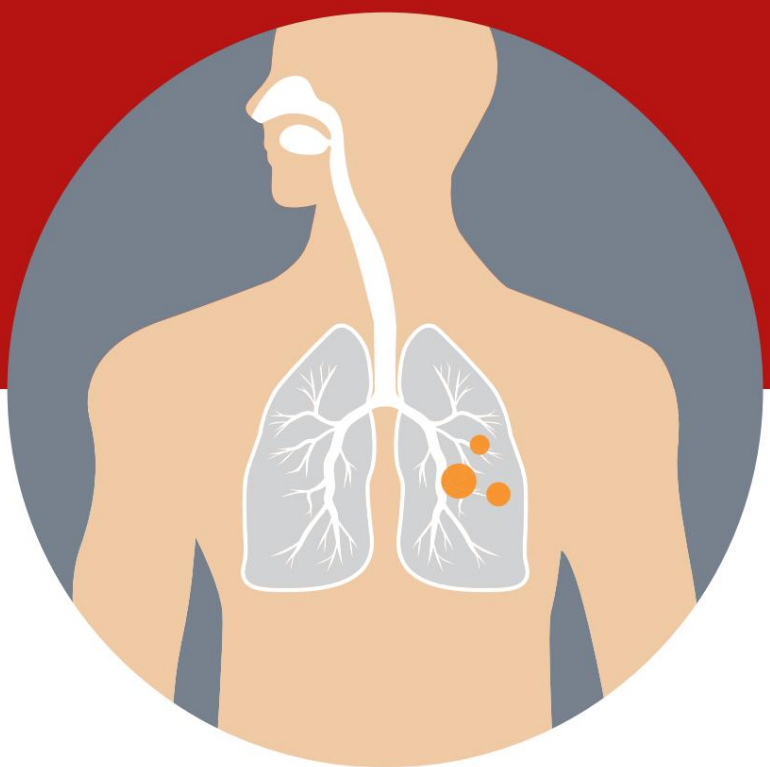
STATENS SERUM INSTITUT

Weekly trends: covid-19 and other respiratory infections

Week 43 | 2022



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The epidemiological development of covid-19 and other respiratory infections in Denmark from week 41 to week 42

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Overall assessment

The number of confirmed cases with SARS-CoV-2 are slightly decreasing in week 42 to an incidence of 129 cases per 100,000 inhabitants. The decrease is particularly seen in age groups above 50 years old.

There has also been a decrease in the number of new hospital admissions with positive SARS-CoV-2 test from 764 in week 41 to 614 in week 42. The decrease is especially seen in the age groups from 70 to 89 years old while these age groups however still constitute the largest proportion of new admissions. The number of admissions to intensive care units with a positive SARS-CoV-2 test is still at a very low level in week 42.

The number of confirmed cases with SARS-CoV-2 among nursing home residents is at a stable level, while the number of new hospital admissions among nursing home residents with a positive SARS-CoV-2 test has fallen. By week 42, 86.4% of nursing home residents have received a booster vaccination with a COVID-19 vaccine since 15th of September.

Since 15th of September 2022, approximately 54% of the population above 50 years old has received a booster vaccination with a COVID-19 vaccine.

So far, the number of COVID-19 related deaths in week 42 has increased to 88. There is no general excess mortality in the population, however excess mortality is registered in the age group from 75 to 84 years old.

So far, BA.5 constitute 92% of the sequenced PCR tests. The development of the current variants and sub-variants are followed closely.

A slightly decreasing concentration of SARS-CoV-2 in waste water samplings is seen at a national level in week 42.

There is also a decreasing share of COVIDmeter's user panel who are presumed infected with COVID-19 in week 42.

Overall, on a national level a slightly decreasing number of confirmed cases with SARS CoV-2 is seen alongside a decrease in new hospital admissions with a positive SARS CoV-2 test and a decrease in the concentration of SARS-CoV-2 in waste water samplings in week 42. 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 but an increase in the number of deaths related to COVID-19. More than half the population above 50 years old has now received a booster vaccination, and it is also in this age group the fall in number of confirmed cases is biggest.

Summary

- For the second week in a row, there is a decrease in the number of people who have been confirmed infected with SARS-CoV-2 and the number of confirmed infected is in week 42 at 129 cases per 100,000 inhabitants. The number of PCR tests has correspondingly decreased from week 41 to week 42 after being stable from week 39 to week 41. The positive percentage is stable from week 41 to week 42 at 18%.

- From week 41 to week 42, a decrease in the incidence of infection is seen across all regions. In week 42, the incidence of infection is still highest in Region Zealand (165 per 100,000 inhabitants) and still lowest in the Capital Region (103 per 100,000 inhabitants). The highest positive percentage is still seen in Region Central Jutland and is 22.8%.

- There is a decrease or a stabilization in the number of confirmed infected in most age groups, except among the 20-24-year-olds and 30-39-year-olds, where an increase is seen from week 41 to week 42. The decrease is most pronounced in the over-50 age groups. The incidence of infection is now highest among the 60-69-year-olds and the 50-59-year-olds (respectively 197 and 188 cases per 100,000 inhabitants) and not among the 70-79-year-olds as in previous weeks.

- The test rate has fallen in most age groups, except among the 0-5-year-olds, where the test rate is stable from week 41 to week 42.

- From week 41 to week 42, the positive percentage is decreasing among the oldest age groups from 60-80+ years and stable among the 20-25-year-olds, while it is increasing in the remaining age groups. The highest positive percentage of 19% is still seen among the 40-59 year-olds, and the second highest of 18% is seen among the 30-39-year-olds and the 60-79-year-olds.

- After an increase in weeks 35 to 41 in the number of new hospital admissions where there is a positive test for SARS-CoV-2, there is a decrease from week 41 to 42. In week 42, there are thus 614 new admissions compared to 764 in week 41. The decrease is particularly noticeable among people aged 70-89, who, however, continue to make up the largest group of newly admitted patients, 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 12 cases in week 42. 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 is also in week 40 at 45%. See updated classification of covid-19-related admissions.

- The number of covid-19-related deaths has increased to a provisional 88 deaths in week 42 from 55 in week 41. The overall mortality in Denmark is at a normal level, but excess mortality is observed in the age group 75-84 years.

- Among nursing home residents, the number of confirmed cases is stable in week 42 at 132 coincidence. A slight drop in the test rate from 10.0% to 9.4% has been seen in week 42. At the same time, the positive percentage remains stable at 3.5% in week 42. The number of deaths among residents with covid-19 has increased to 20 from 7 in week 41. The number of newly admitted care home residents in hospital has fallen to 13 in week 42 from 25 in week 41. In week 42, 86.4% of nursing home residents have now received a booster of covid-19 vaccine since 15 September 2022.

- Week 42 continues to see a decrease in the number of confirmed SARS-CoV 2 infections among staff in the social and health sector. In the social sector, the incidence of infection in week 42 has fallen to 289 cases per 100,000 inhabitants, the test rate has also fallen from 5.0% in week 41 to 3.7% in week 42, while the positive percentage is increased from 6.6% to 7.9%. Among personnel in the health sector, the number of confirmed cases has fallen to 362 per 100,000 inhabitants, there is also a decrease in the test rate from 1.5% in week 41 to 1.2% in week 42, while a slight increase in the positive rate is seen from 16 .5% in week 41 to 17.4% in week 42.

- When calculated at the end of week 42, approx. 54% of the population over 50 years since 15 September 2022 received a booster vaccination with a covid-19 vaccine. The development in primary and booster vaccinated can be followed on SSI's vaccine dashboard (see also Data basis).

- BA.5 is still the dominant variant with a share that has stabilized over recent months and amounts to approx. 92% of the sequenced samples in week 42. The most frequent subvariant is BF.7, which has increased steadily over the past month and now accounts for approx. 21% of the sequenced samples in week 42. There is only a minor increase in the proportion of sequenced samples with BQ.1.1, which amounts to approx. 6% of the sequenced samples in week 42. In general, reservations must be made that a large number of samples for week 42 still need to be sequenced.

- In week 42, slightly decreasing concentrations of SARS-CoV-2 in the waste water are seen nationally and in all regions, except Region Central Jutland, which is at the same level as 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 the Capital Region, Central Jutland Region and Region Northern Jutland and a decrease in Region Zealand and Region Southern Denmark.

- In week 41, BA.2.75 is detected for the 3rd week in a row in the waste water, approx. 5% nationwide. This week, this variant is observed more evenly distributed over more regions than previously within the same week. BA.5 is still the predominant SARS-CoV 2 variant (about 95%). 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, the occurrence of the indicated percentage of BA.2.75 is not necessarily a direct expression of the distribution of this variant in the entire population

The distribution of the variants in the individual parts of the country can be seen here. For this week's data, the analysis is based on 50 successful sequencing runs out of a possible 50.

- For the first time since week 35, a decrease is seen in the proportion of the COVIDmeter user panel that is presumed to be infected with covid-19, corresponding to 1.1% being presumed to be infected with covid-19 in week 42. A decrease is seen in all regions from week 41 to week 42. There is a decrease in the proportion who are presumed to be infected with covid-19 among the 50+ year olds, while an increase is seen among the 40-49 year olds from week 41 to week 42.
  The test rate has decreased to 5.0% in week 42 from 5.8 in week 41. The positive rate has decreased to 21% in week 42 from 25% in week 41.

- The sentinel monitoring shows that the proportion of samples in which respiratory virus has been detected was stable from week 38 to week 39, while it increased from approx. 60% in week 39 to approx. 70% in week 40.
  In week 40, rhino virus was the most frequent virus in the samples from the sentinel surveillance. The development of the RS virus and influenza can also be followed
  SSI's RS virus dashboard, and SSI's Flu Dashboard.

Overall assessment

The number of cases found to be infected with SARS-CoV-2 is slightly decreasing in week 42, and the incidence of infection 129 cases per 100,000 inhabitants. The drop in infection is most pronounced in the over 50 age group.

In week 42, a decrease in the number of new admissions with a positive SARS-CoV 2 test was also seen, from 764 admissions in week 41 to 614 in week 42. The decrease is particularly pronounced in the age groups 70-89 years, but this age group still constitutes by far the largest proportion of new admissions. The number of admissions to intensive care units with a positive SARS-CoV-2 test is still at a very low level in week 42.

A stable level is seen in the incidence of infection among nursing home residents as well as a decrease in the number of newly admitted nursing home residents with a positive SARS-CoV-2 test. At the exit of week 42, 86.4% of nursing home residents have received a booster vaccination with a covid 19 vaccine since 15 September.

Since 15 September 2022, approx. 54% of the population over 50 received a booster vaccination with a covid-19 vaccine.

The number of covid-19-related deaths has risen to a provisional 88 deaths in week 42. There is no excess mortality in general in the population, but an excess mortality is observed in week 42 among the 75 to 84-year-olds.

BA.5 in week 42 provisionally constitutes 92% of the sequenced PCR samples. The development of the current variants and sub-variants is closely followed.

In week 42, a slightly decreasing concentration of SARS-CoV-2 in the waste water is seen nationally after a sharp increase in the previous 4 weeks.

Correspondingly, in week 42, a decreasing proportion of the COVIDmeter user panel, which is presumed to be infected with covid-19, is seen.

In week 42, nationally, there is a slightly 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 decrease in the concentration of SARS-CoV-2 in waste water. The number of people hospitalized in intensive care with a positive SARS-CoV-2 test is still at a low level. There is no excess mortality in general in the population, but an increase in the number of deaths related to covid-19. More than half of the population over the age of 50 have now received a booster vaccination, and it is also in this age group that the drop in infection is most pronounced.

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.

key figures

Covid-19

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

Table 1. Covid-19: Key figures and trends, broken down by week, 2022

Covid-19	2022						Trend week
	37	38	39	40	41	42	37-42
Incidence per 100,000 inhabitants*	8 9	118	144	161	152	129	
Number of tests performed (PCR)	43,028 46,533		54,612 55,519		56,019 47,328		
Confirmed cases (PCR)	5,238	6,961	8,346	9,512	9,015	7,613	
Positive rate (PCR)	13.3	16.2	17.1	18.9	17.6	17.8	

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 figures and trends for hospital admissions and deaths, broken down by week, 2022

Covid-19	2022						Trend week
	37	38	39	40	41	42	37-42
New hospital admissions	337	457	573	636	764	614	
Number admitted Monday morning	302	376	434	456	548	521	
Number admitted to intensive care on Monday morning	1 0	4	9	1 8	1 7	1 2	
Number of dead *	2 5	3 7	4 8	5 5	5 5	8 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 figures and trends for vaccination, broken down by week,

Covid-19 vaccination	2022 2022						Trend week
	37	38	39	40	41	42	37-42
Number of people who have received boosters since 15 September 2022	14,329	60,040	141,704	668,762 1,059,490 1,326,679			
Proportion of people who have received a booster since 15 September 2022 (entire population) (%)	0.2	1.0	2.4	11.3	17.9	22.4	
Proportion of people over 50 who have received a booster since 15 September 2022 (%)	0.6	2.4	5.7	27.2	42.8	53.6	
Proportion of people who have received a booster since 15 September 2022 over the age of 85 (%)	6.4	21.7	30.7	56.0	67.6	73.0	

Other respiratory diseases

Data is updated backwards.

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

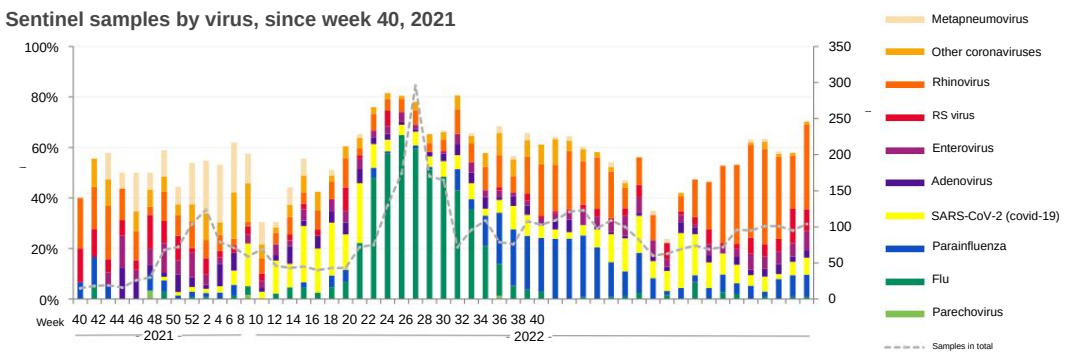
Table 4. Sentinel surveillance: Total number of tests, proportion respiratory virus infections (%) and proportion of different types of respiratory virus infections with 5 or more cases in week 35-40, 2022

Table 4. Sentinel surveillance: total number of samples, proportion detected respiratory virus (%) and proportion
of different types of respiratory viruses with 5 or more cases in weeks 35-40, 2022

	2022 week						Trend week
	35	36	37	38	39	40	35-40
Total number of samples	96	95	101	101	95	104	
Detected respiratory viruses (%)	53.1	63.2	63.4	57.4	57.9	70.2	
Detected cases of RS virus (%)	2.1	6.3	5.0	5.0	13.7	8.7	
Confirmed cases of covid-19 (%)	7.3	4.2	5.9	2.0	5.3	6.7	
Detected cases of rhinovirus (%)	31.3	36.8	37.6	32.7	21.1	33.7	
Detected cases of enterovirus (%)	3.1	6.3	5.0	5.0	5.3	7.7	
Detected cases of parainfluenza (%)	4.2	5.3	2.0	7.9	8.4	8.7	

Figure 1. Respiratory viruses: Sentinel tests across virus types, week 40-40, 2021-2022

Figure 1. Respiratory viruses: Sentinel samples divided by virus, week 40-40, 2021-2022



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.

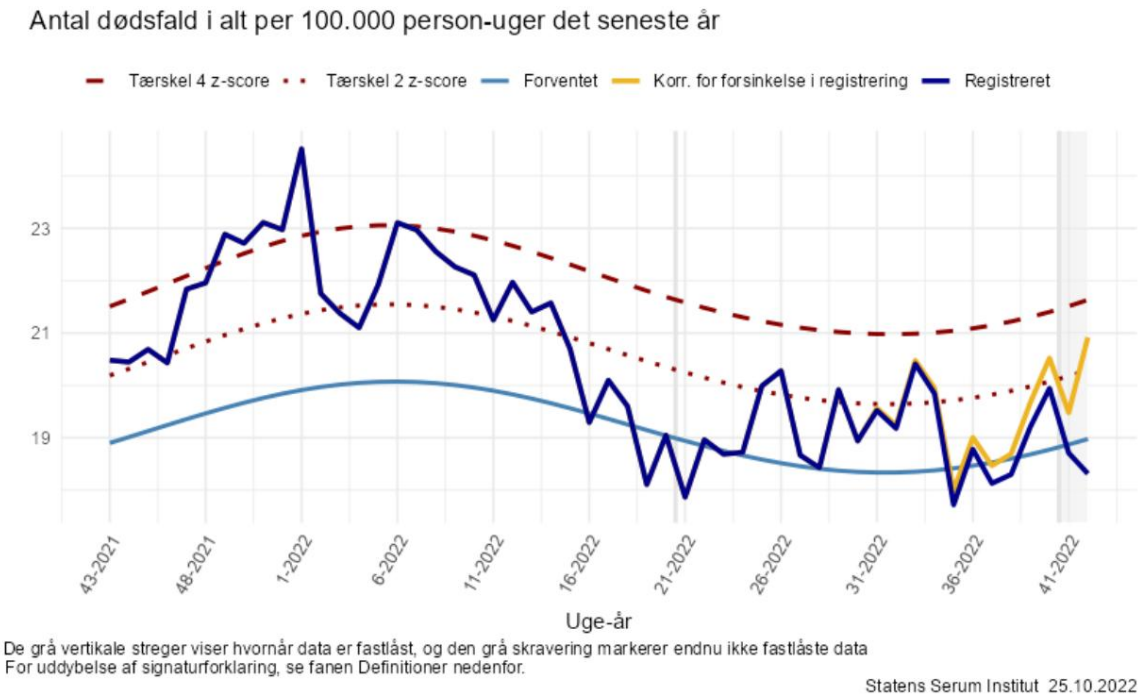
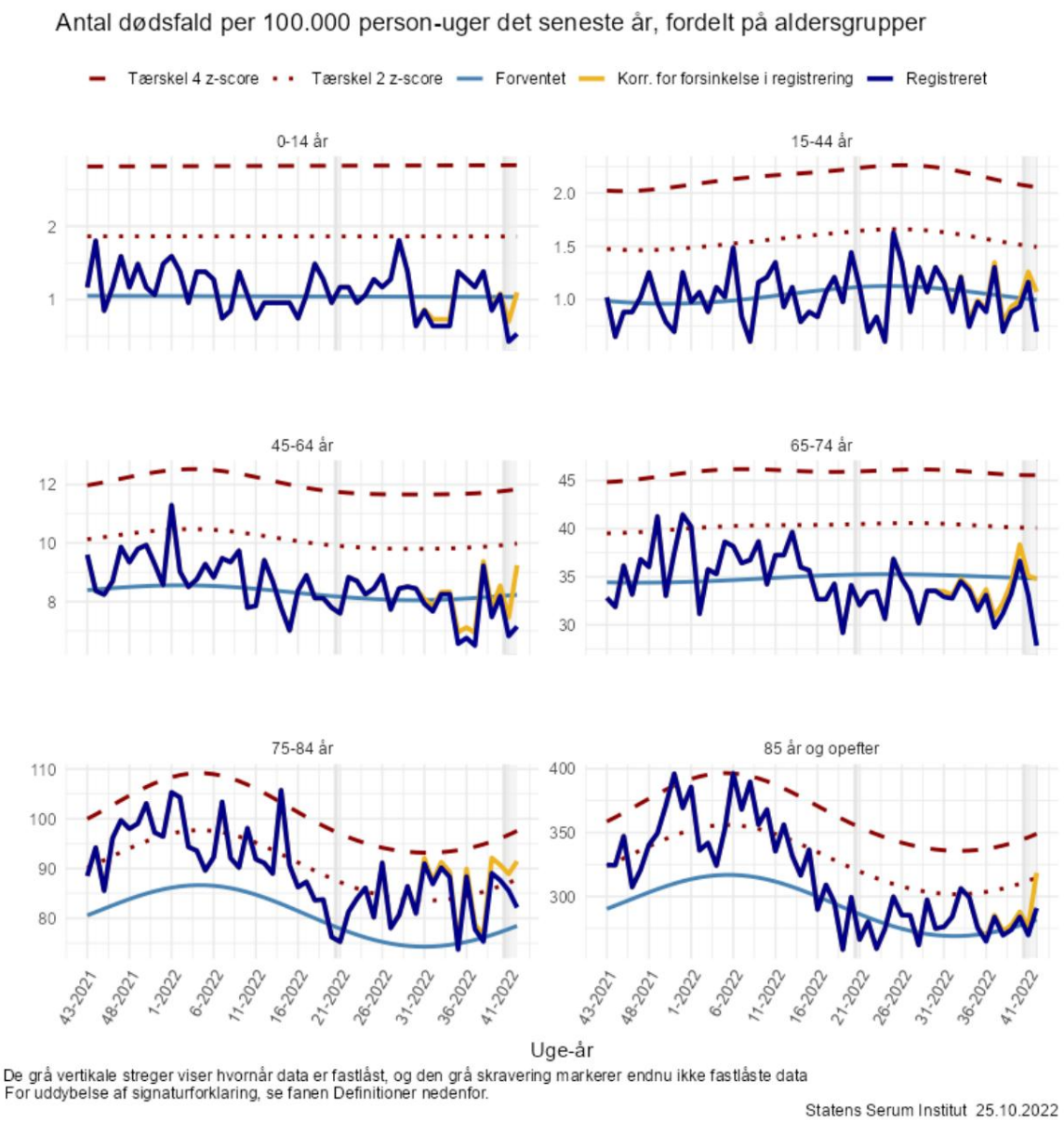


Figure 3. Number of deaths in total per 100,000 person-weeks over the latest year, by age group, 2021-2022.
Figure 3. Total number of deaths per 100,000 person-weeks in the past year, divided by age group, 2021-2022.



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 5. COVID-19: Key numbers and trends by region, weekly, 2022

Table 5. Covid-19: Key figures and trends for regions, broken down by week, 2022

Covid-19	Region	2022 week						Trend week 37-42
		37	38	39	40	41	42	
Incidence per 100,000 inhabitants	The capital	7 9	102	119	122	115	103	
	Central Jutland	7 9	116	141	163	156	128	
	Northern Jutland	105	114	132	146	162	113	
	Zealand	110	147	172	195	191	165	
	Southern Denmark	90	123	169	200	171	150	
Positive percentage	The capital	12.2	14.3	14.8	15.4	14.7	15.3	
	Central Jutland	14.5	19.4	20.9	23.4	21.8	22.8	
	Northern Jutland	14.7	14.8	17.4	18.0	18.6	14.4	
	Zealand	13.0	16.7	16.7	19.5	17.3	18.9	
	Southern Denmark	13.7	17.3	17.6	20.0	17.9	18.3	
New hospital admissions	The capital	122	154	180	201	243	206	
	Central Jutland	5 3	8 5	90	101	118	9 6	
	Northern Jutland	4 4	4 6	60	5 1	7 1	6 3	
	Zealand	4 9	8 9	117	155	181	121	
	Southern Denmark	6 6	80	123	119	150	125	
	Unknown region	3	3	3	9	1	3	

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

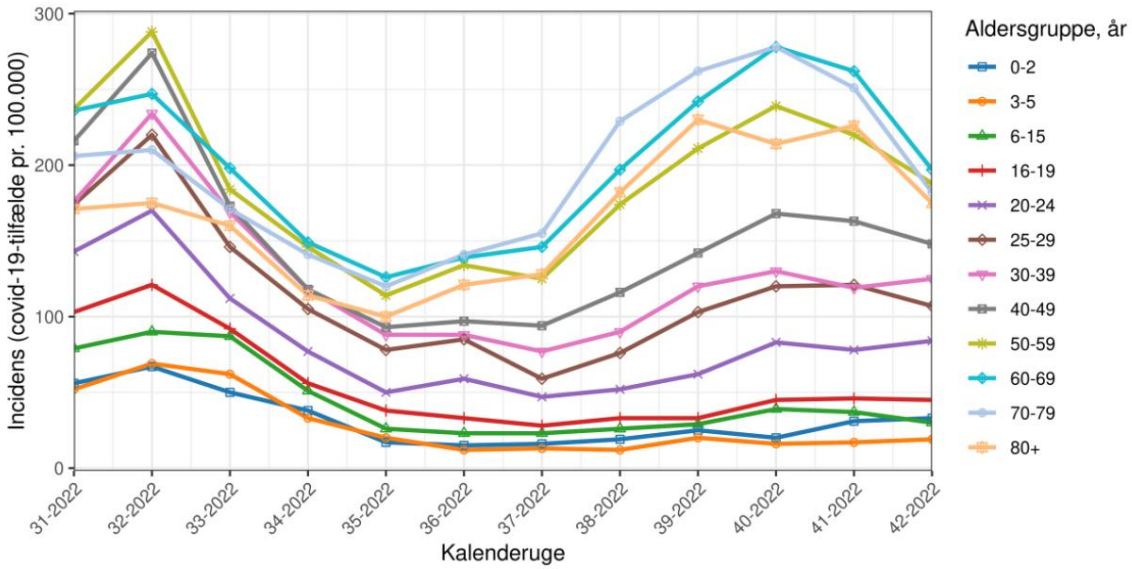


Table 6. Covid-19: Age-specific incidence per 100,000 inhabitants, test rate and positive percentage

Table 6. Covid-19: Age-specific incidence per 100,000 inhabitants, test rate and positive rate

Covid-19, age groups	Incidence, test rate (%), positive rate	2022 week						Trend week
		37	38	39	40	41	42	37-42
0-2 years	Incidence	16	19	25	20	31	33	
	Test rate	0.2	0.3	0.3	0.4	0.5	0.5	
	Positive percentage	6.8	7.0	7.7	4.8	6.6	7.4	
3-5 years	Incidence	13	12	20	16	17	19	
	Test rate	0.2	0.2	0.3	0.4	0.3	0.3	
	Positive percentage	7.0	5.1	6.2	4.7	5.3	6.5	
6-15 years	Incidence	23	26	29	39	37	30	
	Test rate	0.2	0.2	0.3	0.3	0.4	0.2	
	Positive percentage	11.0	11.0	11.0	13.0	11.0	13.0	
16-19 years	Incidence	28	33	33	45	46	45	
	Test rate	0.3	0.3	0.4	0.3	0.4	0.3	
	Positive percentage	9.0	11.0	9.4	13.0	12.0	16.0	
20-24 years	Incidence	47	52	62	83	78	84	
	Test rate	0.5	0.5	0.5	0.6	0.6	0.5	
	Positive percentage	10.0	11.0	12.0	15.0	14.0	16.0	
25-29 years	Incidence	59	76	103	120	121	107	
	Test rate	0.6	0.6	0.7	0.7	0.7	0.6	
	Positive percentage	10.0	12.0	15.0	16.0	17.0	17.0	
30-39 years	Incidence	77	90	120	130	119	125	
	Test rate	0.7	0.7	0.9	0.9	0.9	0.7	
	Positive percentage	11.0	12.0	14.0	15.0	14.0	18.0	
40-49 years	Incidence	94	116	142	168	163	148	
	Test rate	0.8	0.8	1.0	1.0	1.0	0.8	
	Positive percentage	12.0	14.0	14.0	17.0	16.0	19.0	
50-59 years	Incidence	125	174	211	239	220	188	
	Test rate	1.0	1.0	1.2	1.2	1.2	1.0	
	Positive percentage	13.0	17.0	17.0	20.0	18.0	19.0	
60-69 years	Incidence	146	197	242	278	262	197	
	Test rate	1.0	1.1	1.3	1.3	1.2	1.1	
	Positive percentage	15.0	18.0	19.0	22.0	21.0	18.0	
70-79 years	Incidence	155	229	262	278	251	182	
	Test rate	0.9	1.0	1.2	1.2	1.1	1.0	
	Positive percentage	18.0	22.0	23.0	23.0	22.0	18.0	
80+ years	Incidence	128	182	230	214	226	175	
	Test rate	1.6	1.7	2.1	2.2	2.3	2.1	
	Positive percentage	7.9	11.0	11.0	9.8	10.0	8.3	

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

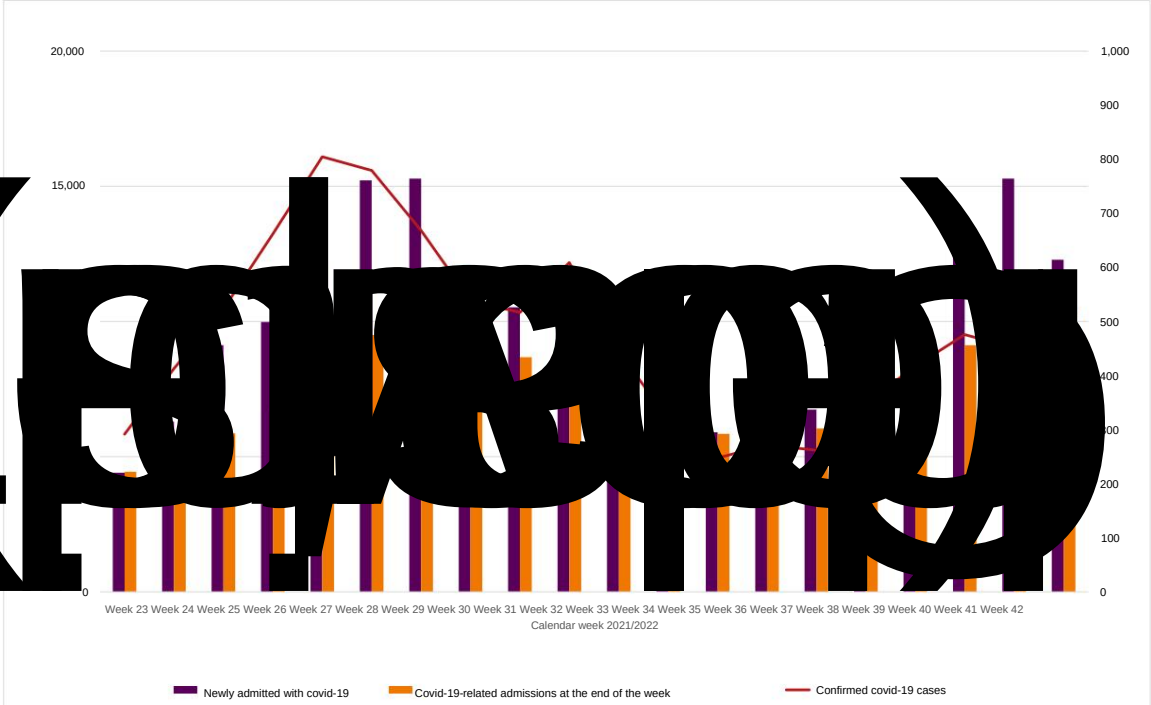
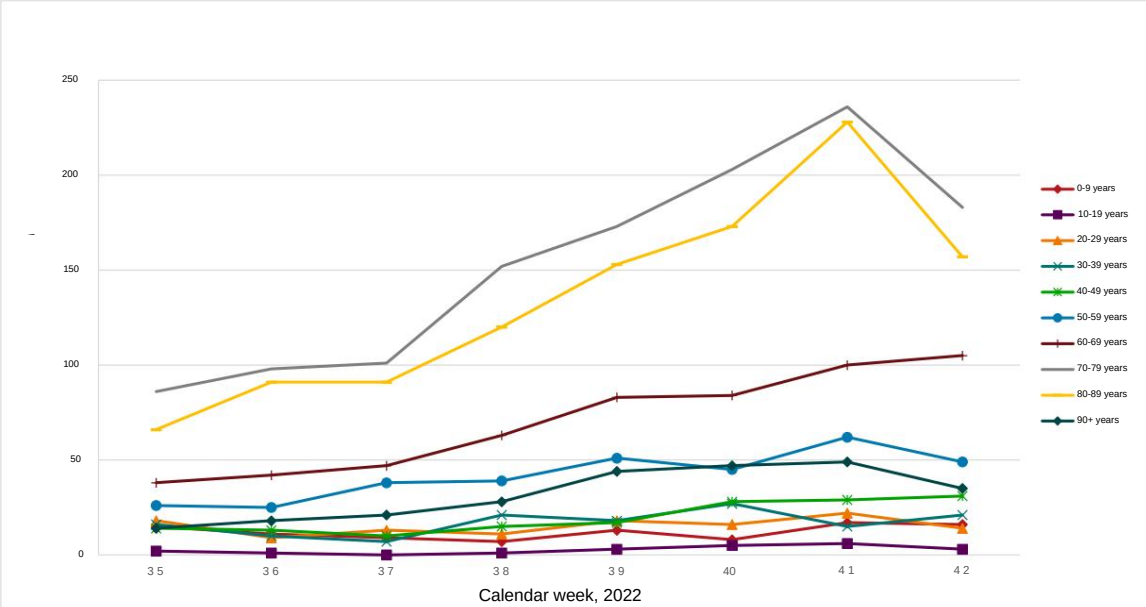


Figure 6. COVID-19: Weekly numbers of PCR-positive hospital admissions by age group

Figure 6. Covid-19: Weekly number of newly hospitalized patients by age group



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 (orange), or admission because of other causes than COVID-19 (green), June 1st 2020 to October 9th 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 9 October 2022

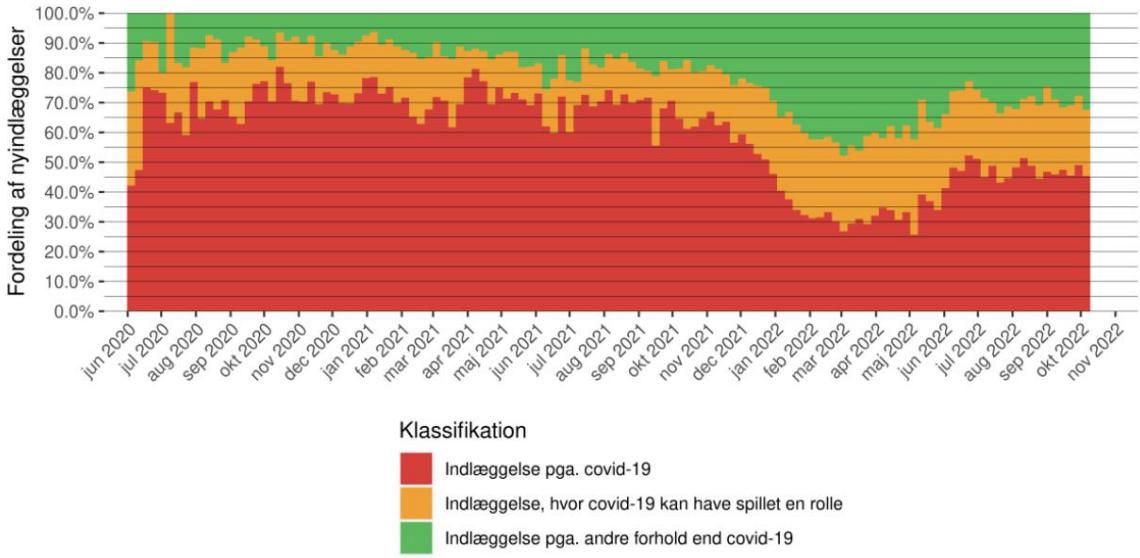


Table 7. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19, admission possibly partly because of COVID-19, or admission because of other causes than COVID-19

Table 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

Diagnosis	2022 week						Trend week
	35	36	37	38	39	40	35-40
Hospitalization due to covid-19	47	46	47	46	49	45	
Hospitalization where covid-19 may have played a role	28	25	21	24	23	22	
Hospitalization due to conditions other than covid-19	25	29	32	31	28	32	

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 due to other causes than COVID-19 (green). By age group, June 1st 2020 to October 9th 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 by age group, 1 June 2020 to 9 October 2022

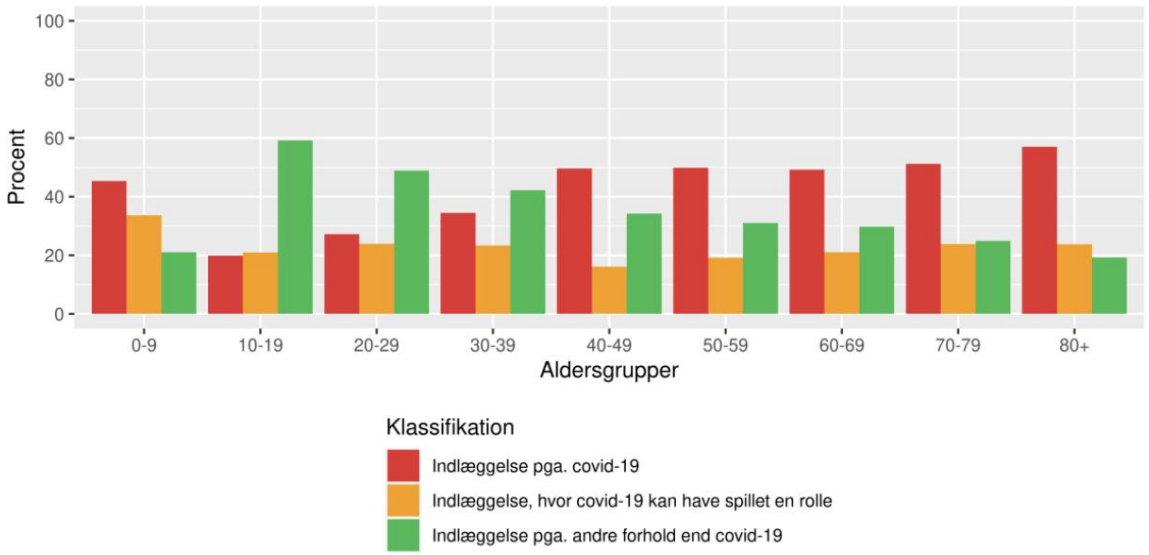


Table 8. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19 (red), admission possibly partly because of COVID-19 (orange), or admission due to other causes than COVID-19 (green). By age groups 0-59 and 60+ years old

Table 8. 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
	35	36	37	38	39	40	35-40
0-59 year olds							
Hospitalization due to covid-19	36.4	41.8	33.8	33.3	36.1	31.7	
Hospitalization where covid-19 may have played a role	29.5	22.4	16.2	22.2	28.6	21.7	
Hospitalization due to conditions other than covid-19	34.1	35.8	50	44.4	35.3	46.7	
60+ year olds							
Hospitalization due to covid-19	51.2	47.0	51.3	48.5	52.4	48.7	
Hospitalization where covid-19 may have played a role	28	25.9	22.2	23.8	21.8	22.3	
Hospitalization due to conditions other than covid-19	20.9	27.1	26.4	27.6	25.8	29.0	

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

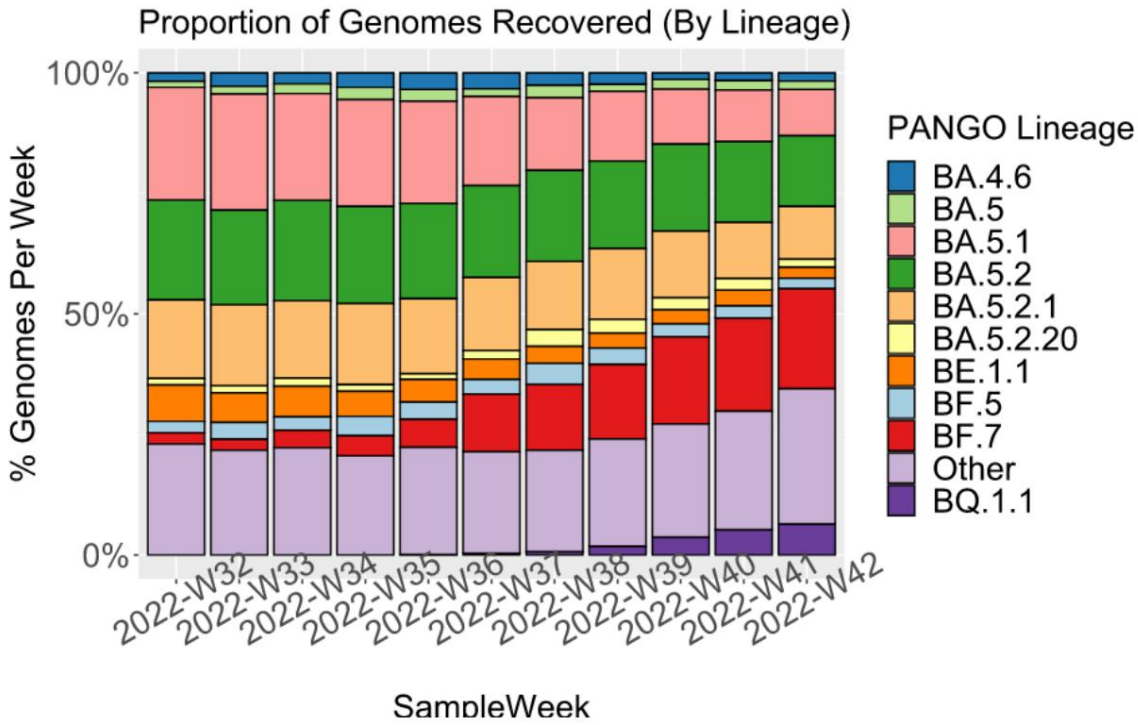


Table 9. COVID-19: The most frequently observed sublineages grouped by overall lineage based on whole-genome sequencing data for the last four weeks, 2022

Table 9. 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					
		39	40	41	42
BA.5	Omicron	3573 (93.63%)	3615 (94.31%)	3248 (93.87%)	2019 (92.15%)
BA.2.75	Omicron	77 (2.02%)	135 (3.54%)	93 (2.69%)	82 (3.74%)
BA.4	Omicron	16 (0.42%)	0 (0.00%)	91 (2.37%)	82 (2.37%)	57 (2.60%)
X	Recombinant		14 (0.37%)	29 (0.84%)	16 (0.73%)
BA.2	Omicron		20 (0.53%)	19 (0.55%)	16 (0.73%)
Other			1 (0.03%)	0 (0.00%)	1 (0.05%)
Total		3816	3833	3460	2191

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.

Table 10. COVID-19: The most frequently observed sub(variants) based on whole-genome sequencing data for the latest four weeks, 2022

Table 10. 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 we					
Lineage	WHO	39	40	41	42
BF.7	Omicron	590 (15.46%)	694 (18.11%)	668 (19.31%)	455 (20.77%)
BA.5.2	Omicron	692 (18.13%)	691 (18.03%)	579 (16.73%)	322 (14.70%)
BA.5.2.1	Omicron	559 (14.65%)	531 (13.85%)	403 (11.65%)	239 (10.91%)
BA.5.1	Omicron	553 (14.49%)	436 (11.37%)	369 (10.66%)	210 (9.58%)
BQ.1.1	Omicron	70 (1.83%)	143 (3.73%)	183 (5.29%)	142 (6.48%)
BE.1.1	Omicron	118 (3.09%)	112 (2.92%)	112 (3.24%)	49 (2.24%)
BQ.1	Omicron	46 (1.21%)	70 (1.83%)	108 (3.12%)	95 (4.34%)
BF.5	Omicron	130 (3.41%)	103 (2.69%)	88 (2.54%)	48 (2.19%)
BA.5.2.20	Omicron	109 (2.86%)	95 (2.48%)	84 (2.43%)	37 (1.69%)
BA.5	Omicron	55 (1.44%)	77 (2.01%)	69 (1.99%)	38 (1.73%)
BA.5.2.6	Omicron	68 (1.78%)	68 (1.77%)	62 (1.79%)	45 (2.05%)
BA.4.6	Omicron	92 (2.41%)	54 (1.41%)	56 (1.62%)	38 (1.73%)
BF.11	Omicron	22 (0.58%)	40 (1.04%)	52 (1.50%)	39 (1.78%)
BA.5.1.10	Omicron	36 (0.94%)	54 (1.41%)	47 (1.36%)	20 (0.91%)
BF.14	Omicron	31 (0.81%)	40 (1.04%)	44 (1.27%)	36 (1.64%)
BA.5.2.3	Omicron	50 (1.31%)	42 (1.10%)	38 (1.10%)	18 (0.82%)
BA.5.9	Omicron	19 (0.50%)	32 (0.83%)	32 (0.92%)	25 (1.14%)
BA.5.2.13	Omicron	13 (0.34%)	24 (0.63%)	31 (0.90%)	21 (0.96%)
BN.1	Omicron	16 (0.42%)	13 (0.34%)	26 (0.75%)	36 (1.64%)
BA.5.1.5	Omicron	24 (0.63%)	25 (0.65%)	22 (0.64%)	24 (1.10%)
BA.5.1.3	Omicron	10 (0.26%)	18 (0.47%)	18 (0.52%)	9 (0.41%)
XBB	Omicron	8 (0.21%)	5 (0.13%)	17 (0.49%)	11 (0.50%)
BA.4.1	Omicron	21 (0.55%)	21 (0.55%)	16 (0.46%)	10 (0.46%)
BA.2.3.20	Omicron	15 (0.39%)	9 (0.23%)	15 (0.43%)	11 (0.50%)
BA.5.2.9	Omicron	16 (0.42%)	17 (0.44%)	15 (0.43%)	4 (0.18%)
BA.5.3.1	Omicron	19 (0.50%)	18 (0.47%)	15 (0.43%)	10 (0.46%)
BA.5.1.21	Omicron	23 (0.60%)	27 (0.70%)	14 (0.40%)	1 (0.05%)
BA.5.1.2	Omicron	20 (0.52%)	12 (0.31%)	13 (0.38%)	0 (0.00%)
BA.5.1.4	Omicron	16 (0.42%)	7 (0.18%)	13 (0.38%)	11 (0.50%)
BM.1.1	Omicron	9 (0.24%)	12 (0.31%)	13 (0.38%)	14 (0.64%)
BQ.1.3	Omicron	0 (0.00%)	6 (0.16%)	13 (0.38%)	3 (0.14%)
BA.5.2.24	Omicron	10 (0.26%)	11 (0.29%)	11 (0.32%)	17 (0.78%)
BE.1	Omicron	46 (1.21%)	21 (0.55%)	11 (0.32%)	3 (0.14%)
BF.10	Omicron	30 (0.79%)	20 (0.52%)	10 (0.29%)	10 (0.46%)
BA.2.75.2	Omicron	28 (0.73%)	27 (0.70%)	9 (0.26%)	12 (0.55%)

BA.5.1.17	Omicron	4 (0.10%)	3 (0.08%)	9 (0.26%)	5 (0.23%)
BA.5.1.9	Omicron	0 (0.00%)	2 (0.05%)	9 (0.26%)	0 (0.00%)
BA.5.2.21	Omicron	25 (0.66%)	21 (0.55%)	9 (0.26%)	7 (0.32%)
BA.5.1.12	Omicron	8 (0.21%)	2 (0.05%)	8 (0.23%)	2 (0.09%)
BA.5.5	Omicron	16 (0.42%)	9 (0.23%)	8 (0.23%)	2 (0.09%)
BA.5.6	Omicron	21 (0.55%)	12 (0.31%)	7 (0.20%)	7 (0.32%)
BQ.1.2	Omicron	3 (0.08%)	3 (0.08%)	7 (0.20%)	12 (0.55%)
XAZ	Recombinant	6 (0.16%)	7 (0.18%)	7 (0.20%)	3 (0.14%)
BA.2.75.1	Omicron	2 (0.05%)	5 (0.13%)	6 (0.17%)	3 (0.14%)
BF.13	Omicron	3 (0.08%)	18 (0.47%)	6 (0.17%)	5 (0.23%)
BA.2.75.6	Omicron	3 (0.08%)	7 (0.18%)	5 (0.14%)	2 (0.09%)
BA.5.10.1	Omicron	3 (0.08%)	8 (0.21%)	5 (0.14%)	0 (0.00%)
BA.5.2.18	Omicron	10 (0.26%)	10 (0.26%)	5 (0.14%)	4 (0.18%)
BA.5.2.7	Omicron	8 (0.21%)	7 (0.18%)	5 (0.14%)	6 (0.27%)
BF.4	Omicron	12 (0.31%)	16 (0.42%)	5 (0.14%)	1 (0.05%)
BL.2	Omicron	5 (0.13%)	7 (0.18%)	5 (0.14%)	2 (0.09%)
BR.1	Omicron	1 (0.03%)	7 (0.18%)	5 (0.14%)	5 (0.23%)
XAY	Participate	1 (0.03%)	2 (0.05%)	5 (0.14%)	1 (0.05%)
BA.4	Omicron	5 (0.13%)	5 (0.13%)	4 (0.12%)	4 (0.18%)
BA.5.2.22	Omicron	7 (0.18%)	1 (0.03%)	4 (0.12%)	2 (0.09%)
BA.5.2.23	Omicron	0 (0.00%)	0 (0.00%)	4 (0.12%)	3 (0.14%)
BA.5.3.3	Omicron	11 (0.29%)	11 (0.29%)	4 (0.12%)	4 (0.18%)
BA.5.5.1	Omicron	2 (0.05%)	5 (0.13%)	4 (0.12%)	0 (0.00%)
BL.1	Omicron	4 (0.10%)	2 (0.05%)	4 (0.12%)	6 (0.27%)
BM.1.1.1	Omicron	0 (0.00%)	4 (0.10%)	4 (0.12%)	0 (0.00%)
BM.4.1.1	Omicron	0 (0.00%)	3 (0.08%)	4 (0.12%)	2 (0.09%)
BA.4.6.1	Omicron	2 (0.05%)	3 (0.08%)	3 (0.09%)	4 (0.18%)
BF.1	Omicron	6 (0.16%)	1 (0.03%)	3 (0.09%)	1 (0.05%)
BA.4.7	Omicron	5 (0.13%)	8 (0.21%)	2 (0.06%)	0 (0.00%)
BA.5.1.1	Omicron	4 (0.10%)	5 (0.13%)	2 (0.06%)	2 (0.09%)
BA.5.1.11	Omicron	0 (0.00%)	0 (0.00%)	2 (0.06%)	1 (0.05%)
BA.5.2.25	Omicron	2 (0.05%)	5 (0.13%)	2 (0.06%)	5 (0.23%)
BE.1.1.1	Omicron	4 (0.10%)	3 (0.08%)	2 (0.06%)	9 (0.41%)
BF.21	Omicron	3 (0.08%)	0 (0.00%)	2 (0.06%)	0 (0.00%)
BS.1	Omicron	0 (0.00%)	0 (0.00%)	2 (0.06%)	0 (0.00%)
CITY.1	Omicron	1 (0.03%)	5 (0.13%)	2 (0.06%)	3 (0.14%)
BA.2.75.5	Omicron	5 (0.13%)	2 (0.05%)	1 (0.03%)	0 (0.00%)
BA.4.4	Omicron	5 (0.13%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BA.5.1.18	Omicron	1 (0.03%)	2 (0.05%)	1 (0.03%)	0 (0.00%)
BA.5.2.10	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BA.5.2.12	Omicron	0 (0.00%)	2 (0.05%)	1 (0.03%)	0 (0.00%)
BA.5.2.16	Omicron	5 (0.13%)	1 (0.03%)	1 (0.03%)	1 (0.05%)
BA.5.2.2	Omicron	0 (0.00%)	2 (0.05%)	1 (0.03%)	0 (0.00%)

BA.5.2.8	Omicron	1 (0.03%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BA.5.8	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	2 (0.09%)
BE.3	Omicron	9 (0.24%)	6 (0.16%)	1 (0.03%)	1 (0.05%)
BF.12	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BF.2	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BF.25	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BF.8	Omicron	2 (0.05%)	3 (0.08%)	1 (0.03%)	1 (0.05%)
B.1.1.529	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
B.1.179	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.2	Omicron	0 (0.00%)	3 (0.08%)	0 (0.00%)	0 (0.00%)
BA.2.1	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.2.75	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.2.75.4	Omicron	1 (0.03%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.2.75.7	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.2.9	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	1 (0.05%)
BA.4.1.8	Omicron	3 (0.08%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.4.1.9	Omicron	2 (0.05%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BA.5.1.15	Omicron	0 (0.00%)	5 (0.13%)	0 (0.00%)	0 (0.00%)
BA.5.1.19	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.1.6	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.10	Omicron	0 (0.00%)	1 (0.03%)	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	0 (0.00%)	1 (0.03%)	0 (0.00%)	1 (0.05%)
BA.5.2.4	Omicron	2 (0.05%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.3	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.6.1	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.7	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BE.1.2	Omicron	3 (0.08%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BE.1.2.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BE.1.3	Omicron	1 (0.03%)	1 (0.03%)	0 (0.00%)	2 (0.09%)
BE.2	Omicron	5 (0.13%)	6 (0.16%)	0 (0.00%)	0 (0.00%)
BF.15	Omicron	10 (0.26%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BF.19	Omicron	1 (0.03%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BH.1	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BL.3	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BM.5	Omicron	1 (0.03%)	2 (0.05%)	0 (0.00%)	0 (0.00%)
BU.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BV.1	Omicron	2 (0.05%)	2 (0.05%)	0 (0.00%)	0 (0.00%)
BV.2	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BZ.1	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	2 (0.09%)
XBC	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
Total		3816	3833	3460	2191

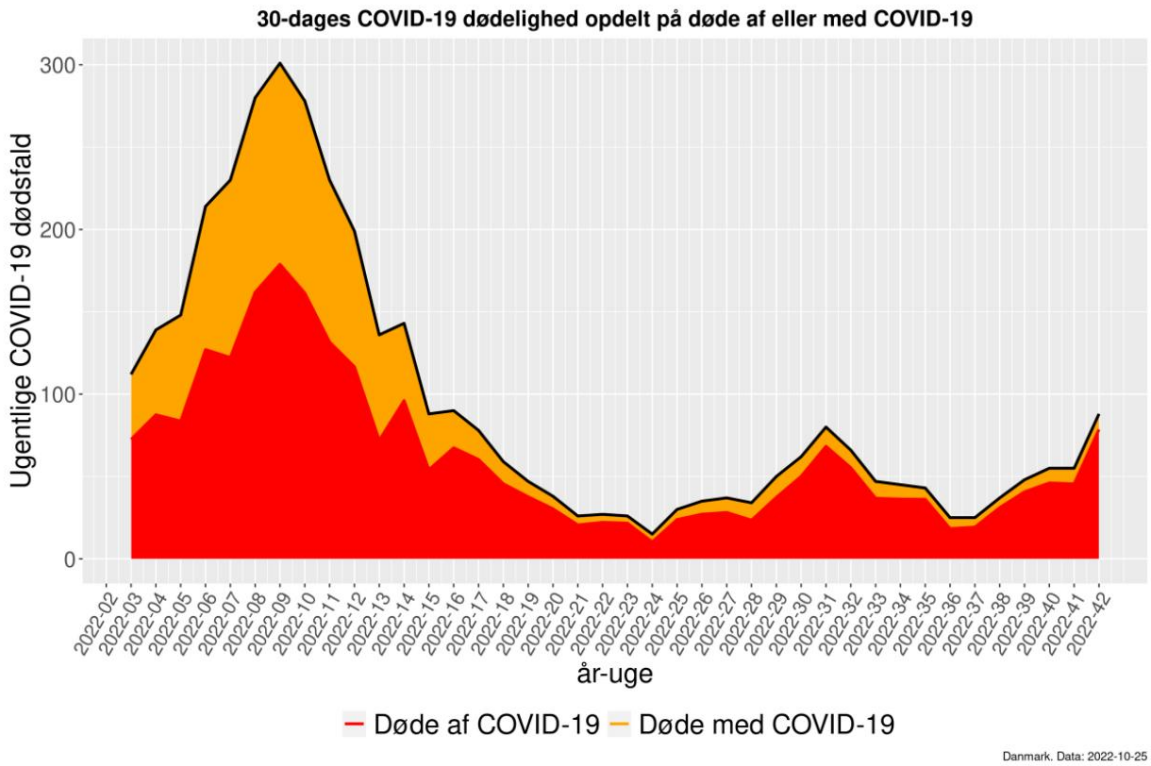
Note to table: Number of variants may change when more samples are sequenced and included in the table. The last week's figure is incomplete and must interpreted with reservations.

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

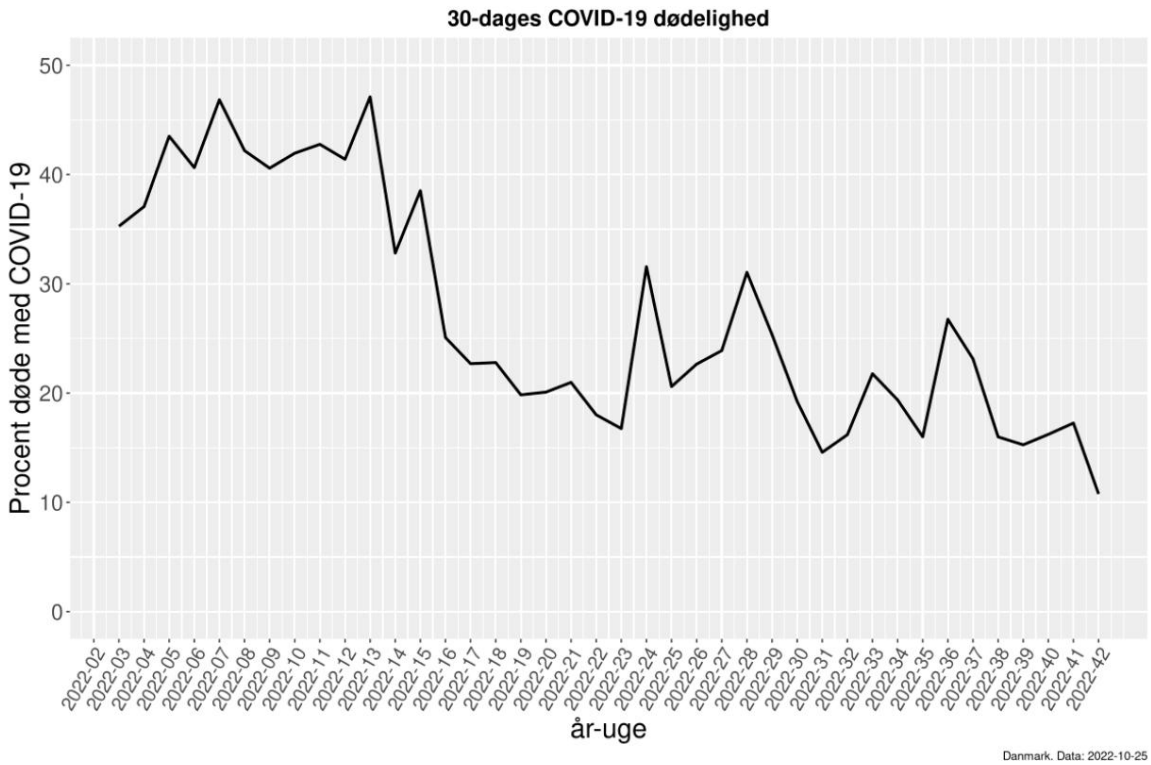
Figure 10. Covid-19: Estimated deaths from or with covid-19 (red) and proportion of all covid-19 registered deaths calculated as non-covid-19-related (orange), by week, 2022



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

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.

Table 11. 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

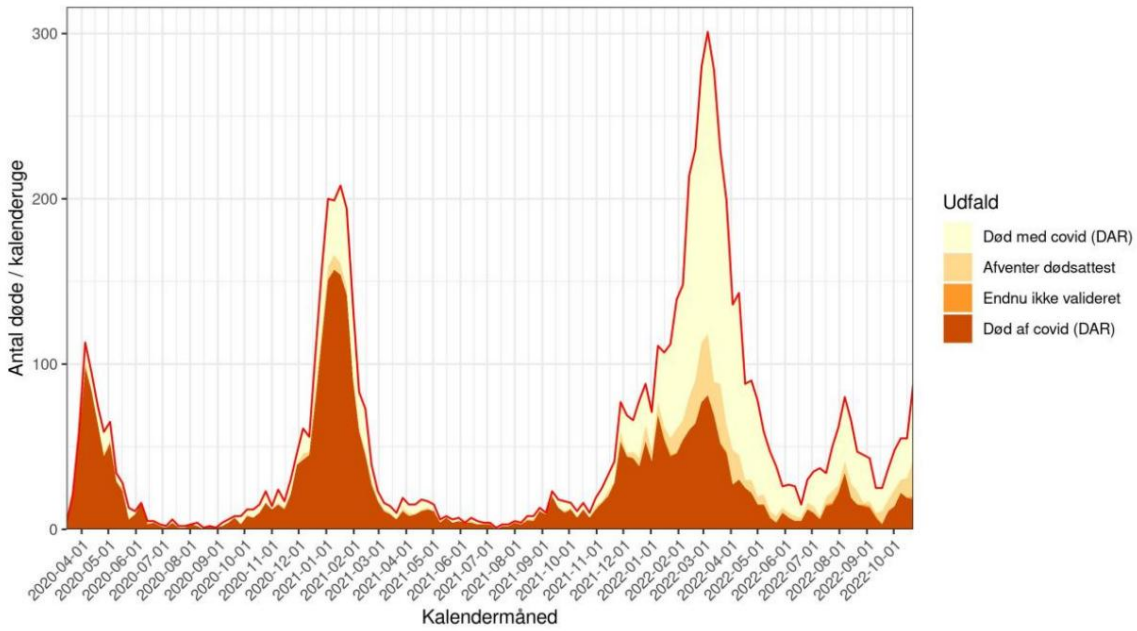
Table 11. Covid-19: Estimated deaths with a positive covid-19 PCR test within 30 days, total, deaths "from" and "with" covid-19 and proportion of deaths with covid-19

2022, week	Death with positive covid-19 PCR test within 30 days, total	Death "of" covid-19	Death "with" covid-19	Proportion (%) of deaths "with" covid-19
30	62	50	12	19.2
31	80	68	12	14.6
32	66	55	11	16.2
33	47	37	10	21.8
34	45	36	9	19.4
35	43	36	7	16.0
36	25	18	7	26.8
37	25	19	6	23.1
38	37	31	6	16.0
39	48	41	7	15.3
40	55	46	9	16.2
41	55	46	9	17.3
42	88	79	9	10.8

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

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

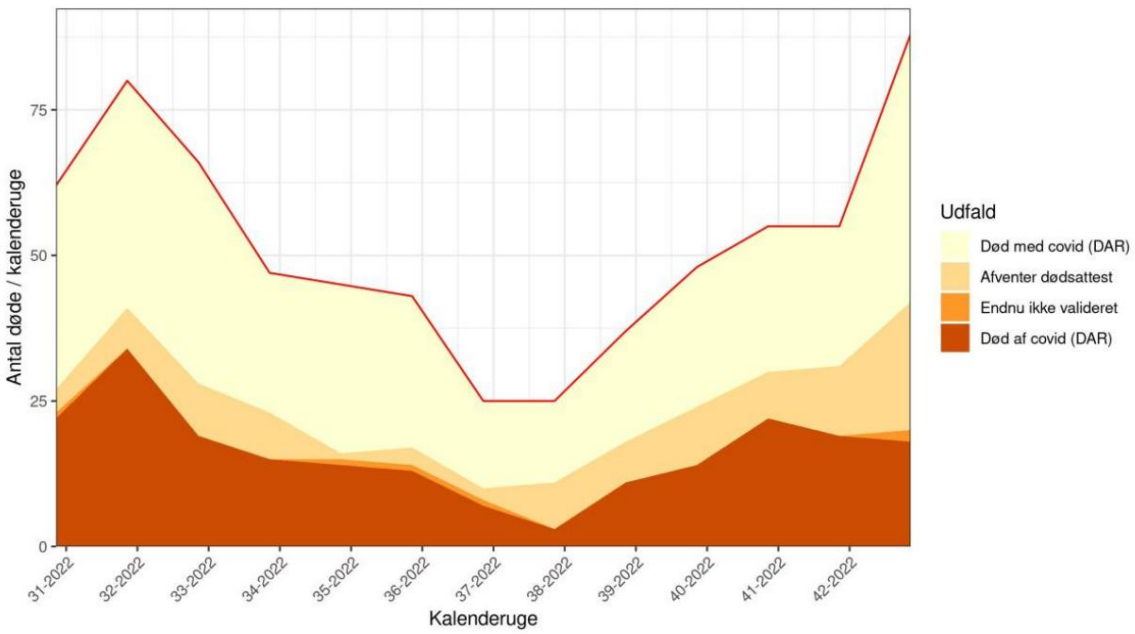
Figure 12. Covid-19: Deaths from and including covid-19 based on death certificates, 2020-2022



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

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.

Hospital outbreak

Table 12. COVID-19: Outbreaks at hospitals

Table 12. Covid-19: hospital outbreaks

Hospital outbreak	2022 week					
	37	38	39	40	41	42
Number of outbreak reports (out of 12 infection hygiene units)	3	4	4	4	5	8
Of this, no outbreaks			2	3	3	3
Of which units with outbreaks		1	2	1	2	5
Total number of outbreaks	300	3 4	3	1	5	9
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	1
Number of minor outbreaks (ÿ10 infected, patients and/or staff)	0	3	2	1	5	8

Nursing home

Data is updated backwards.

Table 13. COVID-19 at nursing homes

Table 13. Covid-19 in nursing homes

Covid-19, nursing home	2022 week						Trend week
	37	38	39 40		41	42	37-42
Confirmed cases among residents	119	186	227	173	133	132	
Test rate among residents (%)	7.2	6.5	8.4	9.4	10.0	9.4	
Positive percentage among residents	4.1	7.0	6.6	4.5	3.3	3.5	
Deaths among confirmed cases	11	14	10	18	7	20	
Nursing homes with confirmed cases	52	64	83	75	70	63	
Proportion of people who have received boosters since 15 September 2022 Nursing home residents (%)	16.4	66.9	82.6	84.7	85.9	86.4	

Table 14. COVID-19 at nursing homes by region

Table 14. Covid-19 in nursing homes divided by region

Covid-19, nursing home	Region	2022 week						Trend week
		37	38	39 40		41	42	37-42
Confirmed cases among residents	The capital	3 3	8 3	7 3	6 2	4 1	3 8	
	Central Jutland	3 8	1 1	4 2	1 4	1 8	2 4	
	Northern Jutland	1 0	1 9	1 8	1 8	3 2	2 4	
	Zealand	2 7	1 9	2 4	1 6	1 6	7	
	Southern Denmark	1 1	5 4	70	6 3	2 6	3 9	
Test rate among residents (%)	The capital	8.7	9.4	9.4	9.5	10.1	8.7	
	Central Jutland	4.4	2.3	4.2	4.8	6.0	5.0	
	Northern Jutland	8.2	7.2	7.5	9.6	10.7	12.4	
	Zealand	7.4	5.0	6.6	7.6	11.2	9.4	
	Southern Denmark	7.6	7.6	13.0	15.2	13.0	13.4	
Positive percentage among residents	The capital	3.1	7.1	6.2	5.3	3.3	3.5	
	Central Jutland	9.5	5.3	11.0	3.2	3.2	5.2	
	Northern Jutland	2.5	5.5	4.9	3.9	6.2	4.0	
	Zealand	6.6	6.8	6.5	3.8	2.5	1.3	
	Southern Denmark	1.7	8.2	6.2	4.8	2.3	3.4	

Table 15. COVID-19: Number of residents at nursing homes admitted to hospitals

Table 15. Covid-19: number of newly admitted nursing home residents in hospital

Covid-19	Region	2022 week						Trend week
		37	38	39 40		41	42	37-42
Newly admitted nursing home residents in hospital	The capital	4	9	1 1	9	1 3	3	
	Central Jutland	4	4	3	1	3	3	
	Northern Jutland	1	4	2	1	3	2	
	Zealand	3	2	8	4	3	3	
	Southern Denmark	4	5	9	1	3	2	
	Denmark	1 6	2 4	3 3	1 6	2 5	1 3	

Special personnel groups

Data is updated backwards.

Table 16. COVID-19: Confirmed cases, incidence per 100,000 inhabitants, test rate and positive percentage among specific employees **Table 16. Covid-19: confirmed cases ,** incidence per 100,000 inhabitants, test rate and positive percentage among specific employee groups

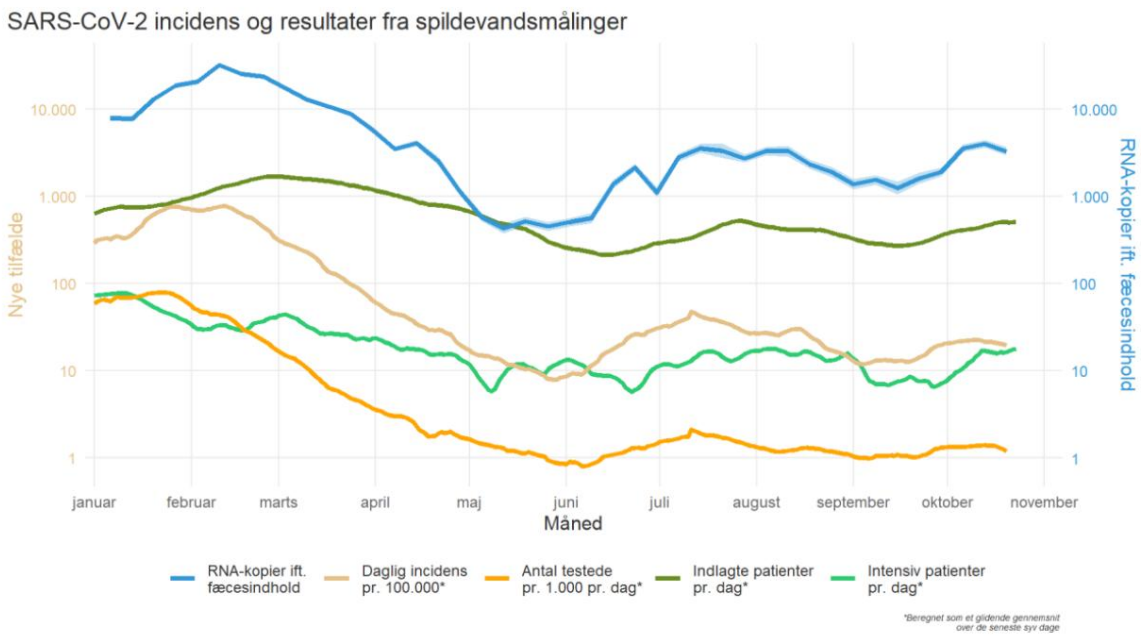
covid-19, special personnel groups	Confirmed cases, incidence per 100,000, test rate (%), positive percentage	2022 week						Trend week
		37	38	39	40	41	42	37-42
Social sector	Confirmed cases	329	419	514	609	602	521	
	Incidence	182	232	285	337	333	289	
	Test rate	4.4	4.1	5.2	4.6	5.0	3.7	
	Positive percentage	4.2	5.7	5.4	7.4	6.6	7.9	
Health sector	Confirmed cases	264	345	427	491	436	362	
	Incidence	149	195	240	275	244	203	
	Test rate	1.1	1.3	1.5	1.5	1.5	1.2	
	Positive percentage	13.4	15.3	15.7	18.9	16.6	17.4	

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

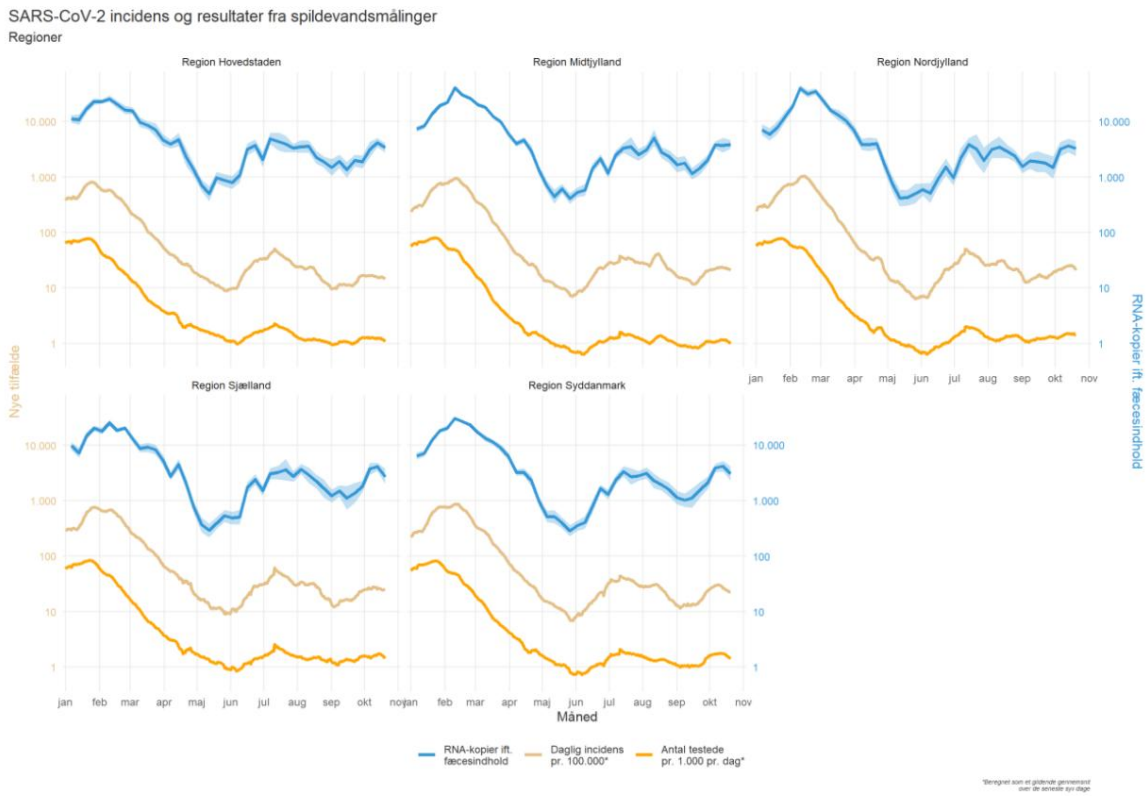
Figure 14. Covid-19: incidence and results from wastewater measurements, 2022



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.

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.

Figure 16. COVID-19. National trends from waste-water surveillance, week 34-42

Figure 16. Covid-19: national trend in waste-water surveillance, week 34-42

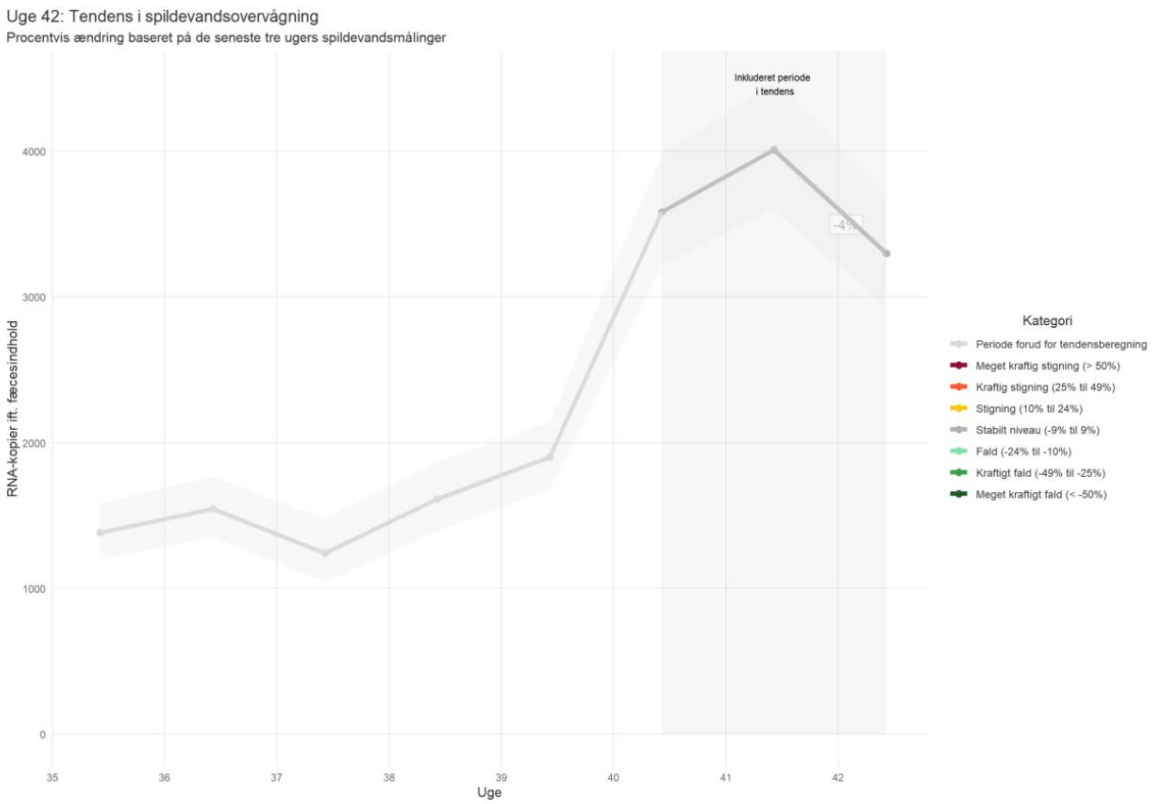


Figure 17. COVID-19. Trends from waste-water surveillance by region, week 34-42

Figure 17. Covid-19: regional trends in waste-water surveillance, week 34-42

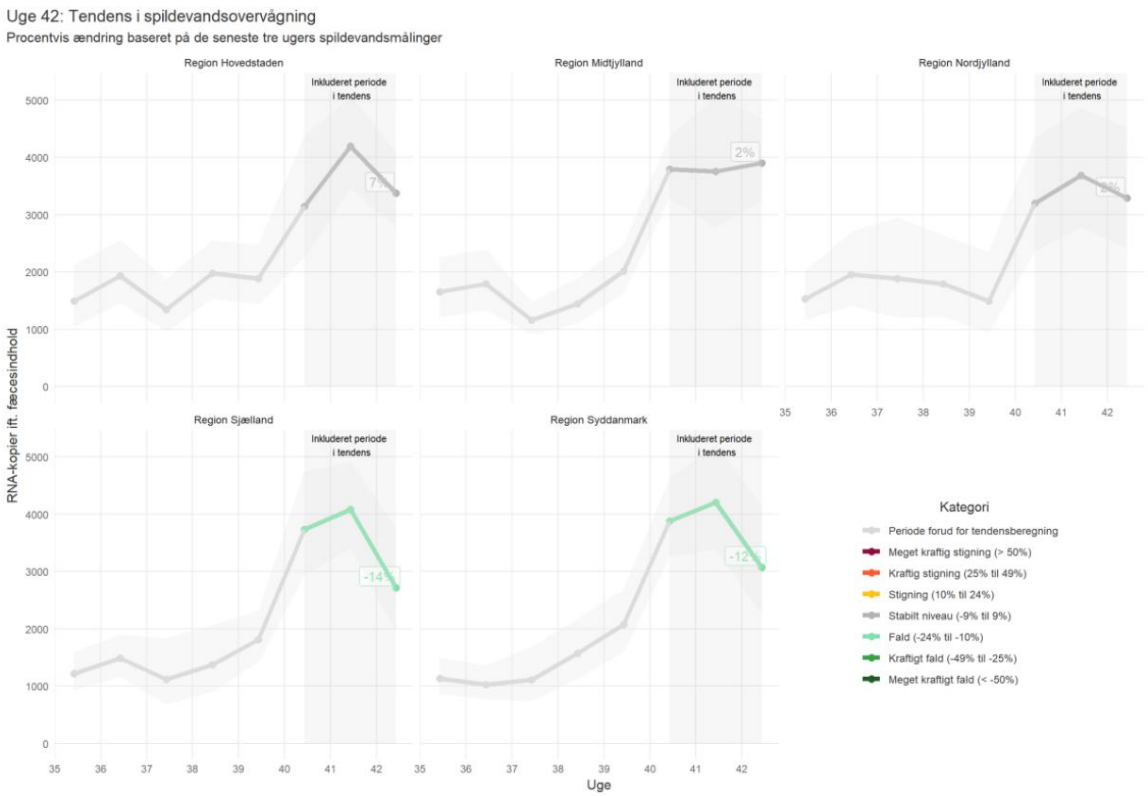
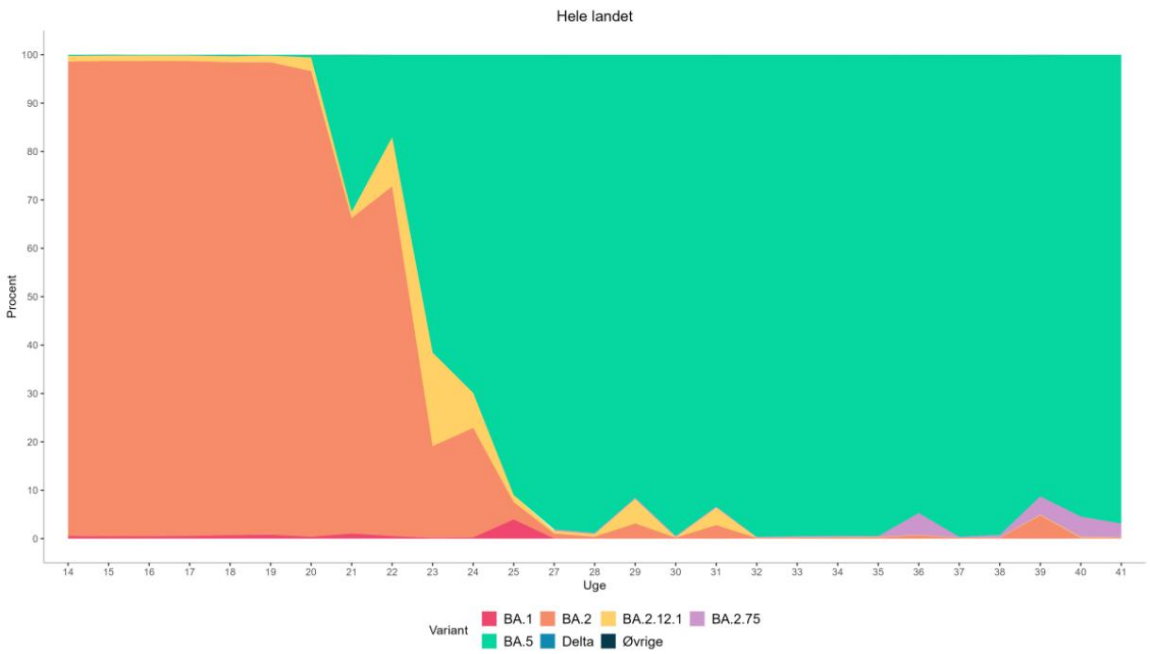


Figure 18. COVID-19: Variant distribution of VOC (Variants Of Concern)/ VOI (Variants Of Interest) in waste water in Denmark from week 14, 2022.

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.



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%).

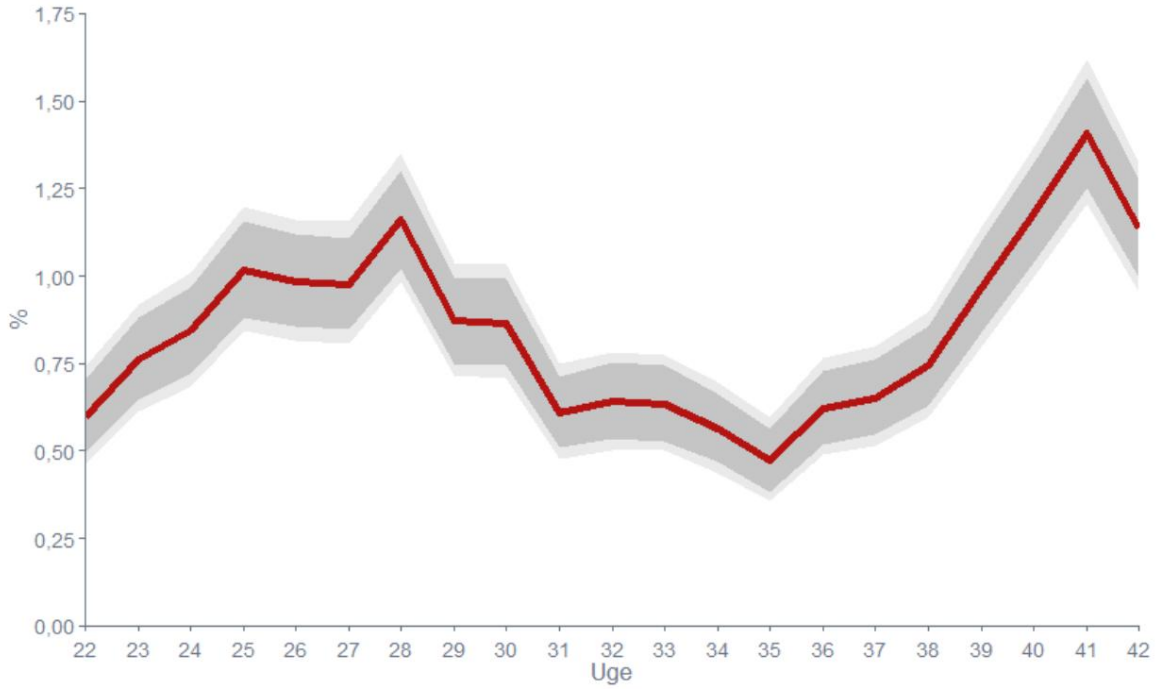


Table 17. COVIDmeter: Number of participants, proportion of presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants and self-reported test rate and positive percentage among presumably infected with COVID-19

Table 17. 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						Trend week
		37	38	39 40		41	42	37-42
All participants in COVIDmeter	Number of participants	21,624 21,917 21,911			22,022 21,911		22.002	
	Presumed infected with covid-19 (%)	0.7	0.7	1.0	1.2	1.4	1.1	
	Test rate (%)*	4.1	4.6	5.5	6.0	5.8	5.0	
	Positive rate*	1 8	1 7	2 1	2 2	2 5	2 1	
Presumably infected with covid-19	Test rate (%)*	5 1	50	6 5	5 6	50	4 9	
	Positive rate*	5 8	5 1	5 9	6 1	6 2	5 6	

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

Table 18. COVIDmeter: Proportion presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants by region

Table 18. COVIDmeter: proportion presumed to be infected with covid-19, self-reported test rate and positive percentage among all the COVIDmeter participants by region

COVID meter	Region	2022 week						Trend week
		37	38	39 40		41	42	37-42
Number of participants	The capital	7,933	8,002	8,090 8,037		8,022	8,009	
	Central Jutland	4,850	4,968	4,919 4,975		4,937	4,976	
	Northern Jutland	1,982	2,039	2.012	2,077	2,022	2,048	
	Zealand	3,077	3,096	3,107 3,099		3,068	3,145	
	Southern Denmark	3,782	3,812	3,783 3,834		3,862	3,824	
Presumed infected with covid-19 (%)	The capital	4.0	4.5	5.4	6.1	5.7	5.0	
	Central Jutland	3.7	5.1	5.3	5.9	5.8	4.5	
	Northern Jutland	4.5	4.8	5.4	6.4	6.0	5.0	
	Zealand	4.5	4.3	5.5	5.8	5.9	5.4	
	Southern Denmark	4.0	4.7	5.8	6.2	6.1	5.4	
Test rate (%)*	The capital	0.6	0.9	1.0	1.2	1.6	1.0	
	Central Jutland	0.6	0.6	0.9	1.1	1.2	1.2	
	Northern Jutland	0.6	1.1	0.8	1.2	1.7	1.3	
	Zealand	0.6	0.8	0.9	1.2	1.1	1.1	
	Southern Denmark	0.8	0.4	1.2	1.2	1.2	1.2	
Positive rate*	The capital	19.7	17.9	18.6	18.9	22.3	20.7	
	Central Jutland	18.3	16.7	23.6	21.4	22.2	19.9	
	Northern Jutland	17.8	19.6	22.2	23.3	28.9	18.6	
	Zealand	13.0	13.6	22.8	22.9	28.2	22.5	
	Southern Denmark	19.1	16.8	19.9	29.7	26.9	23.7	

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

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

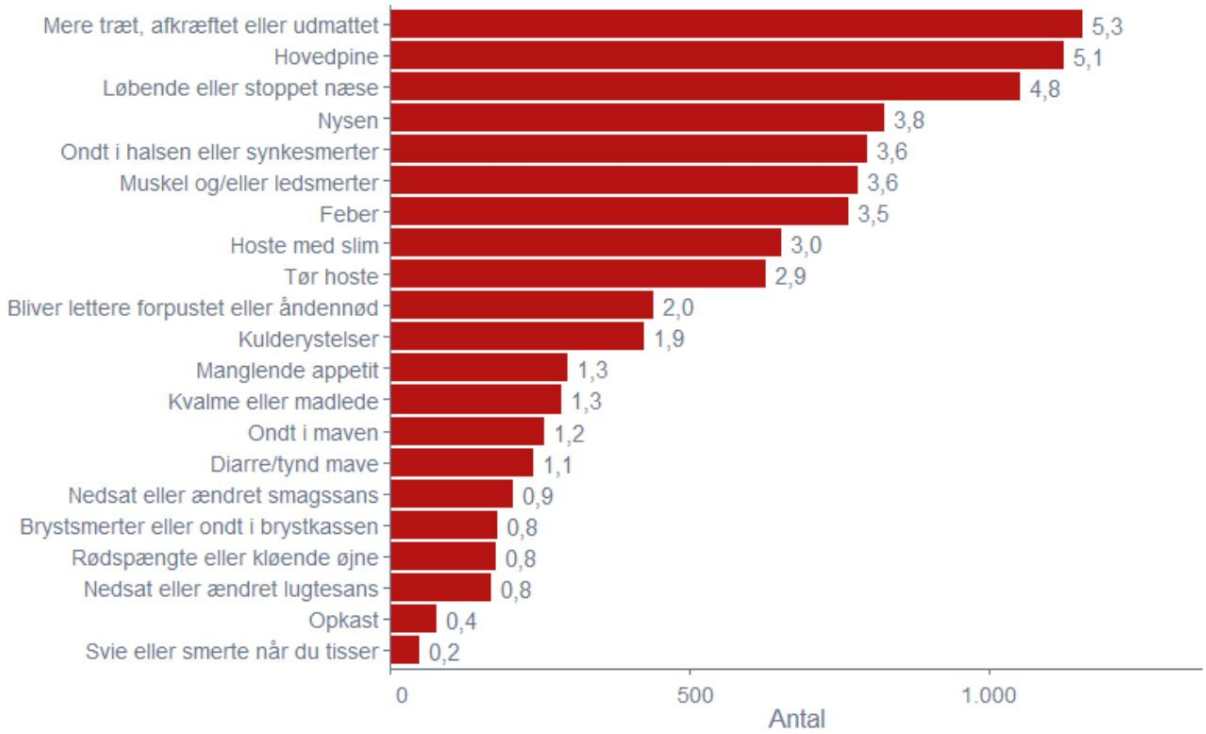
Table 19. COVIDmeter: age-specific proportion presumed infected with covid-19, self-reported test rate and positive percentage among the COVIDmeter participants by week, 2022

COVIDmeter, age groups	Number of participants, proportion suspected of being infected with covid-19 (%), test rate (%) and positive percentage	2022 week						Trend week 37-42
		37	38	39	40	41	42	
40-49 years	Number of participants	1,869	1,888	1,892	1,871	1,871	1,855	
	Presumed infected with covid-19 (%)	0.9	0.6	1.4	1.4	1.9	2.0	
	Test rate (%)*	7.0	6.8	8.6	9.8	9.4	8.8	
	Positive rate*	12.2	12.5	8.0	17.9	22.3	27.4	
50-59 years	Number of participants	4,925	5,018	5,009	5,063	4,989	5.103	
	Presumed infected with covid-19 (%)	1.0	1.0	1.2	1.4	1.5	1.2	
	Test rate (%)*	5.7	6.8	7.3	7.8	8.1	6.7	
	Positive rate*	16.8	13.2	20.2	20.8	20.3	19.4	
60-69 years	Number of participants	7,667	7,755	7,746	7,831	7,818	7,827	
	Presumed infected with covid-19 (%)	0.7	0.6	0.8	1.3	1.4	1.1	
	Test rate (%)*	3.8	4.2	5.3	5.8	5.8	5.0	
	Positive rate*	16.7	15.2	22.9	22.7	24.0	18.5	
70+ years	Number of participants	6,583	6,684	6,685	6,677	6,709	6,677	
	Presumed infected with covid-19 (%)	0.3	0.7	0.8	0.8	1.1	0.8	
	Test rate (%)*	2.3	2.6	3.1	3.5	3.0	2.7	
	Positive rate*	26.7	29.8	26.4	29.9	36.3	25.7	

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

Figure 20. COVID-19: Symptoms reported to COVIDmeter by number in week 42, 2022.

Figure 20. Covid-19: symptoms reported to the COVIDmeter divided by number in week 42, 2022.



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 indicated
- 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.

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.

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.
- 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 monitoring of the SARS-CoV-2 epidemic, SSI has defined a covid-19 related hospitalization as a hospitalization among persons with a positive SARS-CoV-2 test taken from 14 days before admission or during admission. If a positive SARS-CoV-2 test is recorded in the period 14 days before to 48 hours after the time of admission, the covid-19-related hospitalization starts at the time of admission. Patients who have had a test positive for SARS-CoV-2 more than 48 hours after the time of admission are also registered with a covid-

19-related hospitalization, but here the date of hospitalization is considered to be equal to the test date (the period of 14 days before to 48 hours after has been 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 past 30 days are counted. 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.

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 persons 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 does not contain corrections for industry affiliation.

Sewage

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.

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 it
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.

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.

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