staff on social services with vulnerable people are encouraged to be PCR tested once every 14 days from Monday in week 33.*

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# key figures

## Covid-19

***Table 1. COVID-19: Key numbers and trends, weekly, 2022***

**Table 1. Covid-19: Key numbers and trends, distributed by week, 2022**

| Covid-19 | 2022 | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Incidence per 100,000 inhabitants* | 152 | 129 | 102 | 7 1 | 7 2 | 6 4 | |
| Number of tests performed (PCR) | 56,019 | 47,328 | 45,804 | 38,805 | 39,429 | 36,459 | |
| Confirmed cases (PCR) | 9,015 | 7,613 | 6,008 | 4,197 | 4,247 | 3,781 | |
| Positive rate (PCR) | 17.6 | 17.8 | 14.3 | 11.8 | 11.7 | 11.3 | |

Notes to table: The positive percentage in this table is exclusively calculated on the basis of PCR tests from public authorities.

* The population for calculating incidences is described in the database under the item "Populations for calculating incidence".

***Table 2. COVID-19: Key numbers and trends for hospital admissions and deaths, weekly, 2022*** **Table 2. Covid-19: Key numbers and trends for hospital admissions and deaths, distributed by week, 2022**

| Covid-19 | 2022 | | | | | | |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| New hospital admissions | 764 | 614 | 462 | 323 | 275 | 245 | |
| Number admitted Monday morning | 548 | 521 | 465 | 368 | 317 | 273 | |
| Number admitted to intensive care on Monday morning | 1 7 | 1 2 | 1 8 | 1 2 | 1 2 | 8 | |
| Number of dead * | 5 5 | 8 8 | 6 4 | 6 2 | 3 9 | 3 8 | |

* Number of dead is updated backwards as data may be delayed due to post-registration.

***Table 3. COVID-19: Key numbers and trends for vaccination, weekly, 2022***

**Table 3. Covid-19: Key numbers and trends for vaccination, distributed by week, 2022**

Data is updated backwards.

| Covid-19 vaccination | 2022 | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Number of people who have received boosters since 15 September 2022 | 1,059,756 | 1,327,239 | 1,544,241 | 1,670,275 | 1,766,870 | 1,820,525 | |
| Proportion of people who have received a booster since 15 September 2022 (entire population) (%) | 17.9 | 22.4 | 26.0 | 28.2 | 29.8 | 30.7 | |
| Proportion of people who have received a booster since 15 September 2022, +50-year-olds (%) | 42.8 | 53.6 | 62.0 | 66.8 | 70.5 | 72.4 | |
| Proportion of people who have received a booster since 15 September 2022, +85-year-olds (%) | 67.7 | 73.2 | 78.9 | 82.0 | 84.0 | 85.2 | |
| Proportion of people who have received boosters since 15 September 2022 nursing home residents (%) | 8 5 | 8 6 | 8 7 | 8 7 | 8 8 | 8 8 | |

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***Table 4. COVID-19: Comparative vaccine effectiveness against hospitalization for COVID 19 of a fourth vaccine dose relative to three vaccine doses given more than 140 days earlier*** **Table 4. Covid-19: Comparative vaccine effectiveness against hospitalization due to COVID-19 among persons who have had a 4th injection relative to people who have only had 3 injections more than 140 days ago.**

| Covid-19, vaccination status | Population, +50-year-olds | Hospitalization due to covid-19 | Observation time (weeks) | Estimated kVE, % (95% CI) |
|---|---|---|---|---|
| 3rd injection given ÿ 140 days ago (not variant updated vaccine) | 2,006,039 | 590 | 3 | 1 |
| 4th injection given after 15 September 2022 | 1,022,226 | 8 3 | 2 | 75.4 (68.3; 81.0) |

Notes to table: The study period was from 29 September to 31 October 2022.

Vaccine efficacy is calculated as 1 minus HR, where HR is a hazard ratio from a Cox regression analysis adjusted for age, sex, region, co-morbidity and previous infection.

cVE = comparative vaccine efficacy for 4th shot compared to 3rd shot.

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## Other respiratory diseases

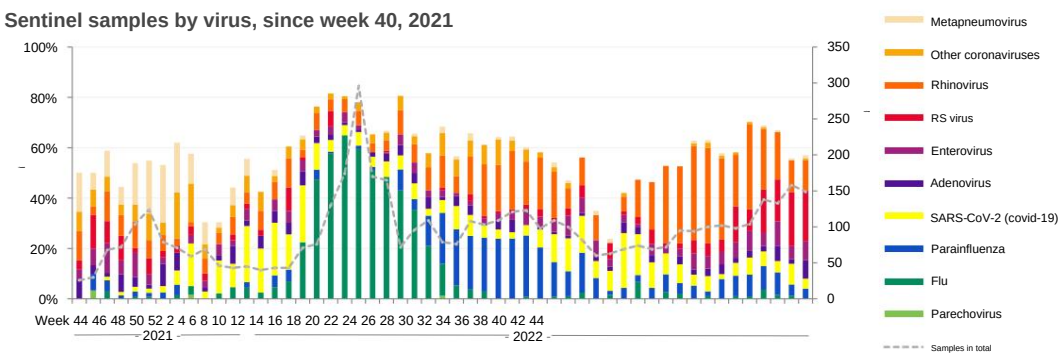
Data is updated backwards.

Follow the development of sentinel surveillance – general practitioners' surveillance of influenza-like illness on SSI's website.

***Table 5. Sentinel surveillance: Total number of tests, proportion respiratory virus infections (%) and proportion of different types of respiratory virus infections with 5 or more cases in week 39-44, 2022*** **Table 5. Sentinel surveillance: total number of samples, proportion detected respiratory virus (%) and proportion of different types of respiratory virus with 5 or more cases in weeks 39-44, 2022**

| | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 39 | 40 | 41 | 42 | 43 | 44 | 39-44 |
| Total number of samples | 98 | 104 | 138 | 133 | 158 | 149 | |
| Detected respiratory viruses (%) | 58.2 | 70.2 | 68.8 | 66.9 | 55.7 | 57.0 | |
| Detected cases of RS virus (%) | 14.3 | 8.7 | 17.4 | 16.5 | 21.5 | 20.1 | |
| Detected cases of influenza (%) | 1.0 | 1.0 | 3.6 | 1.5 | 1.3 | 0.0 | |
| Confirmed cases of covid-19 (%) | 5.1 | 6.7 | 5.8 | 4.5 | 8.2 | 4.0 | |
| Detected cases of rhinovirus (%) | 20.4 | 33.7 | 23.9 | 18.8 | 12.7 | 12.1 | |
| Adenovirus detected cases (%) | 2.0 | 2.9 | 2.2 | 6.0 | 1.9 | 7.4 | |
| Detected cases of enterovirus (%) | 6.1 | 7.7 | 5.1 | 9.8 | 5.1 | 7.4 | |
| Detected cases of parainfluenza (%) | 8.2 | 8.7 | 9.4 | 9.0 | 4.4 | 4.0 | |

***Figure 1. Respiratory viruses: Sentinel tests across virus types, over the latest year, 2021-2022*** ***Figure 1. Respiratory viruses: Sentinel tests across virus types, over the latest year,*** **2021-2022**



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Follow the development in RSV- and influenza surveillance on SSI's website.

***Table 6. Respiratory syncytial virus (RSV): Key numbers and trends, week 41-46, 2022***

**Table 6. Respiratory syncytial virus (RSV): key numbers and trends, week 41-46, 2022**

| RSV | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Incidence per 100,000 inhabitants | 11.9 | 12.7 | 13.1 | 15.1 | 16.6 | 15.7 | |
| Number of people tested | 3.116 | 2,981 | 3,225 | 3,130 | 3,366 | 3,393 | |
| Positive percentage | 22.6 | 25.3 | 24.0 | 28.6 | 29.2 | 27.4 | |
| Number of new admissions | 265 | 300 | 345 | 341 | 393 | 312 | |

***Table 7. Influenza: Key numbers and trends, week 41-46, 2022***

**Table 7. Influenza: key numbers and trends*, week 41-46, 2022**

| Flu | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Incidence per 100,000 inhabitants | 0.5 | 0.4 | 0.7 | 0.5 | 0.9 | 0.8 | |
| Number of people tested | 12,066 | 11,447 | 11,977 | 11,675 | 12,326 | 12,215 | |
| Positive percentage | 0.2 | 0.2 | 0.4 | 0.2 | 0.4 | 0.4 | |
| Number of new admissions | 673 | 550 | 432 | 296 | 259 | 191 | |

* Children between 2 and 6 years of age who have received the live attenuated vaccine and who test positive for influenza A or B within 14 days of vaccination, do not count as positive influenza cases.

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# General mortality

SSI contributes every week with the monitoring of mortality in Denmark, by calculating the number of the total number of deaths in society in relation to the expected number of deaths in Denmark. See also note on mortality. In addition, SSI contributes to mortality monitoring together with 26 other European countries (www.euromomo.eu).

***Figure 2. Number of deaths in total per 100,000 person-weeks over the latest year, 2021-2022.***

***Figure 2. Total number of deaths per 100,000 person-weeks in the past year, 2021-2022.***

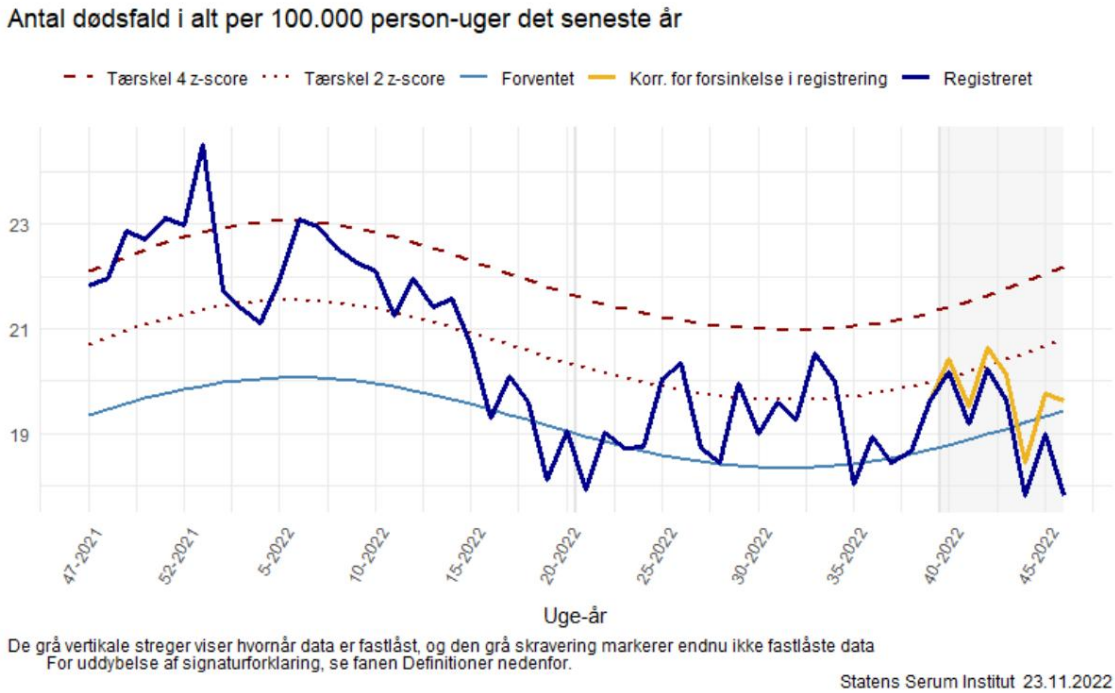

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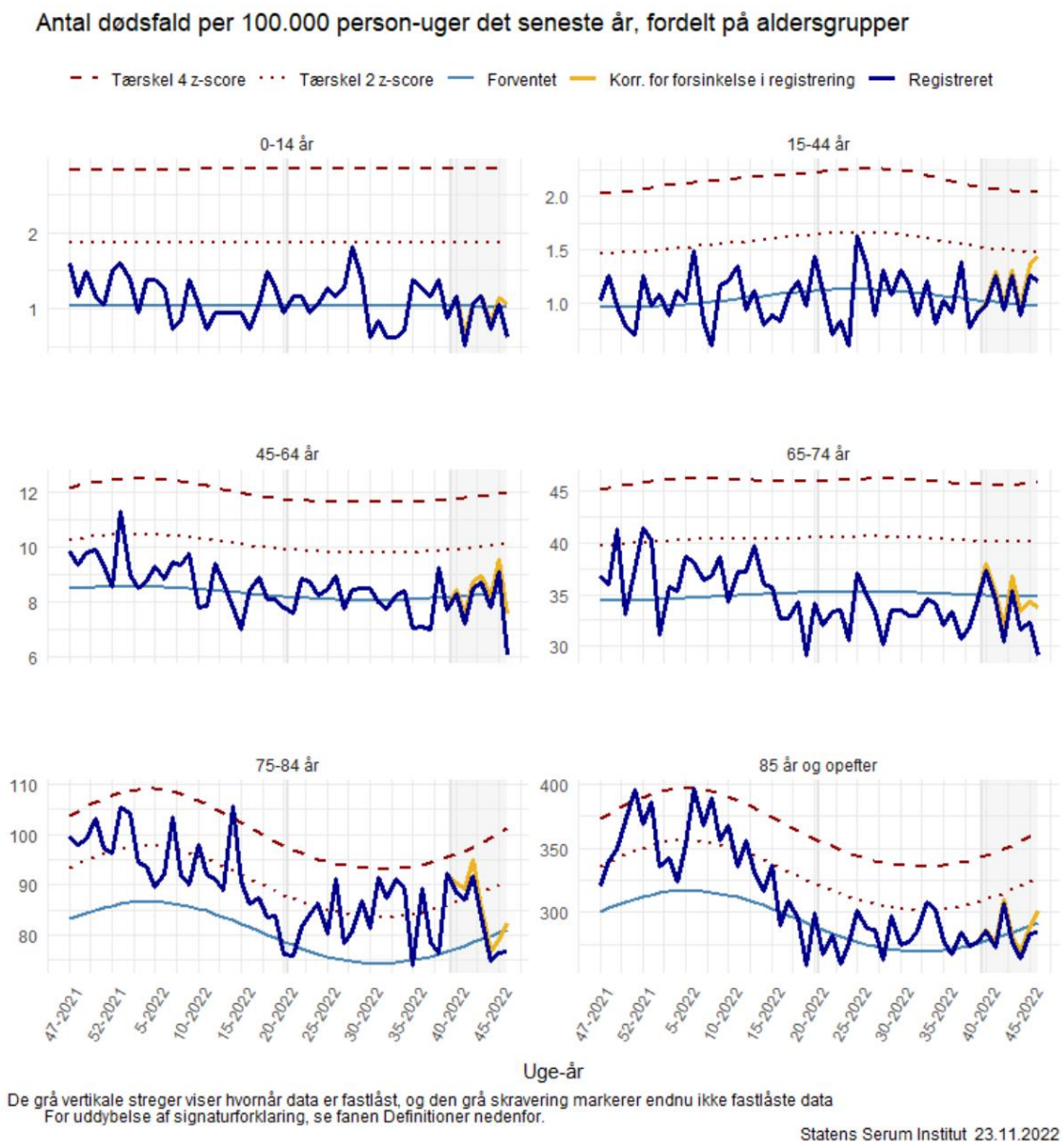
***Figure 3. Number of deaths in total per 100,000 person-weeks over the latest year, by age group, 2021-2022.***
***Figure 3. Total number of deaths per 100,000 person-weeks in the past year, divided by age group, 2021-2022.***



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# Trends - covid-19

In this section, more detailed graphs and tables are shown to illustrate the development of covid 19 in the past six weeks.

For other respiratory infections, refer to SSI's website under disease surveillance.

## Regional differences

***Table 8. COVID-19: Key numbers and trends by region, weekly, 2022***

**Table 8. Covid-19: Key numbers and trends by region, distributed by**

| Covid-19 | Region | week, 2022 2022 week | | | | | | Trend week 41-46 |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 | 44 | 45 | 46 | |
| Incidence per 100,000 inhabitants | The capital | 115 | 103 | 8 4 | 6 1 | 6 8 | 6 3 | |
| | Central Jutland | 156 | 128 | 9 9 | 7 2 | 6 4 | 5 9 | |
| | Northern Jutland | 162 | 113 | 9 4 | 6 2 | 6 5 | 5 1 | |
| | Zealand | 191 | 165 | 135 | 9 1 | 9 8 | 8 3 | |
| | Southern Denmark | 171 | 150 | 110 | 7 4 | 70 | 6 3 | |
| Positive percentage | The capital | 14.7 | 15.3 | 12.9 | 10.7 | 11.4 | 11.2 | |
| | Central Jutland | 21.8 | 22.8 | 17.1 | 15.2 | 14.1 | 14.0 | |
| | Northern Jutland | 18.6 | 14.4 | 13.5 | 10.3 | 10.4 | 8.5 | |
| | Zealand | 17.3 | 18.9 | 15.1 | 12.1 | 12.1 | 11.5 | |
| | Southern Denmark | 17.9 | 18.3 | 13.7 | 11.3 | 10.9 | 10.6 | |
| New hospital admissions | The capital | 243 | 206 | 156 | 102 | 9 8 | 8 1 | |
| | Central Jutland | 118 | 9 6 | 6 4 | 4 8 | 3 7 | 3 3 | |
| | Northern Jutland | 7 1 | 6 3 | 4 7 | 3 5 | 2 9 | 30 | |
| | Zealand | 181 | 121 | 9 2 | 7 4 | 60 | 50 | |
| | Southern Denmark | 150 | 125 | 9 9 | 6 3 | 4 9 | 50 | |
| | Unknown region | 1 | 3 | 4 | 1 | 2 | 1 | |

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## Age-distributed incidence, test rates and positive percentage

Data is updated backwards.

See also cases by age SSI's regional dashboard.

***Figure 4. COVID-19: Age-specific incidence per 100,000 inhabitants***
**Figure 4. Covid** -19: Age-specific incidence per 100,000 inhabitants

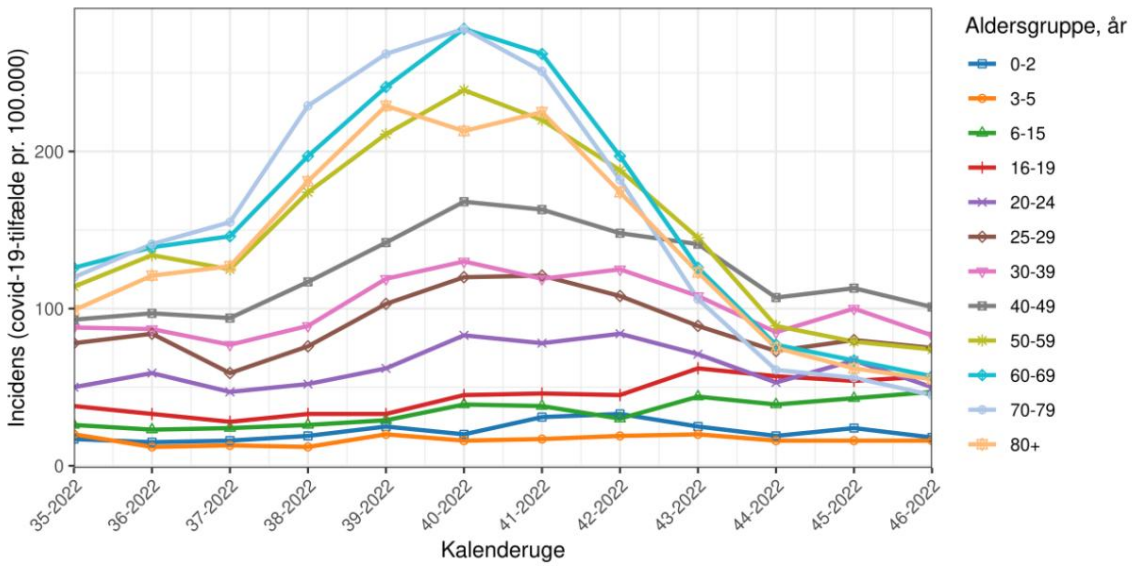

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***Table 9. Covid-19: Age-specific incidence per 100,000 inhabitants, test rate and positive percentage*** **Table 9. Covid** -19: Age-specific incidence per 100,000 inhabitants, test rate and positive percentage

| Covid-19, age groups | Incidence, test rate (%), positive rate | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| 0-2 years | Incidence | 31 | 33 | 25 | 19 | 24 | 18 | |
| | Test rate | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | |
| | Positive percentage | 6.6 | 7.4 | 6.1 | 4.6 | 5.6 | 4.7 | |
| 3-5 years | Incidence | 17 | 19 | 20 | 16 | 16 | 16 | |
| | Test rate | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | |
| | Positive percentage | 5.3 | 6.4 | 8.8 | 6.5 | 6.0 | 6.1 | |
| 6-15 years | Incidence | 38 | 30 | 44 | 39 | 43 | 47 | |
| | Test rate | 0.4 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | |
| | Positive percentage | 11.0 | 13.0 | 17.0 | 16.0 | 16.0 | 17.0 | |
| 16-19 years | Incidence | 46 | 45 | 62 | 57 | 54 | 57 | |
| | Test rate | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | |
| | Positive percentage | 12.0 | 16.0 | 21.0 | 19.0 | 16.0 | 19.0 | |
| 20-24 years | Incidence | 78 | 84 | 71 | 53 | 67 | 50 | |
| | Test rate | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | |
| | Positive percentage | 14.0 | 16.0 | 15.0 | 14.0 | 16.0 | 13.0 | |
| 25-29 years | Incidence | 121 | 108 | 89 | 73 | 80 | 75 | |
| | Test rate | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | |
| | Positive percentage | 17.0 | 17.0 | 16.0 | 14.0 | 16.0 | 16.0 | |
| 30-39 years | Incidence | 119 | 125 | 108 | 85 | 100 | 83 | |
| | Test rate | 0.9 | 0.7 | 0.7 | 0.6 | 0.7 | 0.6 | |
| | Positive percentage | 14.0 | 18.0 | 15.0 | 14.0 | 15.0 | 14.0 | |
| 40-49 years | Incidence | 163 | 148 | 141 | 107 | 113 | 101 | |
| | Test rate | 1.0 | 0.8 | 0.9 | 0.7 | 0.8 | 0.7 | |
| | Positive percentage | 16.0 | 19.0 | 16.0 | 15.0 | 15.0 | 15.0 | |
| 50-59 years | Incidence | 220 | 188 | 145 | 89 | 79 | 74 | |
| | Test rate | 1.2 | 1.0 | 1.0 | 0.8 | 0.8 | 0.7 | |
| | Positive percentage | 18.0 | 18.0 | 15.0 | 11.0 | 9.7 | 10.0 | |
| 60-69 years | Incidence | 262 | 197 | 126 | 77 | 67 | 57 | |
| | Test rate | 1.2 | 1.1 | 1.0 | 0.8 | 0.8 | 0.7 | |
| | Positive percentage | 21.0 | 18.0 | 13.0 | 9.6 | 8.3 | 7.7 | |
| 70-79 years | Incidence | 251 | 182 | 106 | 61 | 56 | 45 | |
| | Test rate | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.7 | |
| | Positive percentage | 22.0 | 18.0 | 12.0 | 8.1 | 7.7 | 6.4 | |
| 80+ years | Incidence | 225 | 174 | 123 | 75 | 62 | 55 | |
| | Test rate | 2.3 | 2.1 | 1.9 | 1.7 | 1.5 | 1.4 | |
| | Positive percentage | 10.0 | 8.3 | 6.6 | 4.4 | 4.1 | 3.8 | |

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## Newly admitted

See also age distribution curves of new admissions on SSI's regional dashboard.

***Figure 5. COVID-19: PCR-positive hospital admissions (purple), PCR-positive patients in hospital on Monday morning (orange) and confirmed (PCR-positive) cases in population (red)***

**Figure 5. Covid-19: Newly admitted, admitted on Monday morning and confirmed cases**

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***Figure 6. COVID-19: Weekly numbers of PCR-positive hospital admissions by age group***

**Figure 6. Covid-19: Weekly numbers of newly admitted patients by age group**

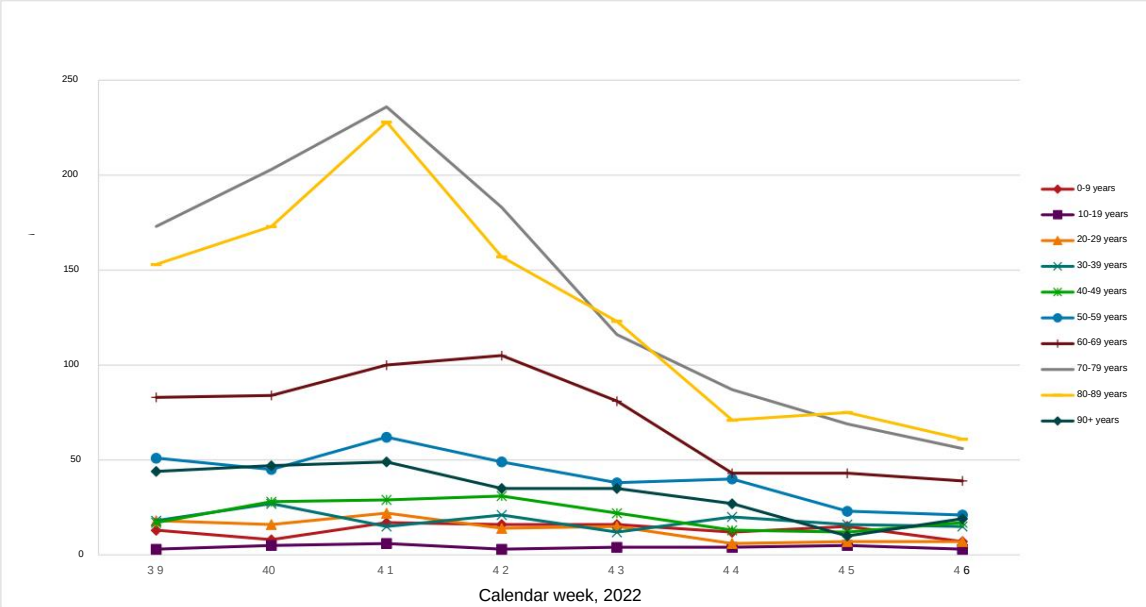

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***Table 10. COVID-19: Proportion and incidence for new hospital admissions by vaccination status and age. Weekly, 2022.***

**Table 10. Covid-19: Proportion and incidence of new hospital admissions by vaccination status and age. Per week, 2022**

| Covid-19 vaccination, new hospital admissions | 2022 | | | Trend week |
|---|---|---|---|---|
| | 44 | 45 | 46 | 44-46 |
| Proportion of new hospitalized booster vaccinated after 15 September 2022, +50-year-olds (%) | 42 | 44 | 58 | |
| Proportion of new hospital admissions, unvaccinated or last vaccinated before 15 September, +50-year-olds (%) | 59 | 56 | 42 | |
| Proportion of new hospitalized booster vaccinated after 15 September 2022, +85-year-olds (%) | 47 | 51 | 66 | |
| Proportion of new hospital admissions, unvaccinated or last vaccinated before 15 September, +85-year-olds (%) | 53 | 49 | 34 | |
| New hospital admissions per 100,000, booster vaccinated after 15 September 2022, aged +50 New hospital admissions per | 8 | 6 | 7 | |
| 100,000, unvaccinated or last vaccinated before 15 September, aged +50 New hospital admissions per 100,000, booster vaccinated | 18 | 15 | 12 | |
| after 15 September 2022, +85-year-olds New hospital admissions per 100,000, unvaccinated or last vaccinated before September 15, +85- | 27 | 22 | 33 | |
| year-olds | 115 | 94 | 88 | |

The following figures and tables in this section are updated retrospectively.

***Figure 7. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19 (red), admission possibly partly because of COVID-19***

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***(orange), or admission because of other causes than COVID-19 (green), June 1st 2020 to November 6 th 2022***

**Figure 7. Covid-19: The proportion of new admissions with a positive SARS-CoV-2 sample. Hospitalization due to covid-19, hospitalization where covid-19 may have played a role, or hospitalization due to conditions other than covid-19, 1 June 2020 to 6 November 2022**

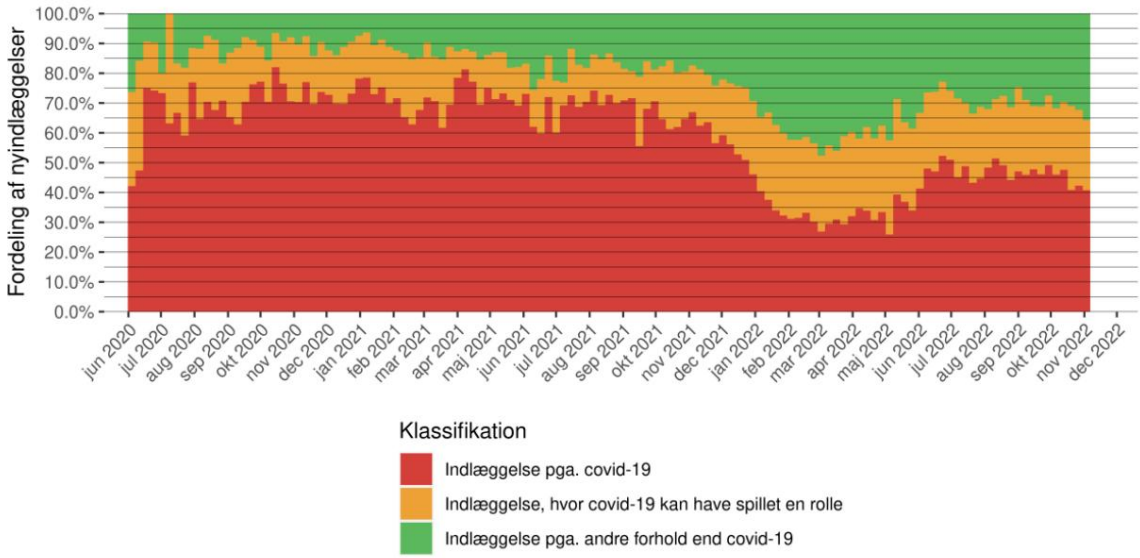


***Table 11. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19, admission possibly partly because of COVID-19, or admission because of other causes than COVID-19***

**Table 11. Covid-19: The proportion of new admissions with a positive SARS-CoV-2 sample. Hospitalization due to covid-19, hospitalization where covid-19 may have played a role, or hospitalization due to conditions other than covid-19**

| Diagnosis | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 39 | 40 | 41 | 42 | 43 | 44 | 39-44 |
| Hospitalization due to covid-19 | 49 | 46 | 48 | 41 | 42 | 41 | |
| Hospitalization where covid-19 may have played a role | 23 | 22 | 23 | 28 | 25 | 24 | |
| Hospitalization due to conditions other than covid-19 | 27 | 32 | 30 | 31 | 32 | 36 | |

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***Figure 8. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19 (red), admission possibly partly because of COVID-19 (orange), or admission because of other causes than COVID-19 (green). By age group, June 1st 2020 to November 6th 2022***

**Figure 8. Covid-19: The proportion of new admissions with a positive SARS-CoV-2 sample. Hospitalization due to covid-19, hospitalization where covid-19 may have played a role, or hospitalization due to conditions other than covid-19, broken down by age group, 1 June 2020 to 6 November 2022**

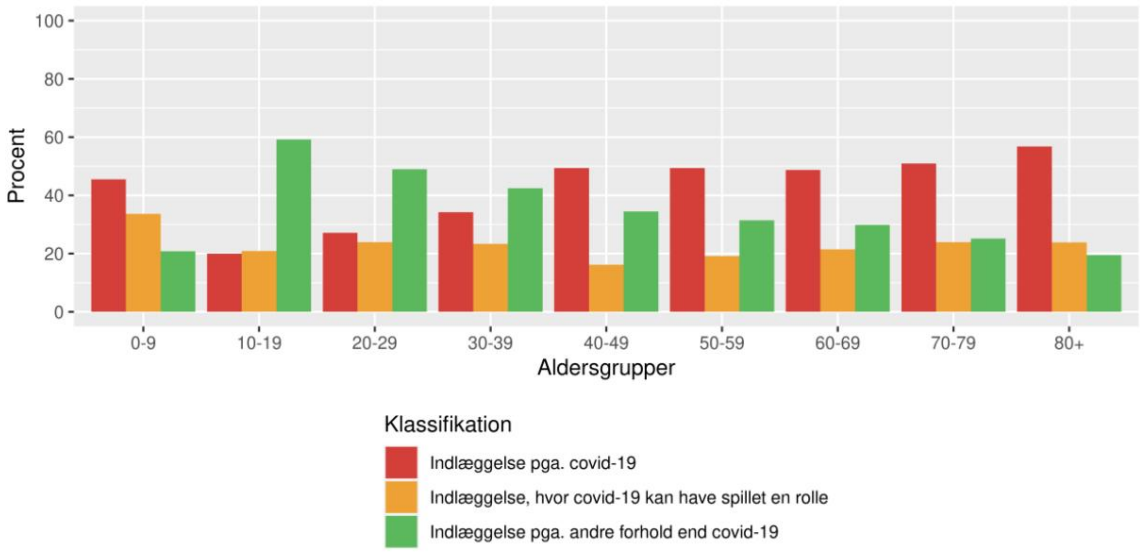

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***Table 12. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19 (red), admission possibly partly because of COVID-19 (orange), or admission because of other causes than COVID-19 (green). By age groups 0- 59 and 60+ years old***

**Table 12. Covid-19: The proportion of new admissions with positive SARS-CoV-2 samples. Hospitalization due to covid-19, hospitalization where covid-19 may have played a role, or hospitalization due to conditions other than covid-19. Divided into the age groups 0-59 and 60+**

| Diagnosis/age groups | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 39 | 40 | 41 | 42 | 43 | 44 | 39-44 |
| **0-59 year olds** | | | | | | | |
| Hospitalization due to covid-19 | 36.1 | 32.3 | 36.1 | 24.6 | 35.8 | 28.0 | |
| Hospitalization where covid-19 may have played a role | 28.6 | 23.6 | 17 | 26.9 | 20.8 | 24.7 | |
| Hospitalization due to conditions other than covid-19 | 35.3 | 44.1 | 46.9 | 48.5 | 43.4 | 47.3 | |
| **60+ year olds** | | | | | | | |
| Hospitalization due to covid-19 | 52.6 | 49.4 | 50.4 | 45.2 | 44.2 | 46.0 | |
| Hospitalization where covid-19 may have played a role | 21.9 | 21.9 | 24.1 | 28.4 | 26.8 | 23.0 | |
| Hospitalization due to conditions other than covid-19 | 25.4 | 28.7 | 25.5 | 26.3 | 29.0 | 31.0 | |

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## SARS-CoV-2 variants

Sequences from the Danish positive covid-19 samples can be seen here:

https://www.covid19genomics.dk/home

***Figure 9. COVID-19: The 10 most frequently observed (sub)variants based on whole genome sequencing data Figure 9. Covid-19: The 10 most frequently observed (sub)variants based on whole genome sequencing data***

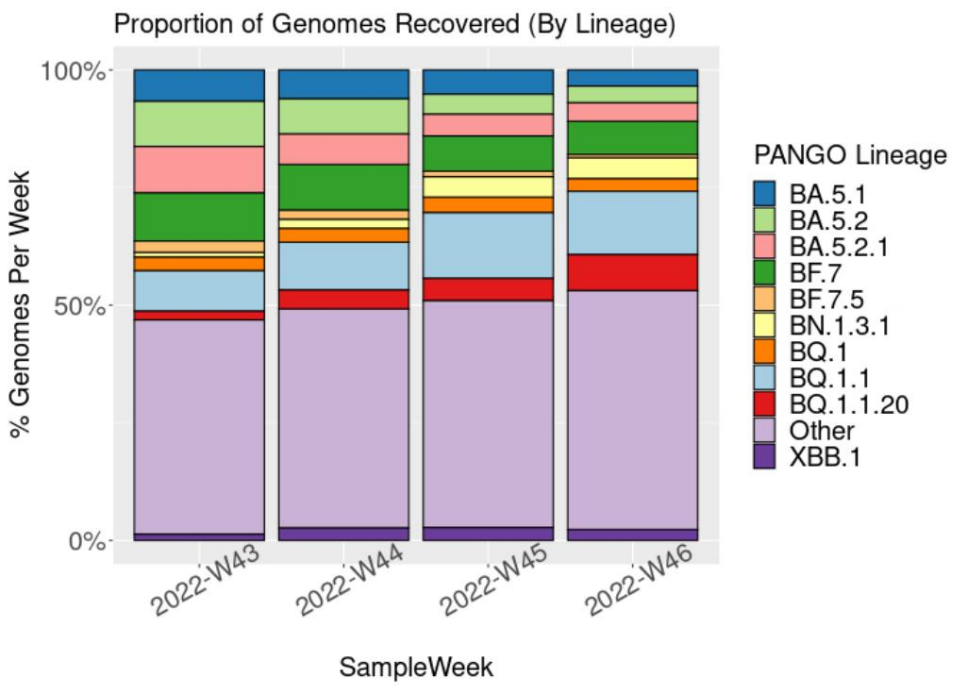

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***Table 13. COVID-19: The most frequently observed sublineages grouped by overall lineage based on whole-genome sequencing data for the last four weeks, 2022***

***Table 13. Covid-19: Observed variants grouped by overall lineage found by WGS in the last 4 weeks, 2022***

| Observed variants grouped by overall lineage found by WGS in the past 4 weeks | | | | | |
|---|---|---|---|---|---|
| **Lineage** | **WHO** | **43** | **44** | **45** | **46** |
| BA.5* | Omicron | 2670 (76.24%) | 1937 (65.75%) | 1621 (53.41%) | 743 (49.24%) |
| BQ.1.1* | Omicron | 497 (14.19%) | 594 (20.16%) | 802 (26.43%) | 433 (28.69%) |
| BA.2.75* | Omicron | 131 (3.74%) | 202 (6.86%) | (11.86%) | 203 (13.45%) |
| XBB* | Recombinant | 63 (1.80%) | 106 (3.60%) | (4.02%) | 55 (3.64%) |
| BA.4* | Omicron | 103 (2.94%) | 67 (2.27%) | 37 (1.22%) | 23 (1.52%) |
| BA.2* | Omicron | 18 (0.51%) | 20 (0.68%) | (1.19%) | |
| Other | - | 20 (0.57%) | 20 (0.68%) | | |
| Total | | 3502 | 2946 | 3035 | 1509 |

Note to table: Number of variants may change as more samples are sequenced and included in the table. The latest week's numbers are incomplete and must be interpreted with caution.

*indicates variant including its sub-variants. However, BA.5* does not include BQ.1.1* and BA.2* does not include BA.2.75*.

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***Table 14. COVID-19: The most frequently observed sub(variants) based on whole-genome sequencing data for the latest four weeks, 2022***

***Table 14. Covid-19: The most frequently observed (sub)variants based on whole genome sequencing data in the past four weeks, 2022***

| The most frequently observed (sub)variants based on whole genome sequencing data in the past 4 w | | | | | |
|---|---|---|---|---|---|
| Lineage | WHO | 43 | 44 | 45 | 46 |
| BQ.1.1 | Omicron | 257 (7.34%) | 299 (10.15%) | 424 (13.97%) | 198 (13.12%) |
| BF.7 | Omicron | 372 (10.62%) | 286 (9.71%) | 228 (7.51%) | 114 (7.55%) |
| BA.5.1 | Omicron | 227 (6.48%) | 181 (6.14%) | 157 (5.17%) | 54 (3.58%) |
| BQ.1.1.20 | Omicron | 51 (1.46%) | 119 (4.04%) | 144 (4.74%) | 101 (6.69%) |
| BA.5.2.1 | Omicron | 361 (10.31%) | 191 (6.48%) | 140 (4.61%) | 63 (4.17%) |
| BN.1.3.1 | Omicron | 34 (0.97%) | 57 (1.93%) | 132 (4.35%) | 67 (4.44%) |
| BA.5.2 | Omicron | 357 (10.19%) | 221 (7.50%) | 129 (4.25%) | 57 (3.78%) |
| BQ.1 | Omicron | 117 (3.34%) | 86 (2.92%) | 99 (3.26%) | 40 (2.65%) |
| XBB.1 | Recombinant | 44 (1.26%) | 78 (2.65%) | 83 (2.73%) | 29 (1.92%) |
| BN.1.4 | Omicron | 15 (0.43%) | 33 (1.12%) | 61 (2.01%) | 42 (2.78%) |
| BA.5.11 | Omicron | 24 (0.69%) | 38 (1.29%) | 59 (1.94%) | 63 (4.17%) |
| BF.5 | Omicron | 60 (1.71%) | 44 (1.49%) | 54 (1.78%) | 18 (1.19%) |
| BF.14 | Omicron | 51 (1.46%) | 54 (1.83%) | 44 (1.45%) | 13 (0.86%) |
| BN.1.2 | Omicron | 16 (0.46%) | 11 (0.37%) | 41 (1.35%) | 17 (1.13%) |
| BA.4.6 | Omicron | 63 (1.80%) | 41 (1.39%) | 40 (1.32%) | 19 (1.26%) |
| BF.7.5 | Omicron | 87 (2.48%) | 57 (1.93%) | 36 (1.19%) | 10 (0.66%) |
| BA.5.2.6 | Omicron | 58 (1.66%) | 45 (1.53%) | 33 (1.09%) | 21 (1.39%) |
| BN.1.3 | Omicron | 14 (0.40%) | 19 (0.64%) | 33 (1.09%) | 15 (0.99%) |
| BQ.1.26 | Omicron | 26 (0.74%) | 29 (0.98%) | 33 (1.09%) | 16 (1.06%) |
| BQ.1.18 | Omicron | 23 (0.66%) | 31 (1.05%) | 32 (1.05%) | 31 (2.05%) |
| BA.5.2.20 | Omicron | 37 (1.06%) | 46 (1.56%) | 31 (1.02%) | 11 (0.73%) |
| BQ.1.11 | Omicron | 17 (0.49%) | 18 (0.61%) | 31 (1.02%) | 17 (1.13%) |
| BQ.1.2 | Omicron | 6 (0.17%) | 20 (0.68%) | 29 (0.96%) | 9 (0.60%) |
| BQ.1.8 | Omicron | 47 (1.34%) | 31 (1.05%) | 29 (0.96%) | 14 (0.93%) |
| BA.5.9 | Omicron | 39 (1.11%) | 43 (1.46%) | 28 (0.92%) | 9 (0.60%) |
| BA.5 | Omicron | 45 (1.28%) | 42 (1.43%) | 27 (0.89%) | 17 (1.13%) |
| BF.11 | Omicron | 6 (0.17%) | 11 (0.37%) | 26 (0.86%) | 2 (0.13%) |
| CL.1 | Omicron | 11 (0.31%) | 12 (0.41%) | 24 (0.79%) | 9 (0.60%) |
| BF.7.4 | Omicron | 34 (0.97%) | 19 (0.64%) | 22 (0.72%) | 3 (0.20%) |
| BQ.1.10 | Omicron | 16 (0.46%) | 15 (0.51%) | 21 (0.69%) | 7 (0.46%) |
| BA.5.2.34 | Omicron | 3 (0.09%) | 12 (0.41%) | 20 (0.66%) | 8 (0.53%) |

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|---|---|---|---|---|---|
| BQ.1.5 | Omicron | 20 (0.57%) | 19 (0.64%) | 19 (0.63%) | 6 (0.40%) |
| BF.11.4 | Omicron | 18 (0.51%) | 14 (0.48%) | 18 (0.59%) | 6 (0.40%) |
| BQ.1.10.1 | Omicron | 23 (0.66%) | 13 (0.44%) | 17 (0.56%) | 17 (1.13%) |
| BQ.1.1.10 | Omicron | 11 (0.31%) | 15 (0.51%) | 16 (0.53%) | 5 (0.33%) |
| BA.4 | Omicron | 9 (0.26%) | 8 (0.27%) | 15 (0.49%) | 7 (0.46%) |
| BN.1 | Omicron | 11 (0.31%) | 4 (0.14%) | 15 (0.49%) | 19 (1.26%) |
| BQ.1.3 | Omicron | 11 (0.31%) | 9 (0.31%) | 15 (0.49%) | 10 (0.66%) |
| XBB.2 | Recombinant | 6 (0.17%) | 15 (0.51%) | 15 (0.49%) | 13 (0.86%) |
| BA.5.1.23 | Omicron | 10 (0.29%) | 6 (0.20%) | 14 (0.46%) | 4 (0.27%) |
| BQ.1.1.2 | Omicron | 9 (0.26%) | 2 (0.07%) | 14 (0.46%) | 5 (0.33%) |
| XBB | Recombinant | 4 (0.11%) | 6 (0.20%) | 14 (0.46%) | 6 (0.40%) |
| BA.2.3.20 | Omicron | 11 (0.31%) | 2 (0.07%) | 13 (0.43%) | 4 (0.27%) |
| BA.5.2.13 | Omicron | 38 (1.09%) | 7 (0.24%) | 13 (0.43%) | 3 (0.20%) |
| BQ.1.1.23 | Omicron | 3 (0.09%) | 2 (0.07%) | 13 (0.43%) | 4 (0.27%) |
| CH.1.1 | Omicron | 1 (0.03%) | 9 (0.31%) | 13 (0.43%) | 12 (0.80%) |
| BA.5.1.10 | Omicron | 37 (1.06%) | 24 (0.81%) | 12 (0.40%) | 6 (0.40%) |
| BF.7.6 | Omicron | 27 (0.77%) | 21 (0.71%) | 12 (0.40%) | 1 (0.07%) |
| BN.1.5 | Omicron | 5 (0.14%) | 11 (0.37%) | 12 (0.40%) | 3 (0.20%) |
| BQ.1.1.4 | Omicron | 10 (0.29%) | 9 (0.31%) | 12 (0.40%) | 4 (0.27%) |
| BF.11.1 | Omicron | 2 (0.06%) | 1 (0.03%) | 11 (0.36%) | 6 (0.40%) |
| XAY.2 | Recombinant | 5 (0.14%) | 6 (0.20%) | 11 (0.36%) | 10 (0.66%) |
| BA.5.2.27 | Omicron | 3 (0.09%) | 1 (0.03%) | 10 (0.33%) | 1 (0.07%) |
| BE.1.1 | Omicron | 52 (1.48%) | 26 (0.88%) | 10 (0.33%) | 1 (0.07%) |
| BQ.1.1.18 | Omicron | 8 (0.23%) | 9 (0.31%) | 10 (0.33%) | 3 (0.20%) |
| BQ.1.1.5 | Omicron | 10 (0.29%) | 3 (0.10%) | 10 (0.33%) | 8 (0.53%) |
| BQ.1.23 | Omicron | 7 (0.20%) | 6 (0.20%) | 10 (0.33%) | 4 (0.27%) |
| CQ.2 | Omicron | 0 (0.00%) | 3 (0.10%) | 10 (0.33%) | 3 (0.20%) |
| XBB.1.4 | Recombinant | 7 (0.20%) | 5 (0.17%) | 10 (0.33%) | 4 (0.27%) |
| BA.5.2.30 | Omicron | 9 (0.26%) | 7 (0.24%) | 9 (0.30%) | 4 (0.27%) |
| BF.7.2 | Omicron | 24 (0.69%) | 13 (0.44%) | 9 (0.30%) | 8 (0.53%) |
| BQ.1.1.1 | Omicron | 3 (0.09%) | 5 (0.17%) | 9 (0.30%) | 2 (0.13%) |
| BQ.1.1.15 | Omicron | 13 (0.37%) | 5 (0.17%) | 9 (0.30%) | 4 (0.27%) |
| BF.26 | Omicron | 2 (0.06%) | 9 (0.31%) | 8 (0.26%) | 1 (0.07%) |
| BN.1.2.1 | Omicron | 0 (0.00%) | 2 (0.07%) | 8 (0.26%) | 7 (0.46%) |
| CR.1 | Omicron | 3 (0.09%) | 3 (0.10%) | 8 (0.26%) | 4 (0.27%) |
| BA.4.1 | Omicron | 17 (0.49%) | 4 (0.14%) | 7 (0.23%) | 0 (0.00%) |
| BA.5.2.35 | Omicron | 8 (0.23%) | 10 (0.34%) | 7 (0.23%) | 0 (0.00%) |
| BQ.1.1.24 | Omicron | 0 (0.00%) | 5 (0.17%) | 7 (0.23%) | 4 (0.27%) |
| BS.1.1 | Omicron | 2 (0.06%) | 1 (0.03%) | 7 (0.23%) | 4 (0.27%) |
| CJ.1 | Omicron | 6 (0.17%) | 14 (0.48%) | 7 (0.23%) | 3 (0.20%) |
| CK.2.1.1 | Omicron | 15 (0.43%) | 8 (0.27%) | 7 (0.23%) | 8 (0.53%) |
| CM.2 | Omicron | 1 (0.03%) | 6 (0.20%) | 7 (0.23%) | 10 (0.66%) |
| BA.5.1.22 | Omicron | 14 (0.40%) | 12 (0.41%) | 6 (0.20%) | 2 (0.13%) |

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| | | | | | |
|---|---|---|---|---|---|
| BF.11.2 | Omicron | 9 (0.26%) | 12 (0.41%) | 6 (0.20%) | 5 (0.33%) |
| BF.27 | Omicron | 8 (0.23%) | 4 (0.14%) | 6 (0.20%) | 4 (0.27%) |
| BF.7.5.1 | Omicron | 6 (0.17%) | 6 (0.20%) | 6 (0.20%) | 0 (0.00%) |
| BL.5 | Omicron | 0 (0.00%) | 1 (0.03%) | 6 (0.20%) | 1 (0.07%) |
| BQ.1.1.7 | Omicron | 9 (0.26%) | 6 (0.20%) | 6 (0.20%) | 1 (0.07%) |
| BQ.1.17 | Omicron | 6 (0.17%) | 14 (0.48%) | 6 (0.20%) | 5 (0.33%) |
| BQ.1.4 | Omicron | 12 (0.34%) | 13 (0.44%) | 6 (0.20%) | 2 (0.13%) |
| BR.1 | Omicron | 5 (0.14%) | 1 (0.03%) | 6 (0.20%) | 0 (0.00%) |
| CP.4 | Omicron | 8 (0.23%) | 9 (0.31%) | 6 (0.20%) | 0 (0.00%) |
| BA.2.75.2 | Omicron | 4 (0.11%) | 16 (0.54%) | 5 (0.16%) | 5 (0.33%) |
| BA.5.1.5 | Omicron | 14 (0.40%) | 6 (0.20%) | 5 (0.16%) | 0 (0.00%) |
| BA.5.2.36 | Omicron | 10 (0.29%) | 9 (0.31%) | 5 (0.16%) | 1 (0.07%) |
| BE.4.1 | Omicron | 8 (0.23%) | 9 (0.31%) | 5 (0.16%) | 6 (0.40%) |
| BF.11.5 | Omicron | 4 (0.11%) | 6 (0.20%) | 5 (0.16%) | 0 (0.00%) |
| BM.1.1.3 | Omicron | 4 (0.11%) | 7 (0.24%) | 5 (0.16%) | 1 (0.07%) |
| BQ.1.1.13 | Omicron | 13 (0.37%) | 9 (0.31%) | 5 (0.16%) | 4 (0.27%) |
| BQ.1.1.3 | Omicron | 4 (0.11%) | 1 (0.03%) | 5 (0.16%) | 6 (0.40%) |
| BT.2 | Omicron | 14 (0.40%) | 4 (0.14%) | 5 (0.16%) | 0 (0.00%) |
| BA.4.1.9 | Omicron | 1 (0.03%) | 3 (0.10%) | 4 (0.13%) | 7 (0.46%) |
| BA.5.1.3 | Omicron | 14 (0.40%) | 3 (0.10%) | 4 (0.13%) | 1 (0.07%) |
| BA.5.2.21 | Omicron | 10 (0.29%) | 5 (0.17%) | 4 (0.13%) | 6 (0.40%) |
| BA.5.2.25 | Omicron | 6 (0.17%) | 13 (0.44%) | 4 (0.13%) | 0 (0.00%) |
| BA.5.2.26 | Omicron | 4 (0.11%) | 5 (0.17%) | 4 (0.13%) | 2 (0.13%) |
| BA.5.2.3 | Omicron | 20 (0.57%) | 11 (0.37%) | 4 (0.13%) | 1 (0.07%) |
| BA.5.5 | Omicron | 7 (0.20%) | 0 (0.00%) | 4 (0.13%) | 0 (0.00%) |
| BF.15 | Omicron | 3 (0.09%) | 3 (0.10%) | 4 (0.13%) | 1 (0.07%) |
| BL.1 | Omicron | 1 (0.03%) | 4 (0.14%) | 4 (0.13%) | 1 (0.07%) |
| BQ.1.22 | Omicron | 1 (0.03%) | 0 (0.00%) | 4 (0.13%) | 1 (0.07%) |
| BQ.1.25 | Omicron | 4 (0.11%) | 1 (0.03%) | 4 (0.13%) | 1 (0.07%) |
| CM.5 | Omicron | 0 (0.00%) | 3 (0.10%) | 4 (0.13%) | 2 (0.13%) |
| DF.1 | Omicron | 3 (0.09%) | 3 (0.10%) | 4 (0.13%) | 15 (0.99%) |
| BA.4.6.5 | Omicron | 2 (0.06%) | 0 (0.00%) | 3 (0.10%) | 0 (0.00%) |
| BA.5.1.17 | Omicron | 3 (0.09%) | 2 (0.07%) | 3 (0.10%) | 2 (0.13%) |
| BE.7 | Omicron | 1 (0.03%) | 0 (0.00%) | 3 (0.10%) | 4 (0.27%) |
| BM.4.1.1 | Omicron | 0 (0.00%) | 3 (0.10%) | 3 (0.10%) | 0 (0.00%) |
| BQ.1.13 | Omicron | 0 (0.00%) | 0 (0.00%) | 3 (0.10%) | 1 (0.07%) |
| BQ.1.6 | Omicron | 0 (0.00%) | 0 (0.00%) | 3 (0.10%) | 3 (0.20%) |
| CN.1 | Omicron | 0 (0.00%) | 1 (0.03%) | 3 (0.10%) | 9 (0.60%) |
| DB.1 | Omicron | 1 (0.03%) | 4 (0.14%) | 3 (0.10%) | 3 (0.20%) |
| XBD | Recombinant | 1 (0.03%) | 3 (0.10%) | 3 (0.10%) | 0 (0.00%) |
| XBF | Recombinant | 0 (0.00%) | 1 (0.03%) | 3 (0.10%) | 2 (0.13%) |
| BA.2.75.1 | Omicron | 0 (0.00%) | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) |
| BA.5.1.12 | Omicron | 6 (0.17%) | 9 (0.31%) | 2 (0.07%) | 1 (0.07%) |

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|---|---|---|---|---|---|
| BA.5.1.18 | Omicron | 1 (0.03%) | 4 (0.14%) | 2 (0.07%) | 0 (0.00%) |
| BA.5.1.30 | Omicron | 12 (0.34%) | 4 (0.14%) | 2 (0.07%) | 5 (0.33%) |
| BA.5.2.29 | Omicron | 12 (0.34%) | 3 (0.10%) | 2 (0.07%) | 4 (0.27%) |
| BA.5.2.37 | Omicron | 1 (0.03%) | 2 (0.07%) | 2 (0.07%) | 1 (0.07%) |
| BA.5.2.7 | Omicron | 2 (0.06%) | 3 (0.10%) | 2 (0.07%) | 2 (0.13%) |
| BA.5.2.9 | Omicron | 14 (0.40%) | 4 (0.14%) | 2 (0.07%) | 1 (0.07%) |
| BA.5.5.1 | Omicron | 2 (0.06%) | 0 (0.00%) | 2 (0.07%) | 0 (0.00%) |
| BA.5.6.3 | Omicron | 6 (0.17%) | 0 (0.00%) | 2 (0.07%) | 1 (0.07%) |
| BE.1.2.1 | Omicron | 1 (0.03%) | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) |
| BE.4.1.1 | Omicron | 0 (0.00%) | 0 (0.00%) | 2 (0.07%) | 0 (0.00%) |
| BE.9 | Omicron | 2 (0.06%) | 0 (0.00%) | 2 (0.07%) | 1 (0.07%) |
| BF.10 | Omicron | 9 (0.26%) | 7 (0.24%) | 2 (0.07%) | 1 (0.07%) |
| BF.7.3 | Omicron | 1 (0.03%) | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) |
| BF.7.7 | Omicron | 0 (0.00%) | 0 (0.00%) | 2 (0.07%) | 2 (0.13%) |
| BN.3.1 | Omicron | 3 (0.09%) | 1 (0.03%) | 2 (0.07%) | 3 (0.20%) |
| BQ.1.1.8 | Omicron | 2 (0.06%) | 1 (0.03%) | 2 (0.07%) | 1 (0.07%) |
| BQ.1.14 | Omicron | 0 (0.00%) | 3 (0.10%) | 2 (0.07%) | 0 (0.00%) |
| BR.2 | Omicron | 0 (0.00%) | 1 (0.03%) | 2 (0.07%) | 2 (0.13%) |
| CITY.1 | Omicron | 2 (0.06%) | 4 (0.14%) | 2 (0.07%) | 3 (0.20%) |
| CB.1 | Omicron | 10 (0.29%) | 6 (0.20%) | 2 (0.07%) | 1 (0.07%) |
| CG.1 | Omicron | 7 (0.20%) | 4 (0.14%) | 2 (0.07%) | 4 (0.27%) |
| CK.1 | Omicron | 1 (0.03%) | 1 (0.03%) | 2 (0.07%) | 2 (0.13%) |
| DC.1 | Omicron | 4 (0.11%) | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) |
| BA.2 | Omicron | 1 (0.03%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BA.2.75 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BA.2.75.5 | Omicron | 2 (0.06%) | 2 (0.07%) | 1 (0.03%) | 1 (0.07%) |
| BA.4.1.8 | Omicron | 2 (0.06%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.1.2 | Omicron | 2 (0.06%) | 4 (0.14%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.1.25 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 1 (0.07%) |
| BA.5.1.9 | Omicron | 1 (0.03%) | 3 (0.10%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.2.18 | Omicron | 2 (0.06%) | 7 (0.24%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.2.2 | Omicron | 0 (0.00%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.2.28 | Omicron | 2 (0.06%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.2.31 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.2.41 | Omicron | 6 (0.17%) | 3 (0.10%) | 1 (0.03%) | 0 (0.00%) |
| BA.5.3.1 | Omicron | 0 (0.00%) | 1 (0.03%) | 1 (0.03%) | 3 (0.20%) |
| BA.5.6 | Omicron | 3 (0.09%) | 1 (0.03%) | 1 (0.03%) | 1 (0.07%) |
| BE.6 | Omicron | 3 (0.09%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BE.8 | Omicron | 3 (0.09%) | 3 (0.10%) | 1 (0.03%) | 0 (0.00%) |
| BF.7.11 | Omicron | 2 (0.06%) | 2 (0.07%) | 1 (0.03%) | 2 (0.13%) |
| BF.7.13.2 | Omicron | 6 (0.17%) | 3 (0.10%) | 1 (0.03%) | 0 (0.00%) |
| BF.7.4.1 | Omicron | 3 (0.09%) | 0 (0.00%) | 1 (0.03%) | 1 (0.07%) |
| BF.7.8 | Omicron | 2 (0.06%) | 3 (0.10%) | 1 (0.03%) | 0 (0.00%) |

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|---|---|---|---|---|---|
| BF.8 | Omicron | 3 (0.09%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BN.1.6 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 1 (0.07%) |
| BQ.1.1.22 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BQ.1.1.6 | Omicron | 0 (0.00%) | 2 (0.07%) | 1 (0.03%) | 0 (0.00%) |
| BQ.1.12 | Omicron | 2 (0.06%) | 2 (0.07%) | 1 (0.03%) | 0 (0.00%) |
| BQ.1.16 | Omicron | 0 (0.00%) | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) |
| BQ.1.8.2 | Omicron | 3 (0.09%) | 2 (0.07%) | 1 (0.03%) | 1 (0.07%) |
| BS.1 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BV.1 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BW.1 | Omicron | 1 (0.03%) | 4 (0.14%) | 1 (0.03%) | 0 (0.00%) |
| CM.1 | Omicron | 0 (0.00%) | 2 (0.07%) | 1 (0.03%) | 0 (0.00%) |
| CM.4 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| DB.2 | Omicron | 0 (0.00%) | 0 (0.00%) | 1 (0.03%) | 1 (0.07%) |
| XBC.1 | Recombinant | 0 (0.00%) | 4 (0.14%) | 1 (0.03%) | 4 (0.27%) |
| XBE | Recombinant | 1 (0.03%) | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) |
| BA.2.9 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.4.1.10 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.4.6.1 | Omicron | 4 (0.11%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| BA.4.6.2 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.4.6.3 | Omicron | 0 (0.00%) | 7 (0.24%) | 0 (0.00%) | 0 (0.00%) |
| BA.4.7 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.1.1 | Omicron | 2 (0.06%) | 1 (0.03%) | 0 (0.00%) | 2 (0.13%) |
| BA.5.1.19 | Omicron | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.1.24 | Omicron | 5 (0.14%) | 4 (0.14%) | 0 (0.00%) | 2 (0.13%) |
| BA.5.1.27 | Omicron | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.1.4 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.1.8 | Omicron | 2 (0.06%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.10.1 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.14 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.19 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.22 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.23 | Omicron | 3 (0.09%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.24 | Omicron | 3 (0.09%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.32 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.33 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.2.4 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.3.3 | Omicron | 2 (0.06%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.5.2 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.6.4 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BA.5.8 | Omicron | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| BE.1 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BE.1.1.1 | Omicron | 10 (0.29%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| BE.1.1.2 | Omicron | 10 (0.29%) | 6 (0.20%) | 0 (0.00%) | 1 (0.07%) |

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|---|---|---|---|---|---|
| BE.1.3 | Omicron | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BE.1.4 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BE.2 | Omicron | 1 (0.03%) | 3 (0.10%) | 0 (0.00%) | 0 (0.00%) |
| BE.4 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BF.11.3 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| BF.13 | Omicron | 12 (0.34%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| BF.24 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BF.25 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BF.29 | Omicron | 10 (0.29%) | 6 (0.20%) | 0 (0.00%) | 0 (0.00%) |
| BF.3 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BF.4 | Omicron | 5 (0.14%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BF.6 | Omicron | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| BF.7.1 | Omicron | 2 (0.06%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BF.7.10 | Omicron | 1 (0.03%) | 3 (0.10%) | 0 (0.00%) | 2 (0.13%) |
| BF.7.12 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BF.7.4.2 | Omicron | 5 (0.14%) | 8 (0.27%) | 0 (0.00%) | 0 (0.00%) |
| BF.7.9 | Omicron | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BL.2 | Omicron | 2 (0.06%) | 1 (0.03%) | 0 (0.00%) | 1 (0.07%) |
| BM.1.1 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BN.1.7 | Omicron | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 1 (0.07%) |
| BN.5 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| BQ.1.1.17 | Omicron | 2 (0.06%) | 4 (0.14%) | 0 (0.00%) | 1 (0.07%) |
| BQ.1.1.19 | Omicron | 4 (0.11%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| BQ.1.15 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 4 (0.27%) |
| BQ.1.24 | Omicron | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 2 (0.13%) |
| BR.2.1 | Omicron | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| BU.1 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| CITY.1.1.1 | Omicron | 0 (0.00%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| CA.2 | Omicron | 2 (0.06%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| CA.3 | Omicron | 3 (0.09%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| CA.7 | Omicron | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| CP.1 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| CP.1.3 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| CP.2 | Omicron | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| CP.6 | Omicron | 0 (0.00%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| CQ.1 | Omicron | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| CR.1.1 | Omicron | 1 (0.03%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| DE.2 | Omicron | 6 (0.17%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| DG.1 | Omicron | 0 (0.00%) | 2 (0.07%) | 0 (0.00%) | 0 (0.00%) |
| DH.1 | Omicron | 6 (0.17%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| XAY.1 | Recombinant | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| XAZ | Recombinant | 3 (0.09%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |

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|---|---|---|---|---|---|
| XBB.1.1 | Recombinant | 1 (0.03%) | 1 (0.03%) | 0 (0.00%) | 2 (0.13%) |
| XBB.1.5 | Recombinant | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (0.07%) |
| XBB.3 | Recombinant | 0 (0.00%) | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) |
| XBB.4 | Recombinant | 1 (0.03%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) |
| Total | | 3502 | 2946 | 3035 | 1509 |

Note to table: Number of variants may change when more samples are sequenced and included in the table. The last week's figure is incomplete and must interpreted with reservations.

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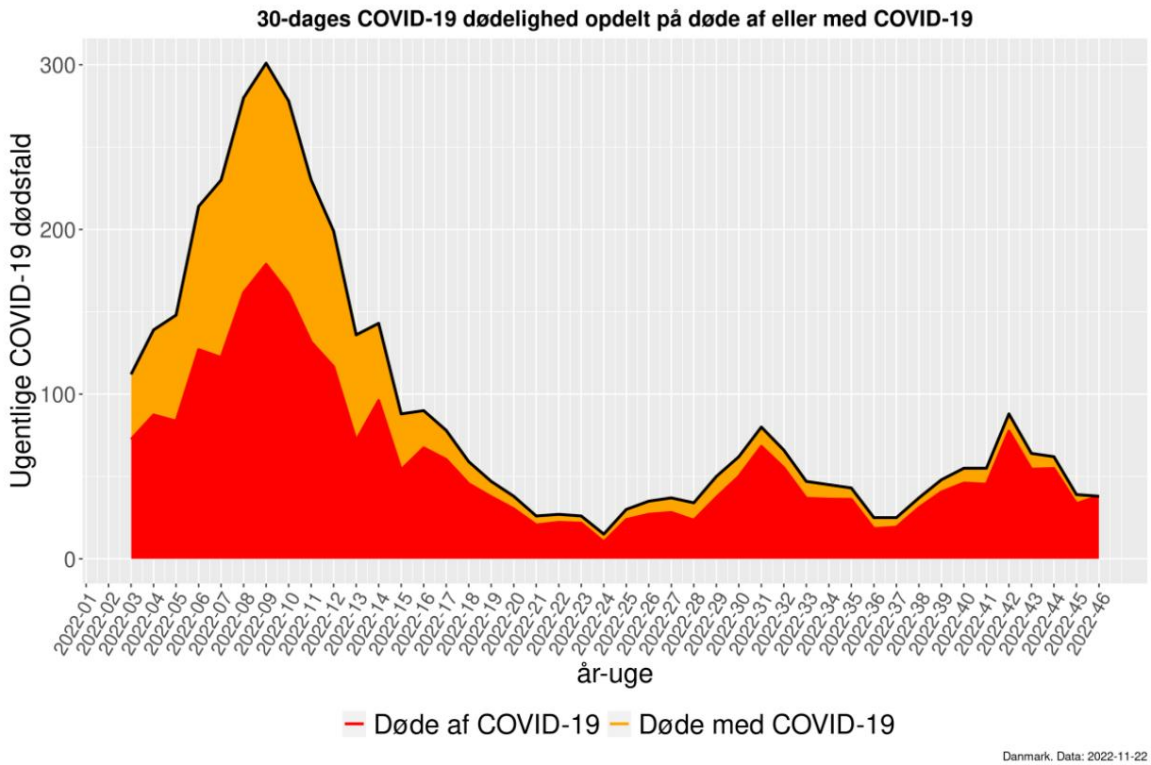
# Mortality

In this section, figures and tables are shown for estimated and validated mortality from and including covid 19.

***Figure 10. COVID-19: Estimated deaths due to or with COVID-19, by week. Calculated number of deaths directly related to COVID-19 infection (red), calculated number of deaths unrelated to COVID-19 infections (orange), 2022***

**Figure 10. Covid-19: Estimated deaths from or with covid-19 (red) and proportion of all covid-19 registered deaths calculated as non-covid-19-related (orange), by week, 2022**




Note: Calculation performed on the basis of a model from the PandemiX Research Center, RUC in collaboration with EuroMOMO, SSI.

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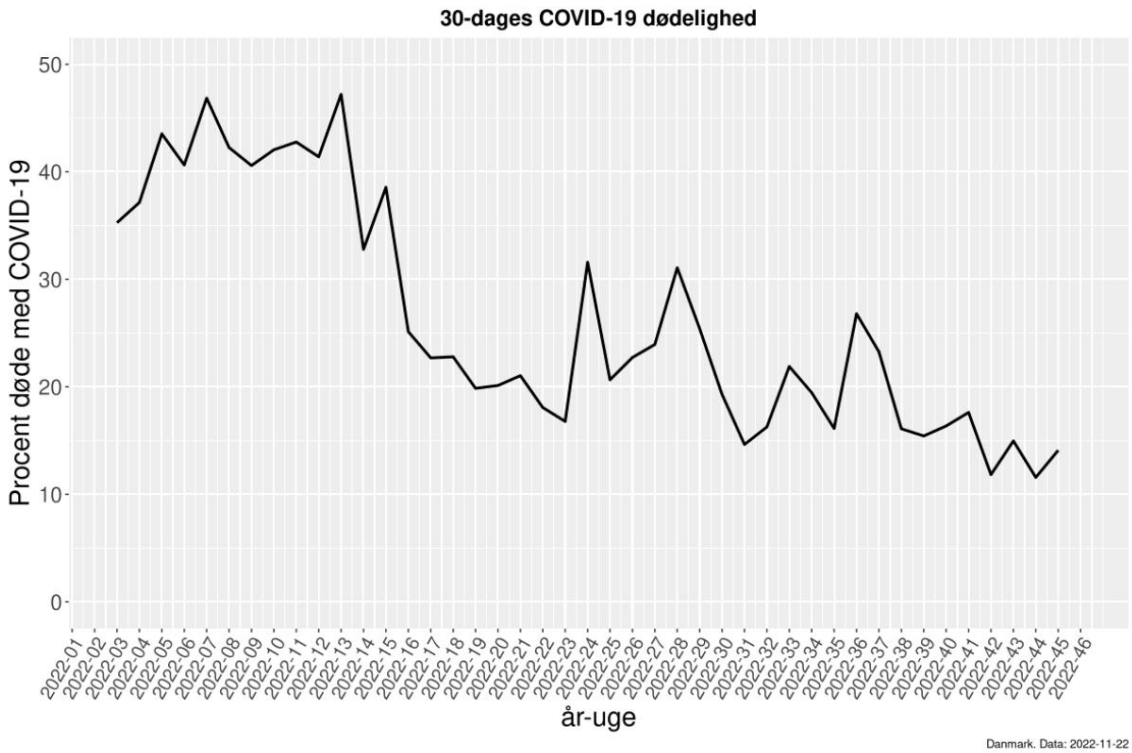
***Figure 11. COVID-19: Estimated proportion of all COVID-19-registered deaths estimated not related to COVID-19, by week, 2022***

**Figure 11. Covid-19: Estimated proportion of all covid-19 registered deaths calculated as non-covid-19 related, by week, 2022**




Note: Calculation performed on the basis of a model from the PandemiX Research Center, RUC in collaboration with EuroMOMO, SSI.

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***Table 15. COVID-19: Estimated deaths with positive SARS-CoV-2 test within 30 days, total. Deaths due to (caused by) COVID-19. Deaths with (ie not caused by) COVID-19. Proportion of deaths with COVID-19***

**Table 15. Covid-19: Estimated deaths with a positive covid-19 PCR test within 30 days, total, deaths "from" and "with" covid-19 and proportion of deaths with covid-19**

| 2022, week | covid-19 PCR test within 30 days, total | Death "of" covid-19 | Death "with" covid-19 | Proportion (%) of deaths "with" covid-19 |
|---|---|---|---|---|
| 34 | 45 | 36 | 9 | 19.5 |
| 35 | 43 | 36 | 7 | 16.1 |
| 36 | 25 | 18 | 7 | 26.8 |
| 37 | 25 | 19 | 6 | 23.3 |
| 38 | 37 | 31 | 6 | 16.1 |
| 39 | 48 | 41 | 7 | 15.4 |
| 40 | 55 | 46 | 9 | 16.4 |
| 41 | 55 | 45 | 10 | 17.6 |
| 42 | 88 | 78 | 10 | 11.8 |
| 43 | 64 | 54 | 10 | 15.0 |
| 44 | 62 | 55 | 7 | 11.6 |
| 45 | 39 | 34 | 5 | 14.1 |
| 46 | 38 | 38 | 0 | -0.3 |

Note: Calculation performed on the basis of a model from the PandemiX Research Center, RUC in collaboration with EuroMOMO, SSI.

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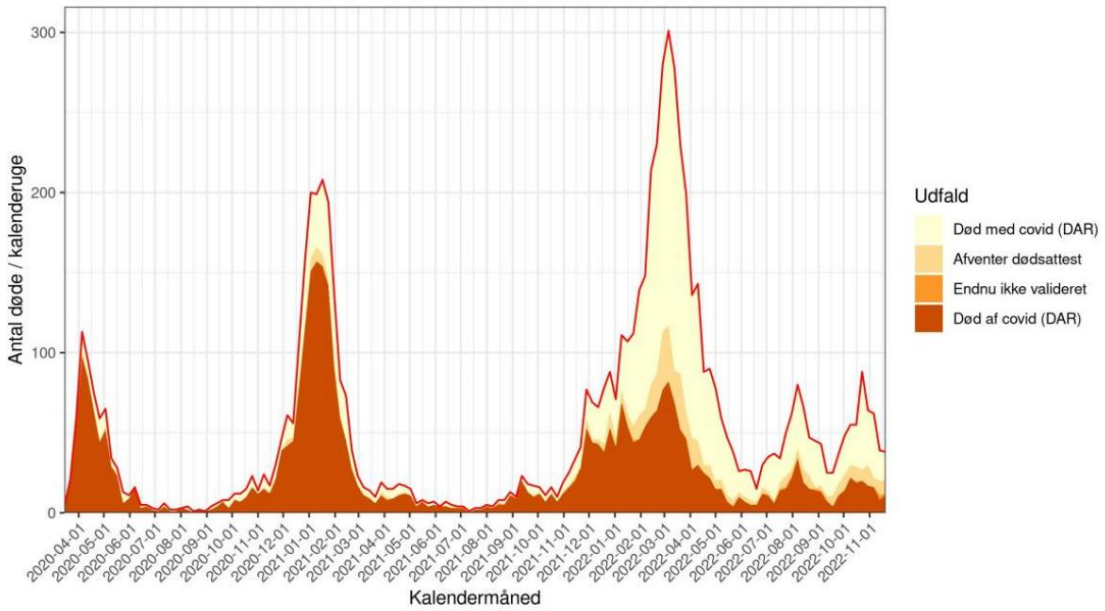
***Figure 12. COVID-19: Deaths by and with COVID-19 based on death certificates (DAR: The Cause of Death Register). Death not related to COVID-19-infection (light), death related to COVID-19-infection (dark), 2020-2022***

**Figure 12. Covid-19: Deaths from and including covid-19 based on death certificates, 2020-2022**




Note: Developed on background of data from The cause of death register (DAR) via The Danish Health Data Agency.

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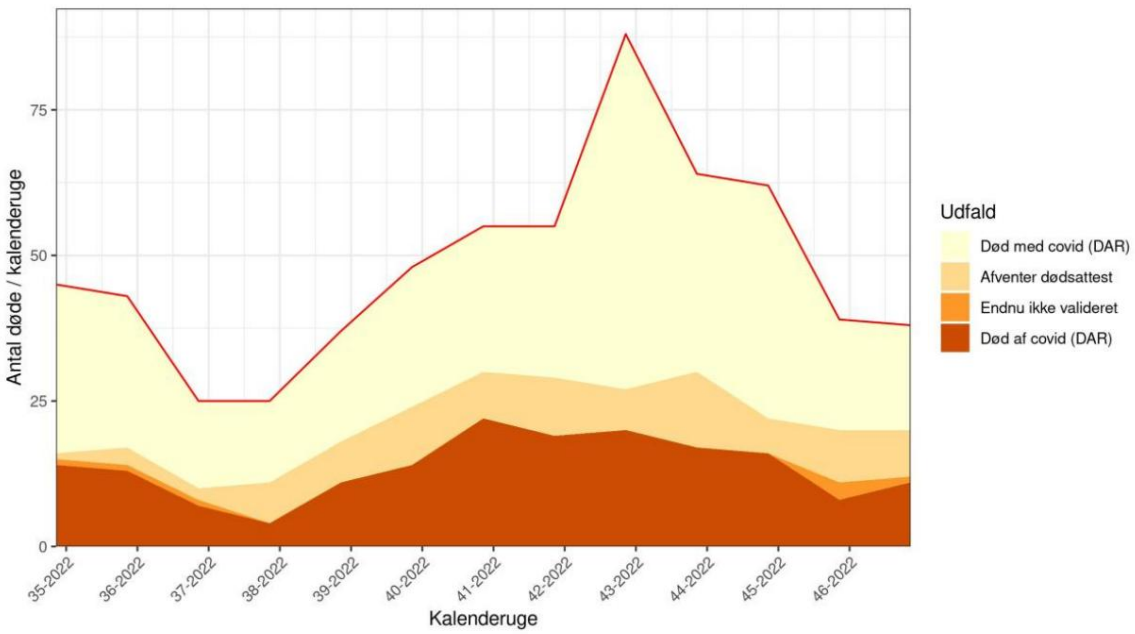
***Figure 13. COVID-19: Deaths by and with COVID-19 based on death certificates (DAR: The Cause of Death Register). Death not related to COVID-19-infection (light), death related to COVID-19-infection (dark), 2022***

**Figure 13. Covid-19: Deaths from and including covid-19 based on death certificates, 2022**




Note: Prepared on the basis of data from the Cause of Death Register (DAR) via the Danish Health Data Agency.

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# Hospital outbreak

***Table 16. COVID-19: Outbreaks at hospitals***

***Table 16. Covid-19: hospital outbreaks***

| Hospital outbreak | 2022 week | | | | | |
|---|---|---|---|---|---|---|
| | 41 | 42 | 43 | 44 | 45 | 46 |
| Number of outbreak reports (out of 12 infection hygiene units) | 5 | 8 | 4 | 5 | 6 | 4 |
| Of this, no outbreaks | 3 | 3 | 3 | 4 | 5 | |
| Of which units with outbreaks | 2 | 5 | 1 | 1 | 1 | |
| Total number of outbreaks | 5 | 9 | 0 | 0 | 1 | 400 |
| Number of major outbreaks (>20 infected, patients and/or staff) | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of medium outbreaks (11 to 20 infected, patients and/or staff) | 0 | 1 | 1 | 0 | 0 | 0 |
| Number of minor outbreaks (ÿ10 infected, patients and/or staff) | 5 | 8 | 0 | 1 | 1 | 0 |

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## Nursing home

Data is updated backwards.

***Table 17. COVID-19 at nursing homes***

**Table 17. Covid-19 at nursing homes**

| Covid-19, nursing home | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|
| | 41 | 42 | 43 44 | | 45 | 46 | 41-46 |
| Confirmed cases among residents | 134 | 134 | 120 | 79 | 71 | 55 | |
| Test rate among residents (%) | 10.0 | 9.4 | 8.2 | 6.8 | 6.2 | 5.4 | |
| Positive percentage among residents | 3.3 | 3.5 | 3.6 | 2.8 | 2.8 | 2.5 | |
| Deaths among confirmed cases | 7 | 20 | 8 | 9 | 9 | 8 | |
| Nursing homes with confirmed cases | 71 | 65 | 58 | 37 | 29 | 37 | |
| Proportion of people who have received boosters since 15 September 2022 Nursing home residents (%) | 85.1 | 85.8 | 86.9 | 87.4 | 87.9 | 88.1 | |

***Table 18. COVID-19 at nursing homes by region***

**Table 18. Covid-19 at nursing homes by region**

| Covid-19, nursing home | Region | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Confirmed cases among residents | The capital | 4 2 | 3 9 | 4 8 | 20 | 2 2 | 2 5 | |
| | Central Jutland | 1 8 | 2 4 | 20 | 1 8 | 6 | 1 0 | |
| | Northern Jutland | 3 2 | 2 4 | 2 5 | 1 3 | 1 0 | 6 | |
| | Zealand | 1 6 | 7 | 7 | 6 | 8 | 5 | |
| | Southern Denmark | 2 6 | 40 | 20 | 2 2 | 2 5 | 9 | |
| Test rate among residents (%) | The capital | 10.1 | 8.7 | 9.1 | 7.0 | 7.2 | 6.5 | |
| | Central Jutland | 6.0 | 5.0 | 5.4 | 3.8 | 2.8 | 3.1 | |
| | Northern Jutland | 10.7 | 12.5 | 9.8 | 10.1 | 10.3 | 8.6 | |
| | Zealand | 11.2 | 9.4 | 6.3 | 7.6 | 4.3 | 3.9 | |
| | Southern Denmark | 13.0 | 13.4 | 10.0 | 7.5 | 7.1 | 5.7 | |
| Positive percentage among residents | The capital | 3.4 | 3.6 | 4.3 | 2.3 | 2.5 | 3.1 | |
| | Central Jutland | 3.2 | 5.2 | 4.0 | 5.1 | 2.3 | 3.5 | |
| | Northern Jutland | 6.2 | 4.0 | 5.2 | 2.6 | 2.0 | 1.4 | |
| | Zealand | 2.5 | 1.3 | 2.0 | 1.4 | 3.3 | 2.3 | |
| | Southern Denmark | 2.3 | 3.4 | 2.3 | 3.4 | 4.1 | 1.8 | |

***Table 19. COVID-19: Number of residents at nursing homes admitted to hospitals***

**Table 19. Covid-19: number of newly admitted nursing home residents to hospital**

| Covid-19 | Region | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 44 | | 45 | 46 | 41-46 |
| Newly admitted nursing home residents in hospital | The capital | 1 4 | 3 | 1 2 | 5 | 1 | 6 | |
| | Central Jutland | 3 | 3 | 4 | 0 | 1 | 2 | |
| | Northern Jutland | 3 | 3 | 4 | 0 | 2 | 1 | |
| | Zealand | 3 | 3 | 1 | 2 | 0 | 1 | |
| | Southern Denmark | 3 | 2 | 2 | 4 | 5 | 3 | |
| | Denmark | 2 6 | 1 4 | 2 3 | 1 1 | 9 | 1 3 | |

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# Special personnel groups

Data is updated backwards.

***Table 20. COVID-19: Confirmed cases, incidence per 100,000 inhabitants, test rate and positive percentage among specific employees*** **Table 20. Covid-19: confirmed cases ,** incidence per 100,000 inhabitants, test rate and positive percentage among specific employee groups Confirmed cases

| Covid-19, special personnel groups | | 2022 week | | | | | | Trend week |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 | 44 | 45 | 46 | 41-46 |
| Social sector | | 603 | 535 | 451 | 271 | 316 | 259 | |
| | Incidence | 335 | 298 | 251 | 151 | 176 | 144 | |
| | Test rate | 5.1 | 3.7 | 4.4 | 3.4 | 3.7 | 3.1 | |
| | Positive percentage | 6.6 | 8.0 | 5.8 | 4.4 | 4.8 | 4.7 | |
| Health sector | Confirmed cases | 443 | 388 | 287 | 185 | 190 | 152 | |
| | Incidence | 248 | 216 | 161 | 103 | 107 | 85 | |
| | Test rate | 1.5 | 1.2 | 1.2 | 0.9 | 1.0 | 0.8 | |
| | Positive percentage | 16.8 | 18.3 | 13.9 | 11.0 | 11.1 | 10.4 | |

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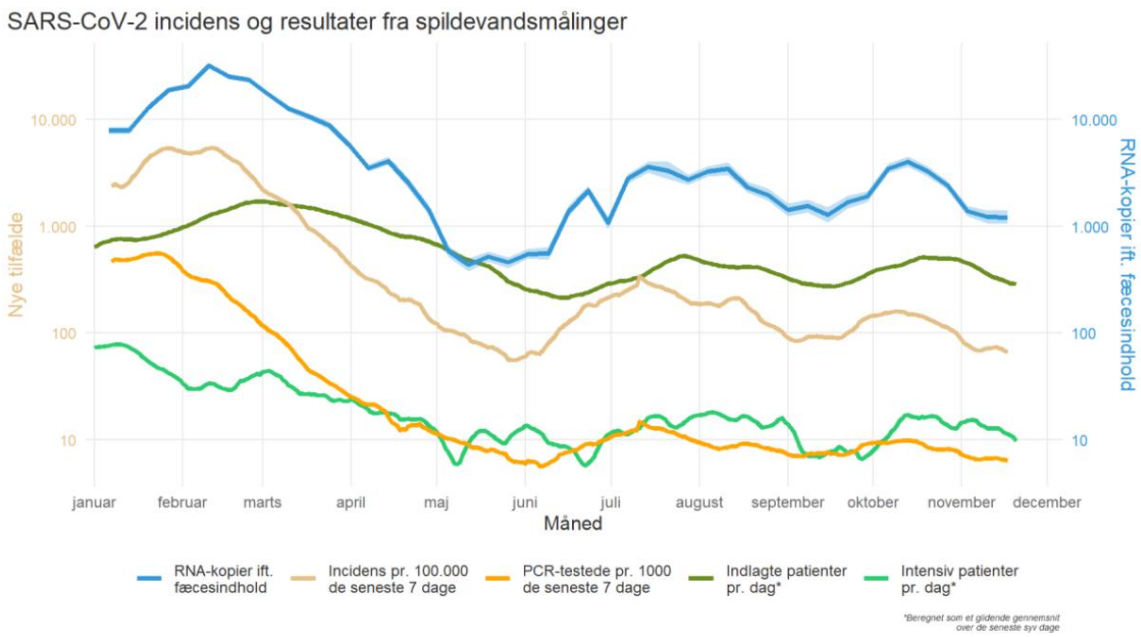
## Sewage

On SSI's website with monitoring of SARS-CoV-2, you can read more about waste water measurements.

***Figure 14. COVID-19: Incidence and results from waste-water surveillance, 2022***

**Figure 14. Covid-19: incidence and results from waste-water surveillance, 2022**




Note: Be aware that in week 16 2022 there have been changes in test and calculation methods, and that the results from week 28 2022 have been calculated after the adopted downscaling in the number of tests and test locations.

From 21.11.2022, a new method has been implemented to detect outliers for the RdRp and N2 gene respectively. If one of the two genes identified as an outlier, they will be predicted with the other gene. This has been introduced with retroactive effect (entire year 2022) and means therefore, that minor changes can be seen in the course of the graph.

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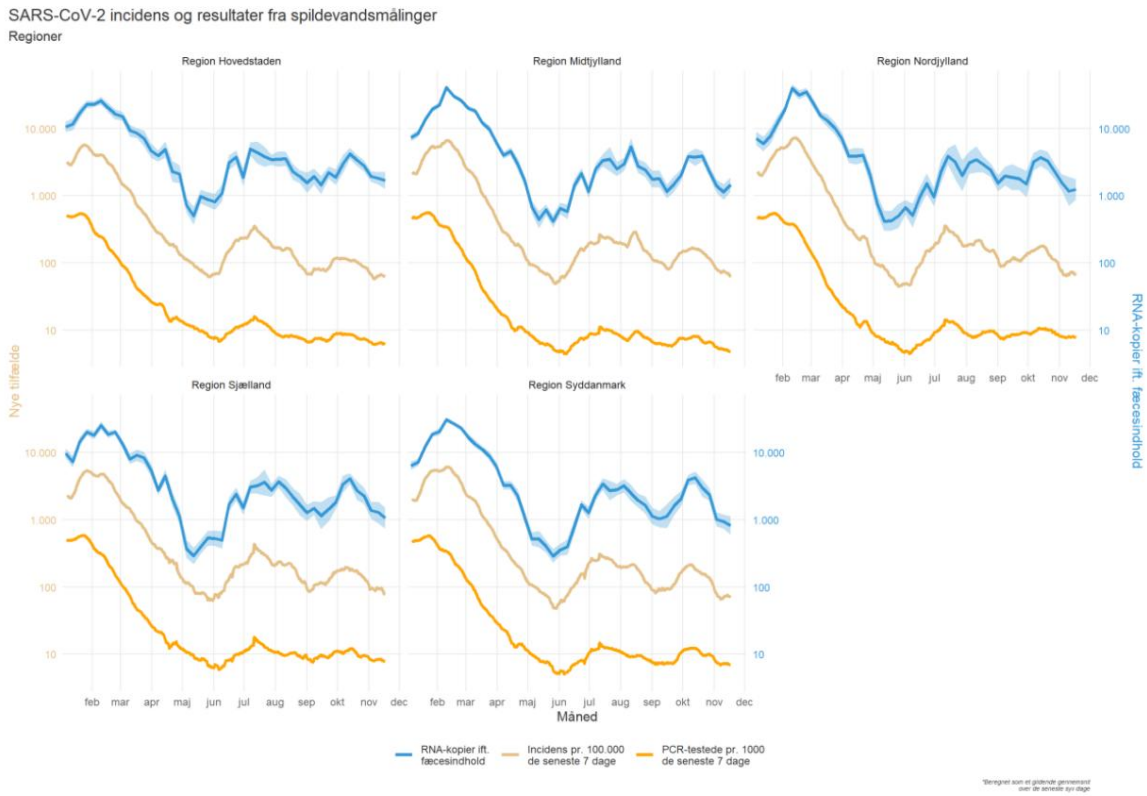
***Figure 15. COVID-19. Results from waste-water surveillance by region, 2022***

**Figure 15. Covid-19: results from waste-water surveillance by region, 2022**




Note: Be aware that in week 16 2022 there have been changes in test and calculation methods, and that the results from week 28 2022 have been calculated after the adopted downscaling in the number of tests and test locations.

From 21.11.2022, a new method has been implemented to detect outliers for the RdRp and N2 gene respectively. If one of the two genes identified as an outlier, they will be predicted with the other gene. This has been introduced with retroactive effect (entire year 2022) and means therefore, that minor changes can be seen in the course of the graph.

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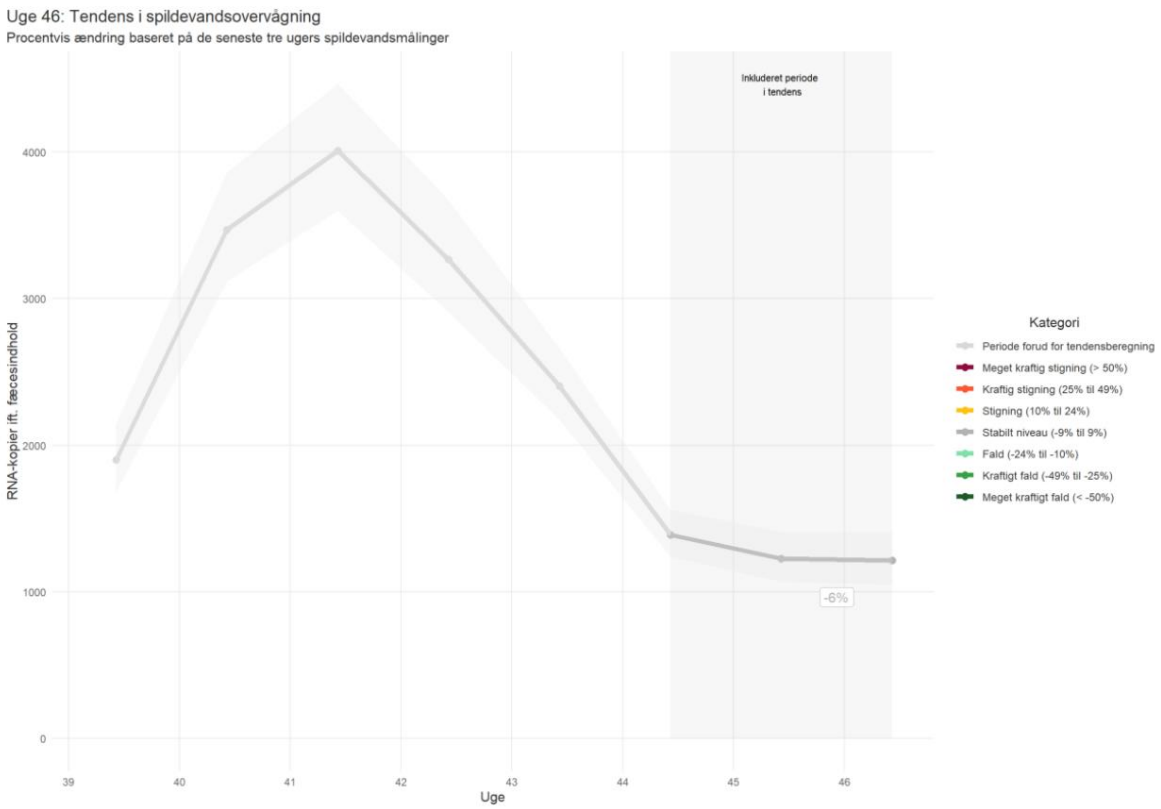
***Figure 16. COVID-19. National trends from waste-water surveillance, week 39-46***

**Figure 16. Covid-19: national trend in waste-water surveillance, week 39-46**




From 21.11.2022, a new method has been implemented to detect outliers for the RdRp and N2 gene respectively. If one of the two genes identified as an outlier, they will be predicted with the other gene. This has been introduced with retroactive effect (entire year 2022) and means therefore, that minor changes can be seen in the course of the graph.

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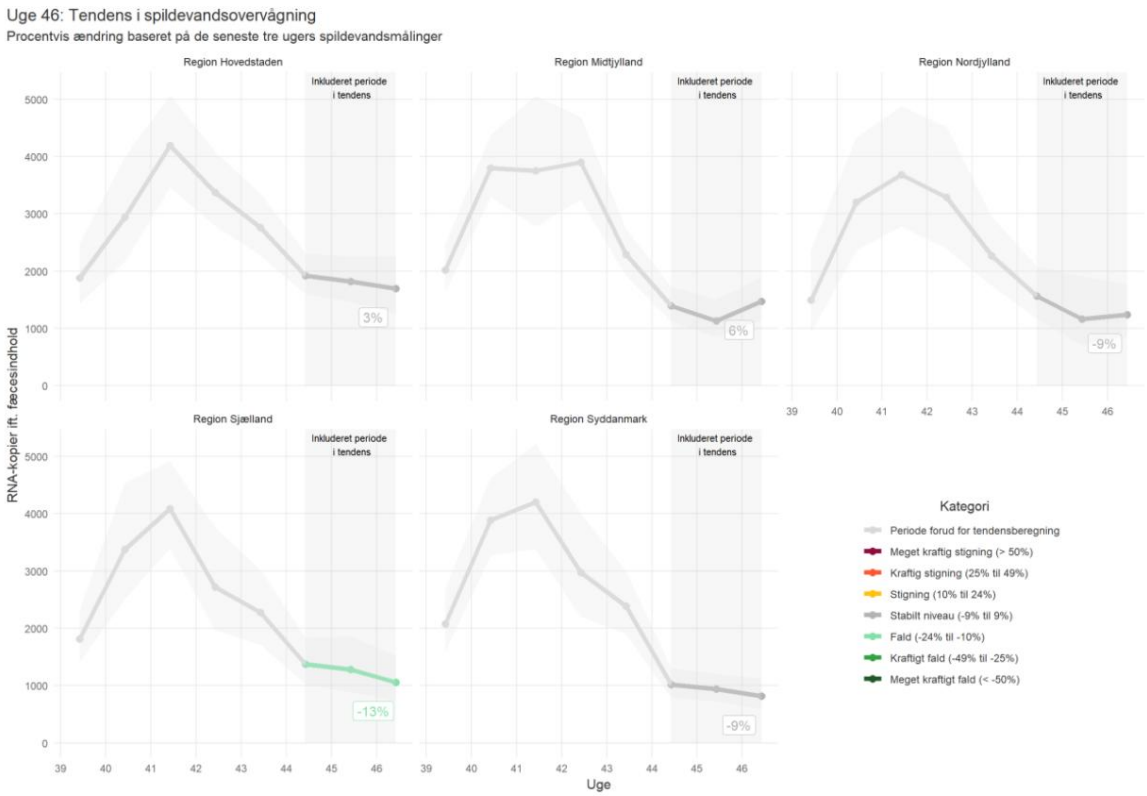
***Figure 17. COVID-19. Trends from waste-water surveillance by region, week 39-46***

**Figure 17. Covid-19: regional trends in waste-water surveillance, week 39-46**




From 21.11.2022, a new method has been implemented to detect outliers for the RdRp and N2 gene respectively. If one of the two genes identified as an outlier, they will be predicted with the other gene. This has been introduced with retroactive effect (entire year 2022) and means therefore, that minor changes can be seen in the course of the graph.

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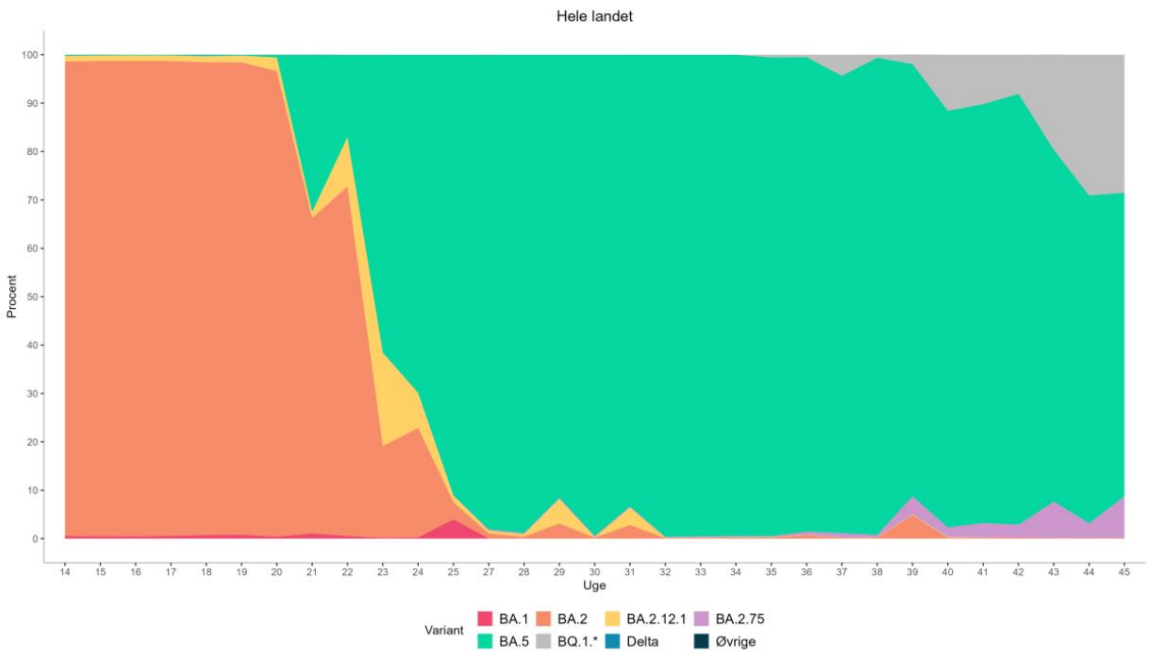
***Figure 18. COVID-19: Variant distribution of VOC (Variants Of Concern)/ VOI (Variants Of Interest) in waste water in Denmark from week 14, 2022.***

**Figure 18. Covid-19: variant distribution of VOC (Variants Of Concern)/VOI (Variants Of Interest) in waste water for the whole country from week 14, 2022.**



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## Presumed infected with covid-19 and symptoms

On SSI's website with monitoring of SARS-CoV-2, you can read more about COVIDmeter.

Data is updated backwards.

***Figure 19. COVID-19: Proportion of participants in user panel presumably infected with COVID-19 per week. Gray color indicates confidence interval for the calculation.***
**Figure 19. Covid-19: the proportion of responses from participants who are presumed to be infected with covid 19 per week in the past 5 months. The gray color indicates the confidence interval of the calculation (dark gray 95%, light gray 99%).**

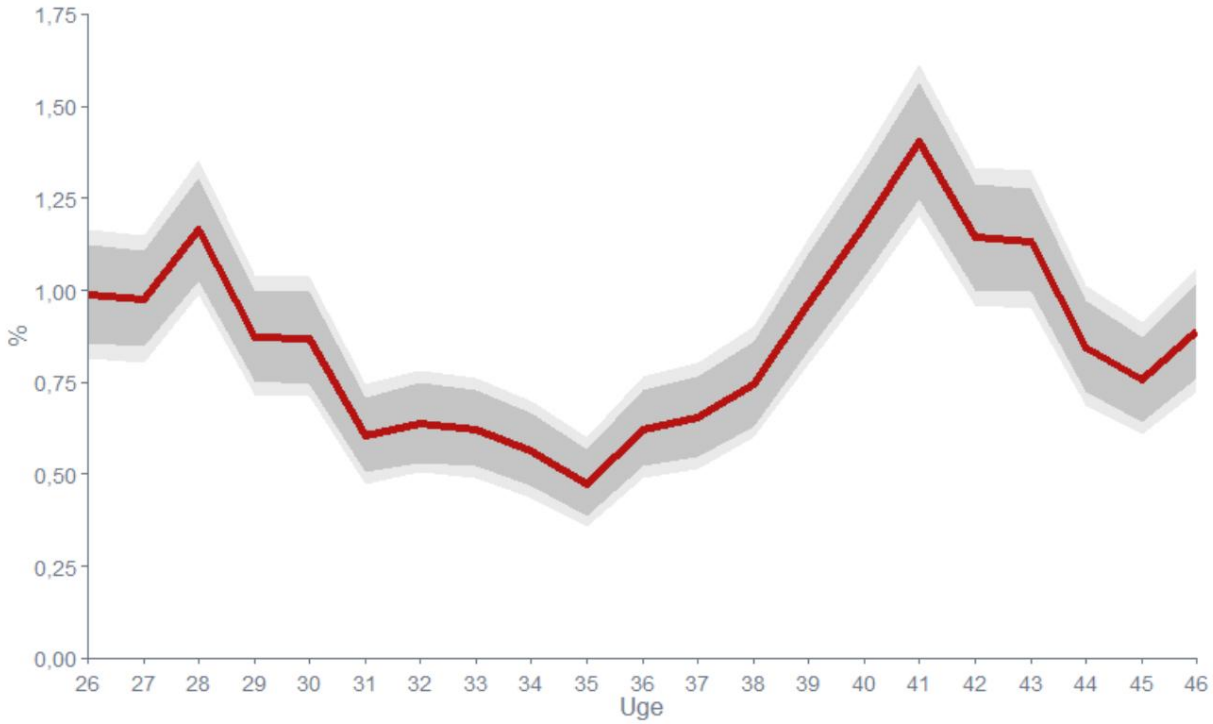

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***Table 21. COVIDmeter: Number of participants, proportion of presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants and self-reported test rate and positive percentage among presumably infected with COVID-19***

***Table 21. COVIDmeter: number of participants, proportion suspected of being infected with covid-19, self-reported test rate and positive percentage among all the COVIDmeter participants and among those suspected of being infected with covid-19***

| COVID meter | Number of participants, proportion suspected of being infected with covid-19 (%), test rate | 2022 week 41 | 42 | 43 | 44 | 45 | 46 | Trend week 41-46 |
|---|---|---|---|---|---|---|---|---|
| All participants in COVIDmeter | Number of participants | 21,873 | 21,977 | 21,978 | 21,643 | 21,524 | 21,390 | |
| | Presumed infected with covid-19 (%) | 1.4 | 1.1 | 1.1 | 0.8 | 0.8 | 0.9 | |
| | Test rate (%)* | 5.8 | 5.0 | 4.5 | 3.7 | 3.9 | 3.7 | |
| | Positive rate* | 2 5 | 2 1 | 1 8 | 1 3 | 1 2 | 1 0 | |
| Presumably infected with covid-19 | Test rate (%)* | 50 | 4 9 | 4 9 | 40 | 4 4 | 4 9 | |
| | Positive rate* | 6 2 | 5 7 | 4 3 | 40 | 4 1 | 2 9 | |

*self-reported PCR or antigen test (private and home test) (in the nose or throat), with test results.

***Table 22. COVIDmeter: Proportion presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants by region Table 22. COVIDmeter: proportion presumably infected with covid-19, self-reported test rate and positive percentage among all COVIDmeter participants distributed on regions***

| COVID meter | Region | 41 | 42 | | | 45 | 46 | Trend week 41-46 |
|---|---|---|---|---|---|---|---|---|
| Number of participants | The capital | 8,006 | 7,995 | 8,012 | 7,883 | 7,837 | 7,858 | |
| | Central Jutland | 4,929 | 4,972 | 4,991 | 4,881 | 4,843 | 4,831 | |
| | Northern Jutland | 2,019 | 2,045 | 2,021 | 1,975 | 1,987 | 1,953 | |
| | Zealand | 3,063 | 3,143 | 3,137 | 3,097 | 3,076 | 3,038 | |
| | Southern Denmark | 3,856 | 3,822 | 3,817 | 3,807 | 3,781 | 3,710 | |
| Presumed infected with covid-19 (%) | The capital | 1.6 | 1.0 | 1.1 | 0.7 | 1.0 | 0.8 | |
| | Central Jutland | 1.2 | 1.2 | 1.1 | 0.9 | 0.6 | 0.8 | |
| | Northern Jutland | 1.7 | 1.3 | 1.4 | 0.7 | 0.6 | 1.1 | |
| | Zealand | 1.1 | 1.1 | 0.7 | 1.4 | 0.7 | 1.1 | |
| | Southern Denmark | 1.2 | 1.2 | 1.5 | 0.7 | 0.7 | 0.9 | |
| Test rate (%)* | The capital | 5.7 | 5.0 | 4.8 | 3.6 | 3.7 | 3.5 | |
| | Central Jutland | 5.8 | 4.6 | 4.2 | 3.4 | 4.0 | 3.6 | |
| | Northern Jutland | 5.9 | 5.0 | 4.2 | 4.0 | 3.6 | 4.1 | |
| | Zealand | 5.9 | 5.4 | 4.1 | 3.9 | 4.4 | 3.8 | |
| | Southern Denmark | 6.1 | 5.4 | 4.8 | 3.9 | 3.7 | 4.0 | |
| Positive rate* | The capital | 22.4 | 20.7 | 16.8 | 14.2 | 14.7 | 10.1 | |
| | Central Jutland | 22.2 | 20.3 | 18.8 | 15.2 | 10.9 | 8.6 | |
| | Northern Jutland | 29.4 | 18.6 | 17.7 | 10.3 | 7.0 | 13.9 | |
| | Zealand | 27.8 | 22.6 | 16.2 | 14.2 | 11.9 | 10.4 | |
| | Southern Denmark | 26.9 | 23.7 | 21.4 | 10.8 | 10.7 | 6.7 | |

*self-reported PCR or antigen test (private and home test) (in the nose or throat), with test results.

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***Table 23. COVIDmeter: Age specific proportion presumably infected with COVID-19, self reported test rate and positive percentage among COVIDmeter participants by week, 2022.***

***Table 23. COVIDmeter: age-specific proportion presumed to be infected with covid-19, self-reported test rate and positive percentage among the COVIDmeter participants by week, 2022***

| COVIDmeter, age groups | Number of participants, proportion suspected of being infected with covid-19 (%), test rate (%) and positive percentage | 2022 week | | | | | | Trend week 41-46 |
|---|---|---|---|---|---|---|---|---|
| | | 41 | 42 | 43 | 44 | 45 | 46 | |
| 40-49 years | Number of participants | 1,846 | 1,829 | 1,831 | 1,817 | 1,819 | 1,772 | |
| | Presumed infected with covid-19 (%) | 2.0 | 2.1 | 1.7 | 1.2 | 1.0 | 1.8 | |
| | Test rate (%)* | 9.2 | 8.6 | 7.5 | 6.7 | 7.2 | 7.3 | |
| | Positive rate* | 22.4 | 27.9 | 21.9 | 12.3 | 17.7 | 16.2 | |
| 50-59 years | Number of participants | 4,941 | 5,065 | 5,027 | 4,971 | 4,903 | 4,820 | |
| | Presumed infected with covid-19 (%) | 1.4 | 1.2 | 1.6 | 1.4 | 1.2 | 1.3 | |
| | Test rate (%)* | 8.1 | 6.8 | 6.0 | 5.5 | 5.6 | 5.6 | |
| | Positive rate* | 20.2 | 19.1 | 16.9 | 13.5 | 10.5 | 9.6 | |
| 60-69 years | Number of participants | 7,784 | 7,793 | 7,782 | 7,616 | 7,609 | 7,566 | |
| | Presumed infected with covid-19 (%) | 1.5 | 1.1 | 1.0 | 0.7 | 0.6 | 0.8 | |
| | Test rate (%)* | 5.7 | 5.0 | 4.4 | 3.3 | 3.5 | 3.6 | |
| | Positive rate* | 23.9 | 18.8 | 15.7 | 11.0 | 11.6 | 6.3 | |
| 70+ years | Number of participants | 6,785 | 6,758 | 6,765 | 6,698 | 6,663 | 6,715 | |
| | Presumed infected with covid-19 (%) | 1.1 | 0.9 | 0.8 | 0.4 | 0.5 | 0.5 | |
| | Test rate (%)* | 3.0 | 2.7 | 2.4 | 1.7 | 1.8 | 1.5 | |
| | Positive rate* | 36.4 | 25.8 | 21.8 | 17.1 | 8.2 | 7.8 | |

*self-reported PCR or antigen test (private and home test) (in the nose or throat), with test results.

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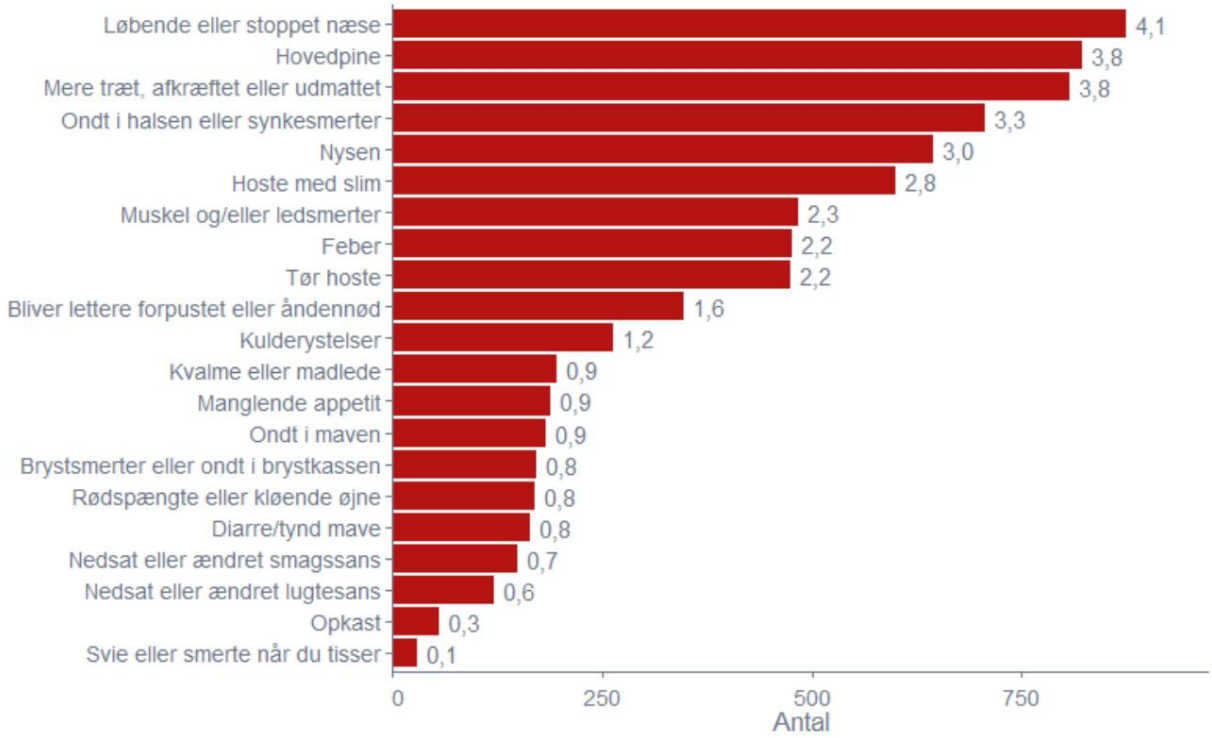
***Figure 20. COVID-19: Symptoms reported to COVIDmeter by number in week 46, 2022.***

**Figure 20. Covid-19: symptoms reported to the COVIDmeter divided by number in week 46, 2022.**



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# Data base

## Covid-19

This report is based on PCR-confirmed cases.

Data for the past week is drawn on the date of preparation. Data is not updated retroactively unless otherwise specified. Data for positive PCR tests are calculated on the sample date, and therefore there may be some samples from the past week for which answers have not yet been received. However, it is considered that the data is sufficient to assess trends and signals. It is also assessed that retroactive changes in data are small and are insignificant in relation to the conclusions in the report.

The positive percentage is calculated so that a person can only contribute one negative test per week. People with previous covid-19 infection are not included in the calculation.

### Definition of incidences in the report

In this report, the following method is used to calculate the incidences per week:

When describing the national, regional and age incidences in the report, the number of confirmed cases in the relevant week (7 days calculated on the sample date) per 100,000 inhabitants is used.

### Populations for calculating incidence

To be included in the underlying population, several criteria must be met, including that:

- the person must have a valid municipality code that matches an existing one commune
- gender must be stated •

the person must have a valid road code.

The persons included are therefore persons who meet the above criteria, have a valid social security number and reside in Denmark. The population is based on the cpr register and is updated monthly.

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# Vaccination data

From 12 October 2022, SSI will switch to the following calculation method/naming when describing the Danish covid-19 vaccination programme:

• Primary vaccinated •
Booster vaccinated • Booster
vaccinated since 15 September 2022

Primary vaccinated have received 2 injections, while booster vaccinated have received 3 or more injections.

Shares are calculated based on a given share of the target group in the entire population.

## Vaccine efficacy

The analysis covers the period from 29 September to 31 October and includes all 50-year-olds residing in Denmark who have not previously been hospitalized due to covid-19 and who have received at least three covid-19 vaccinations 140 days before start of studies.
The analysis, adjusted in a Cox regression model for calendar time, age, sex, region, co-morbidity, and previous infection, compares the hospitalization rate among those who received the 4th injection from September 15, 2022, with those who received only 3 plug. People are followed over time from the start of the study period (but not before 14 days have passed after the last vaccine injection) until departure, death, vaccination or PCR-proven infection, whether it leads to hospitalization or not.

# Definition of covid-19-related admissions in SSI's covid 19 surveillance

From week 18, 2022, re-infections were included, and the calculation method is then also updated backwards.

For a more in-depth definition of covid-19 hospitalizations, please refer to the Focus report on COVID -19-related hospitalizations during the SARS-CoV-2 epidemic, published on 6 January, 2022.

Characterization of covid-19-related admissions based on hospital diagnoses – development of new algorithm Covid-19-related admissions will be divided into 3 categories via this algorithm:

• Covid-19 diagnosis: Patients who have been diagnosed with covid-19, and thus have been assessed by the attending physician to be ill with covid-19. • Respiratory diagnosis or observation (obs) for covid-19: Patients who have been diagnosed with another respiratory disease, where the symptoms completely or partially overlap with covid-19, or where covid-19 is suspected.

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- Other diagnosis: Patients who have not been diagnosed with covid-19 or a diagnosis of respiratory disease or observation for covid-19, but instead have completely different diagnoses during admission, e.g. fracture, pregnancy or concussion.

In the daily surveillance of the SARS-CoV-2 epidemic, the SSI has defined a covid-19-related hospitalization as a hospitalization among people with a positive SARS-CoV-2 test taken from 14 days before admission or during the hospitalization. If a positive SARS-CoV-2 test is registered in the period 14 days before to 48 hours after, the covid-19-related hospitalization starts at the time hospitalization test positive for SARS-CoV-2, more than 48 hours after the time of admission. Patients who are also registered with a covid 19-related hospitalization, but here the date of admission is considered to be equal to the test date (the period of 14 days before to 48 hours after is chosen as there is an expected latency period from infection to the development of a serious illness that can lead to hospitalization).

The inventory of covid-19-related hospitalizations in SSI's surveillance is based on 3 data sources:

- SARS-CoV-2 test response and variant PCR response from the Danish microbiology database (MiBa).
- Information about admissions registered in the National Patient Register (LPR).
- Snapshot data from the regions that provide an overview twice daily hospitalized covid-19 patients.

When it is determined whether a patient has been hospitalized with covid-19, another respiratory or obs diagnosis or another diagnosis, the registration will always take place with a delay in relation to the time of admission. Therefore, 14 days must pass before the data is accurate, which means that this data is older than the other data in the report.

## SARS-CoV-2 variants

The section "SARS-CoV-2 variants" is based on results from whole genome sequencing.

Data for the past week is drawn on the date of preparation. Data is continuously updated backwards as results from sequencing are added. Data is calculated on test date, and therefore there may be some tests from the past week for which answers have not yet been received. However, it is considered that the data is sufficient to assess trends and signals. It is also assessed that retroactive changes in data are small and are insignificant in relation to the conclusions in the report.

## Mortality

**Calculation of deaths with and from covid-19**

In the daily counts of covid-19-related deaths, all deaths that have occurred among persons with at least one positive PCR test within the most recent

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30 days. The definition of covid-19-related death is an international standard, has been in use since the start of the epidemic and is relatively easy to use in practice.

However, with a high incidence of covid-19, the definition will include a number of people who have tested positive but who have died from other causes. On the basis of the number of deaths per week and the incidence of covid-19 infection, it can be calculated using probability mathematics how many people have died "from" covid-19 and how many have died "with" covid.

The analysis assumes that all individuals in the group have the same probability of testing positive and the same probability of dying during the period - or at least that the two quantities are independent. Younger people (0-39 years old) have e.g. approx. 20% probability of testing positive during the period and at the same time a very small probability of death, while the elderly (aged 65+) only have approx. 2.5% probability of testing positive and at the same time significantly higher risk of death. It is therefore necessary to carry out the analysis for each age group separately. In the analysis, for practical reasons, we have chosen to use the age groups 0-19, 20-39, 40-59, 60-69, 70-79 and 80+. The exact choice of age groups will not affect the final result to any significant degree, but if the method is used without age division, answers will appear which cannot be used.

The age-specific 30-day incidence of positive covid-19 test is taken from SSI's weekly statements. The weekly age-specific information on the number of deaths among test-positive persons is obtained from the same place. The total weekly age-specific deaths are obtained from SSI's contribution to the EuroMOMO surveillance and use EuroMOMO's normal method of correction for delays in the registration of deaths.

Further details of the methods used and interpretations can be requested from SSI.

**Validation of covid-19 deaths cf. the Cause of Death Register**

A more accurate way to calculate how many have died "from" covid-19 and how many have died "with" covid-19 is by using death certificates. However, this method causes more delay in data. In data from the Cause of Death Register via the Danish Health Data Agency, deaths are included where one of the following ICD10 codes is marked on the death certificate as the underlying cause:

- Covid-19 infection without indication of location
- Covid-19, severe acute respiratory syndrome
- Corona virus infection without specification
- Covid-19, virus identified
- Covid-19, virus not identified

The death is included if 30 days or less have passed since the positive SARS-CoV 2 test.

## Nursing homes and special staff groups

Test and positive test data.

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The data basis for the calculations is a compilation of the Statens Serum Institut's overview of COVID-19 tests (MiBa), the Danish Agency for Labor Market and Recruitment's process database, DREAM, the CPR register and the Danish Health Data Agency's overview of nursing home residents. The report was made by the Danish Health Data Agency.

- The overview of COVID-19 tests (MiBa) was updated on the night of Tuesday
- Information on industry affiliation from the DREAM database is based on the latest possible employment information
- The CPR register per date when data is extracted
- The nursing home overview

The overview of COVID-19 tests (MiBa) is a mirror of MiBa.

The calculation is based on residents and staff who are active in CPR (not deceased or emigrated) with residence in the Danish population register. It looks both at unique tested persons in the specified week and at tests carried out.

Nursing home residents include people who, on Monday of the given week, have an address at a nursing home that appears in the Nursing Home Overview. The municipality indicated is based on the nursing home address.

Nursing home employees include people who are employed in the industry "87.10.10 - Nursing homes".

Home help employees include people who are employed in the industry "88.10.10 - Home help".

The branch association is formed from the wage report to the wage income register and the branch of the company from which citizens in the given month received the largest wage sum. In Statistics Denmark's Register-based Labor Force Statistics (RAS), industry affiliation is attempted to be corrected for any misreporting. Data used here do not contain corrections for industry affiliation.

Waste water The
results are based on waste water analyzes provided by Eurofins Miljø A/S.

Note: The
graphs of SARS-CoV-2 in the wastewater have been adjusted on 10/10/2022 based on corrected laboratory results from Eurofins Miljø A/S. The current and future graphs cannot therefore be compared directly with the previously published ones. The change was introduced as of 10/10/2022 and has been implemented retroactively until 03/01/2022.
On 21.11.2022, a new method was implemented to detect outliers for the RdRp and N2 gene respectively. If one of the two genes is identified as an outlier, they will be predicted with the other gene.

The predictions are made by finding the median of the difference between the logarithm of the faecal normalized RdRp and N2 values in the previous 4 weeks. If RdRp is identified as an outlier, then this difference is added to the N2 values. If N2 is

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identified as an outlier, then this difference is subtracted from the RdRp values. All done on log10 transformed values. These predicted values are then included in the calculations in the same way as they usually are. This has been introduced with retroactive effect (entire year 2022) and therefore means that minor changes can be seen in the course of the graph.

Trend analyses:

The results of the national wastewater monitoring of SARS-CoV-2 are shown for the whole country as well as for the five regions from 03.01.2022 onwards*. The results are presented in graphs showing the viral concentrations of SARS-CoV-2 (RNA copies/L) in relation to the amount of faeces in the wastewater. The waste water samples are analyzed in the laboratory for the content of SARS-CoV-2 (RNA) and for two other harmless and naturally occurring viruses/bacteriophage (PMMoV and CrAssphage) that are excreted in the faeces.
By using these indirect measures of the amount of faeces in the wastewater and comparing them with SARS-CoV-2 RNA copies/L, dilution of the wastewater e.g. due to rainwater is taken into account in the results.
The national graph and the regional graphs are made by weighting the waste water results from each treatment plant in relation to the number of residents in the catchment area, after which the results are added together. The combined measurements are then presented in the graphs.

*From week 28, the results are calculated according to the adopted downscaling in the number of samples and sampling locations, which includes 87 sampling locations with two weekly samplings. Up to week 28, the wastewater monitoring included 202 sampling sites with three weekly samplings.

Growth rates:
The curves with the growth rates show the national and regional growth rates of SARS-CoV-2 in the wastewater over the past three weeks. The growth rates are the percentage change in the concentration of SARS-CoV-2 in the wastewater over a three-week period. The growth rates are calculated using a linear mixed model, where the slope coefficient is subsequently converted to a percentage. All calculations are made on a log scale.

SARS-CoV-2 variant analysis of wastewater:

The variant analyzes of the wastewater are based on sequencing of a piece of the spike gene from the composition of different SARS-CoV-2 variants present in the wastewater. Based on these sequences, the presence of the variants that ECDC (The European Center for Disease Prevention and Control) considers to be current VOC (variants of concern) and VOI (variants of interest) at any time is examined.

The variant analyzes from Wastewater monitoring are shown from week 14 onwards. The results are shown as an overall result for the entire country. The occurrence of the different variants from the individual treatment plants is normalized before they are included in the overall figure. The normalization takes place on the basis of the virus RNA concentration in relation to the number of people who contribute to the specific treatment plant. This means that the graphs are made by weighting the number of virus RNA of the different variants found in the waste water from each treatment plant in relation to the number of residents in the catchment area, after which they are added together. The combined measurements are then presented in the graphs as a percentage of the total number of variants found.

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From week 28, the results are calculated according to the adopted downscaling in the number of samples and sample sites, which includes 50 sequencings/week from up to 89 sample sites. Previously, the figures were based on up to 230 sequestrations/week from as many places.

## COVID meter

Presumed infected with covid-19 and symptoms are based on data from COVIDmeter.
COVIDmeter is a digital solution where citizens can register for a user panel and report weekly whether they have had symptoms or not. All information in COVIDmeter is self-reported.

The COVIDmeter participants are not a representative sample of the Danish population. Eg. women and people aged 40-70 are overrepresented in the user panel.

To be included in the analyses, the user must have submitted a minimum of three responses.

For the COVIDmeter, a separate analysis has been made to be able to answer the question of which combination of symptoms is most likely due to covid-19. It is based on data from people who have had symptoms and have tested positive for covid-19 and people who have had symptoms but who have tested negative for covid-19. This concerns data from two other surveillance systems (SSI's sentinel surveillance and SSI's interview with people who have tested positive for covid-19).

If you fulfill the case definition two weeks in a row, you are only included as presumed infected with covid-19 in the first week.

The test rate and positive percentage are based on self-reported negative and positive test results (PCR and home test).

Other respiratory diseases Sentinel

monitoring forms an important part of the Danish and international standardized monitoring of influenza and other respiratory infections, including covid-19 and RS virus. A fixed number of general practitioners geographically distributed throughout the country are included in the sentinel monitoring. The sentinel doctors report weekly how many patients with flu-like symptoms they see in their practice, as well as how many consultations they have had in total in their practice. In addition, they take weekly swabs from patients with flu-like illness. The swabs are analyzed at the Statens Serum Institut for a wide range of different respiratory viruses. The results from the sentinel monitoring are used to assess the prevalence of respiratory infections in the population, as well as which respiratory viruses are the cause.

The influenza and RSV surveillance.

Data for the past week is extracted on the compilation date. Data is not updated retroactively unless otherwise specified. Data for positive PCR tests are calculated on the sample date, and therefore there may be some samples from the past week for which answers have not yet been received. However, it is considered that the data is sufficient to assess trends

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and signals. It is also assessed that retroactive changes in data are small and are insignificant in relation to the conclusions in the report.

## Definition of incidences in the report

In this report, the following method is used to calculate the incidences per week:

Number of confirmed cases in the week in question (Monday to Sunday inclusive) per 100,000 inhabitants.

The background population is the entire population of Denmark.

# Links

Statistics on covid-19 in Denmark can be seen here:
Covid-19 monitoring figures - updated every Tuesday