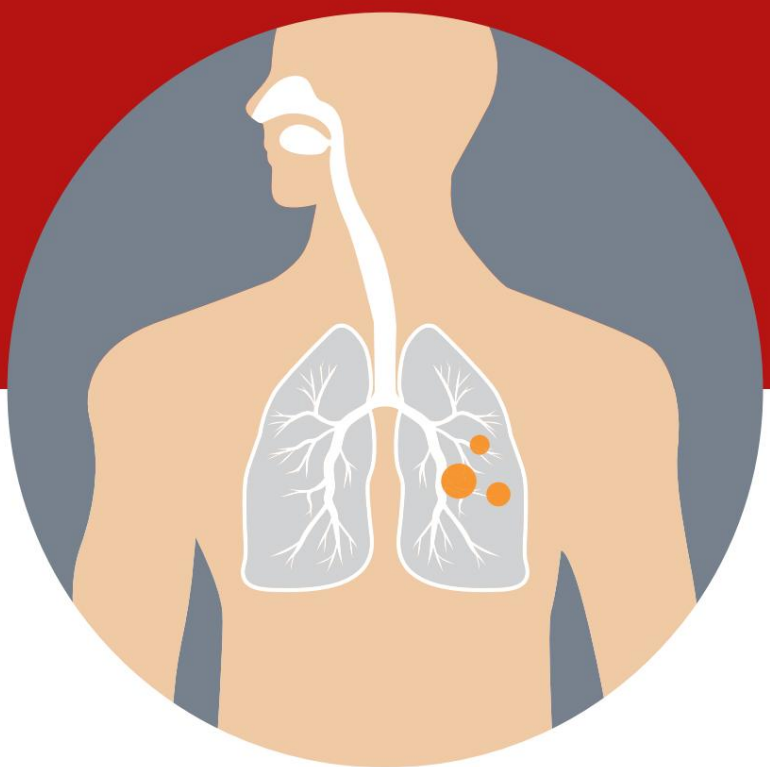
STATENS SERUM INSTITUT

Weekly trends: covid-19 and other respiratory infections

Week 40 | 2022



State Serum Institute | Artillerivej 5 | 2300 Kbh S. | ssi.dk | covid19.ssi.dk

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The epidemiological development of covid-19 and other respiratory infections in Denmark from week 38 to week 39

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Overall assessment

The number of new COVID-19 cases has increased in week 39 to an incidence of 144 cases per 100,000 inhabitants. Likewise there is an increase in positive percentage and test activity compared to week 38.

There has been an increase in the number of new hospital admissions from 457 in week 38 to 573 in week 39 and as previously it is still those between 70 and 89 years old that constitute the biggest share among the new hospital admissions. The number of admissions to intensive care units are still at a very low level. The number of COVID-19 related deaths has risen in the latest week to 47 deaths in week 39. There is still no excess general mortality in the population.

The number of COIVD-19 cases among nursing home residents has increased in week 39 compared to week 38 and there is in week 39 a rise in the number of new hospital admissions among nursing home residents with COVID-19.

So far, BA.5 constitute 93% of the sequenced PCR tests in week 39. There is nothing in the development of current variants and subvariants that give reason to concern at the moment.

Overall, infections with SARS-CoV-2 is rising in week 39. Correspondingly, the number of hospital admissions has increased, while the number of admissions to intensive care are still at a low level. There is no excess mortality in the population in week 39.

Summary

- After a period of decreasing or stable incidence of infection, an increase in the number of people infected with SARS-CoV-2 is seen from week 37 to week 39, where the incidence of infection in week 39 is 144 cases per 100,000 inhabitants. The number of PCR tests is correspondingly increased by 17% from week 38 to week 39, while the positive percentage increased from 16% in week 38 to 17% in week 39

- From week 38 to week 39, the incidence of infection increases in all five regions. As in recent weeks, the incidence of infection is still highest in Region Zealand (172 per 100,000 inhabitants) and lowest in the Capital Region (119 per 100,000 inhabitants). The positive percentage is increasing in Region Hovedstaden, Central Jutland and North Jutland and stable in Region Zealand and Southern Denmark. The highest positive percentage is still seen in Region Central Jutland at 20.9%.

- There is an increase in the incidence of infection in all age groups, except among the 16-19-year-olds, where a stabilization is seen from week 38 to week 39. The incidence of infection is still highest among the 70-79-year-olds (262 cases per 100,000 inhabitants) followed by the 60-69-year-olds (242 cases per 100,000 inhabitants). The test rate is slightly increasing in all age groups, except among the 0-2-year-olds and 20-24-year-olds, where the test rate is stable. The positive percentage is slightly increasing or stable in all age groups except the 16-19 year olds, where the positive percentage is decreasing. The highest positive percentage of 23% is still seen among the 70-79-year-olds, and the second highest positive percentage of 19% is seen among the 60-69-year-olds.

- There is an increase in the number of new hospital admissions from week 38 to week 39 and is in week 39 at 573 admissions compared to 457 in week 38. People aged 70-89 continue to make up the largest group among new admissions, just as it has been the case since the beginning of the year. With 9 cases in week 39, the number of people admitted to intensive care units remains at a low level. From week 40, the calculation method for hospitalizations with and due to covid-19 has changed. Read more about the new calculation method here. The proportion of hospitalizations among people hospitalized due to covid-19 has with the new calculation method fluctuated around 45% (and approx. 60% with the previous calculation method) over the summer and is in week 37 at 47%.

- The number of covid-19-related deaths has, after falling in the past four weeks, now increased for the second week in a row to provisionally 47 deaths in week 39. Mortality at normal level. Denmark is on one

- Among nursing home residents, the number of confirmed cases has increased to 226 cases in week 39 and has overall been increasing since week 35. An increase in the test rate from 6.5% to 8.4% has been seen in week 39. The positive percentage has fallen to 6.6% from 7.0% in week 38. The number of deaths among residents with covid-19 has fallen to 9 in week 39 from 14 in week 38, preceded by an increase from week 35 to 38. In the regions, an increase in the number of cases is seen in Region Central Jutland, Zealand and Southern Denmark, a decrease in the Region

The capital and a stabilization in Region North Jutland compared to last week. The positive percentage has fallen in all regions except the Central Jutland region. The number of newly admitted nursing home residents in hospital has increased to 33 from 24 in week 38 and has been increasing for the last three weeks.

- In week 39, there is a continued increase in confirmed cases among staff in the social sector from week 38 to week 39. The incidence of infection in week 39 is 287 cases per 100,000. At the same time, however, the test rate has increased from 4.1% to 5.3%, and the positive rate has fallen to 5.4% from 5.7%. Among personnel in the health sector, there is also an increase in the number of confirmed cases to an incidence of infection 238 per 100,000 in week 39. Here we also see a small increase in the test rate from 1.3% in week 38 to 1.5% in week 39, but at the same time an increase in the positive percentage from 15.2% in week 38% 39. to 15.6 - week

- BA.5 is still the dominant variant with a share that has stabilized over recent months and amounts to approx. 93% of samples sequenced in week 39. Due to updates to the virus typing system, the internal distribution of subvariants has changed this week and should not be directly compared to previous releases. There has been an increase in the share with the BF.7 subvariant in recent weeks, and it currently amounts to approx. 16% in week 39. In general, reservations must be made that a large number of samples still need to be sequenced for

  week 39.

- Data for concentrations of SARS-CoV-2 in waste water are omitted this week for technical reasons. However, this does not apply to data for variants in waste water, which are based on data from the previous week. In week 38, BA.2.75 is detected in two places in Jutland, partly in South and East Jutland, so that this variant nationally accounts for approx. 0.5% of the varieties examined for in the waste water (see data base). BA.5 is still the dominant SARS-CoV-2 variant (about 99.5%).

  The distribution of the variants in the individual parts of the country can be seen here (https://covid19.ssi.dk/overvagningsdata/overvaagning-af-sarscov2-i-spildevand).

- There is still an increase in the proportion of the COVIDmeter user panel that is presumed to be infected with covid-19 in week 39, corresponding to 1.0% being presumed to be infected with covid-19 in week 39. At regional level, an increase is seen in all regions from week 38 to week 39, the phrase Region North Jutland, where a decrease is seen. The test rate among all the COVIDmeter participants increases for the second week in a row (5.4% in week 39), while the positive rate has increased to 21% in week 39. In week 39, the highest proportion of presumed infected with covid-19 is seen among the 40 -49-year-olds (1.4%).

- Sentinel surveillance shows that the proportion of samples in which respiratory virus has been detected has increased from week 32 to week 36. From week 36 to week 37, a stabilization of 63% is seen in the proportion of samples with detected respiratory virus.
  In week 37, other rhinoviruses, enteroviruses, RS virus and covid-19 made up the four most frequent virus in the samples from the sentinel surveillance. Also note the SSI's

RS virus dashboard, where an increase in the incidence of confirmed RSV cases is seen.

Overall assessment

The number of people infected with SARS-CoV-2 has increased in week 39, and the incidence of infection is 144 cases per 100,000 inhabitants. Likewise, in week 39, an increase in positive percentage and test activity was seen compared to week 38.

Week 39 saw an increase in the number of new admissions from 457 admissions in week 38 to 573 in week 39, and it is still the 70-89-year-olds who make up the largest proportion of new admissions. The number of admissions to intensive care units remains at a very low level. The number of covid-19-related deaths has increased in the past week and is in week 39 at 47 death. There is still no excess mortality in the population.

The incidence of covid-19 among nursing home residents has increased in week 39 compared to week 38, and there is an increase in the number of newly admitted nursing home residents with covid-19 in week 39.

BA.5 in week 39 provisionally constitutes 93% of the sequenced PCR samples. There is nothing in the development of the current variants and sub-variants that is currently cause for concern.

An increasing incidence of infection with SARS-CoV-2 has been seen in week 39. Correspondingly, the number of new admissions has increased, while the number of those admitted to intensive care remains at a low level. There is no excess mortality in the population in week 39.

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
	34	35	36	37	38	39	34-39
Incidence per 100,000 inhabitants* 109		8 4	9 2	8 9	118	144	
Number of tests performed (PCR)	45,411	42,370	42,998	43,028	46,533	54,612	
Confirmed cases (PCR)	6,426	4,948	5,428	5,238	6,961	8,346	
Positive rate (PCR)	15.5	12.7	13.8	13.3	16.2	17.1	

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
	34	35	36	37	38	39	34-39
New hospital admissions	383	295	318	337	457	573	
Number admitted Monday morning	351	292	278	302	376	434	
Number admitted to intensive care on Monday morning	1 9	7	6	1 0	4	9	
Number of dead *	4 5	4 3	2 5	2 5	3 7	4 7	

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

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a delay of one day compared to usual.

The number of deaths for the past week may therefore contain more post-registrations than usual when the report is published.

Other respiratory diseases

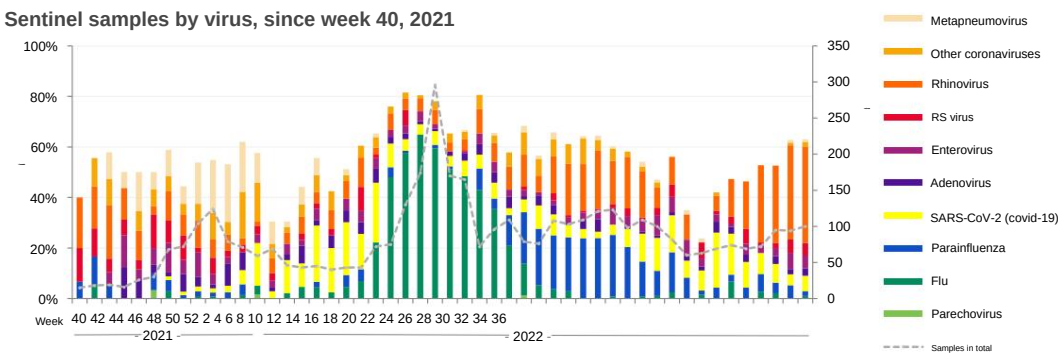
Data is updated backwards.

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

Table 3. 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 32-37, 2022 **Table 3. 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 32-37, 2022**

	2022 week						Trend week
	32	33	34	35	36	37	32-37
Total number of samples	74	69	72	95	94	100	
Detected respiratory viruses (%)	47.3	46.4	52.8	52.6	62.8	63.0	
Detected cases of RS virus (%)	2.7	5.8	1.4	2.1	5.3	5.0	
Detected cases of influenza (%)	6.8	0.0	2.8	2.1	0.0	1.0	
Confirmed cases of covid-19 (%)	16.2	10.1	8.3	7.4	4.3	6.0	
Detected cases of rhinovirus (%)	14.9	18.8	30.6	30.5	37.2	38.0	
Detected cases of enterovirus (%)	1.4	4.3	2.8	3.2	6.4	5.0	
Detected cases of parainfluenza (%)	2.7	4.3	6.9	4.2	5.3	2.0	

Figure 1. Respiratory viruses: Sentinel tests across virus types, week 40-37, 2021-2022
Figure 1. Respiratory viruses: Sentinel samples by virus, week 40-37, 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.

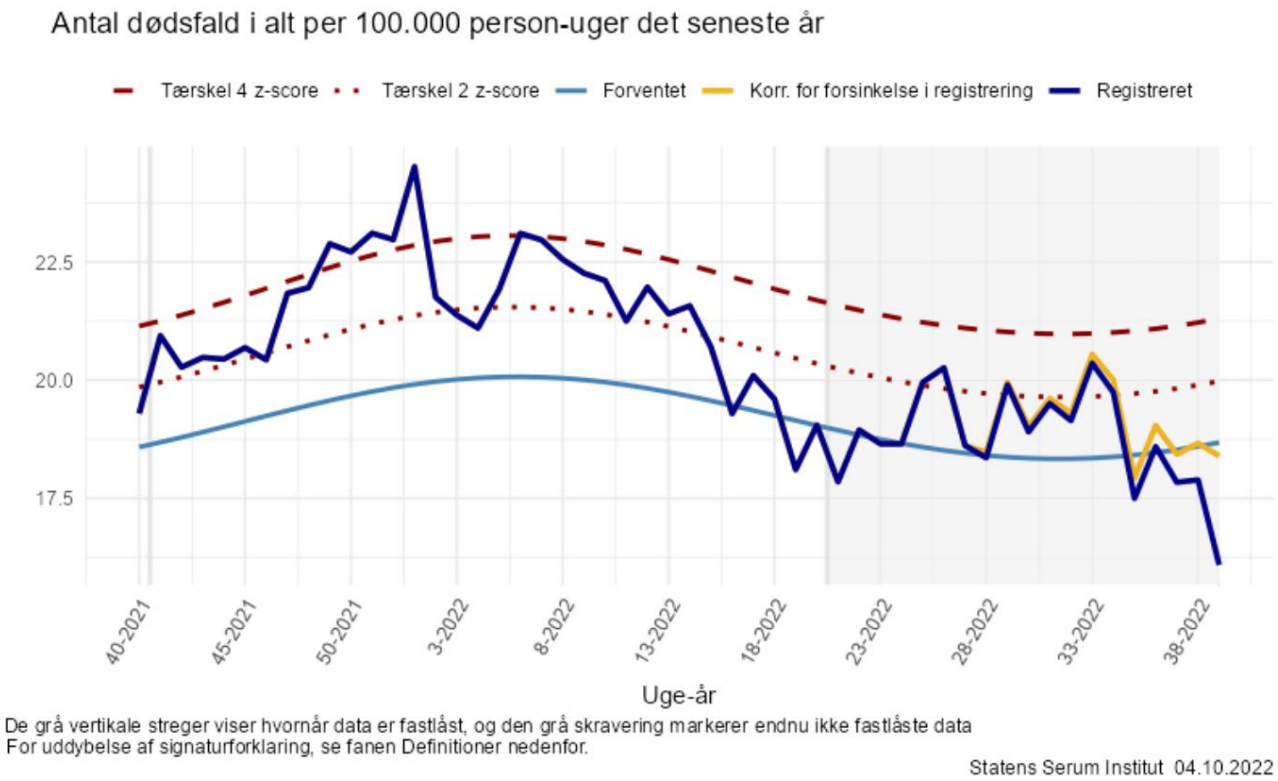
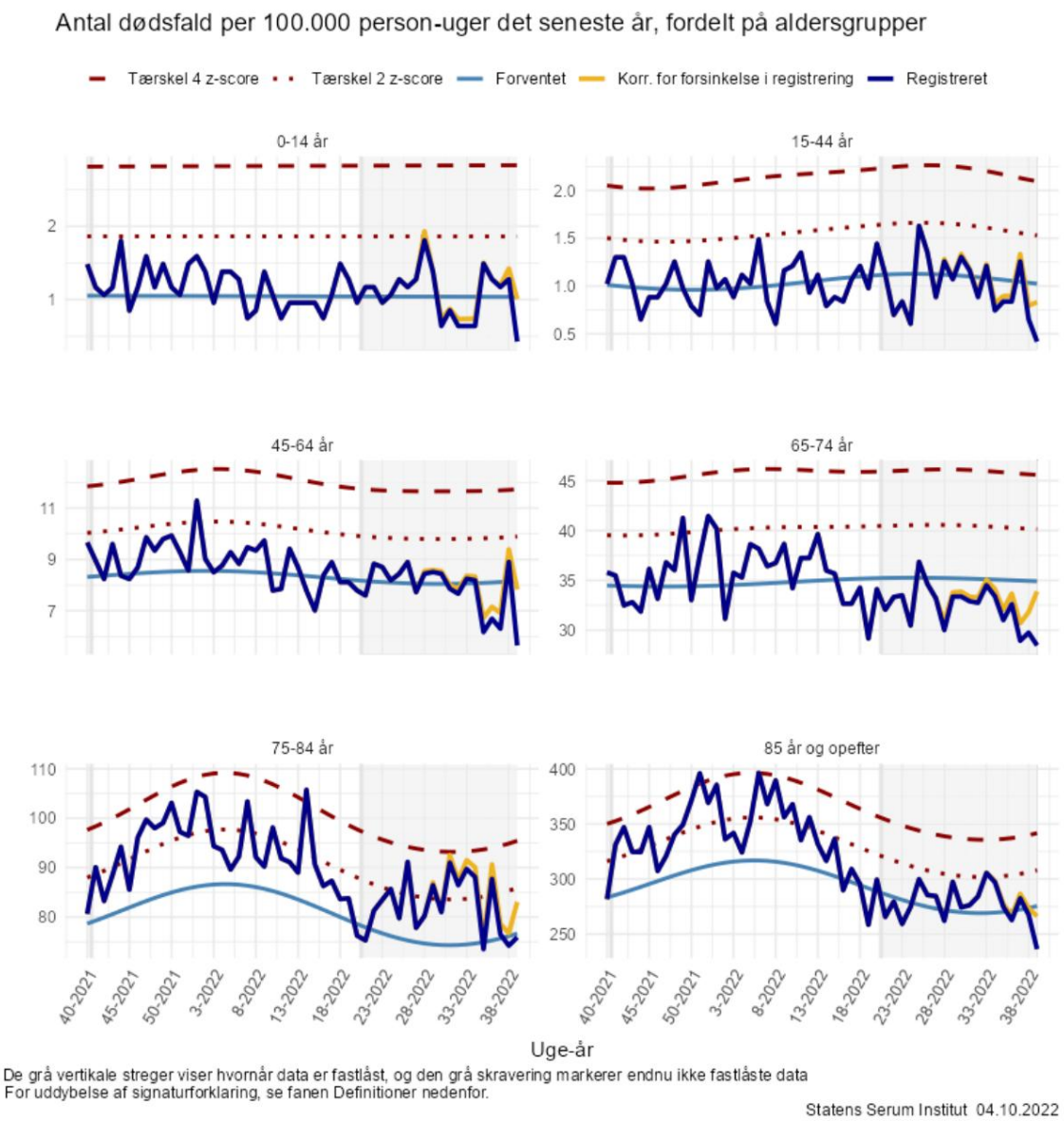


Figure 3. Number of deaths in total per 100,000 person-weeks over the latest year, by age group, 2021-2022.
Figure 3. Total number of deaths per 100,000 person-weeks in the past year, divided by age group, 2021-2022.



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

Table 4. Covid-19: Key figures and trends for regions, broken down by week, 2022

Covid-19	Region	2022 week						Trend week 34-39
		34	35	36	37	38	39	
Incidence per 100,000 inhabitants	The capital	8 3	7 2	8 3	7 9	102	119	
	Central Jutland	132	9 8	9 5	7 9	116	141	
	Northern Jutland	138	8 5	9 4	105	114	132	
	Zealand	111	8 9	103	110	147	172	
	Southern Denmark	102	78	9 1	90	123	169	
Positive percentage	The capital	12.5	11.3	12.4	12.2	14.3	14.8	
	Central Jutland	20.5	17.3	17.3	14.5	19.4	20.9	
	Northern Jutland	17.5	12.7	13.5	14.7	14.8	17.4	
	Zealand	14.4	11.0	13.2	13.0	16.7	16.7	
	Southern Denmark	15.3	12.5	13.8	13.7	17.3	17.6	
New hospital admissions	The capital	124	8 8	130	122	154	180	
	Central Jutland	6 6	6 3	5 5	5 3	8 5	90	
	Northern Jutland	4 1	3 1	4 1	4 4	4 6	60	
	Zealand	70	4 4	4 1	4 9	8 9	117	
	Southern Denmark	7 6	6 1	4 7	6 6	80	123	
	Unknown region	6	8	4	3	3	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

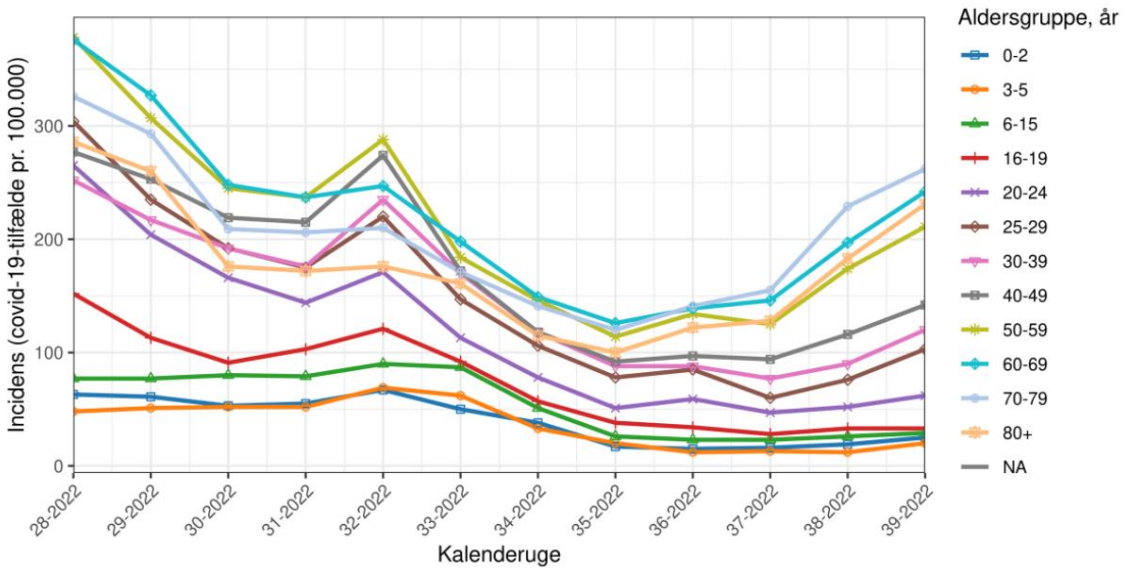


Table 5. Covid-19: Age-specific incidence per 100,000 inhabitants, test rate and positive percentage

Table 5. Covid-19: Age-specific incidence per 100,000 inhabitants, test rate and positive rate

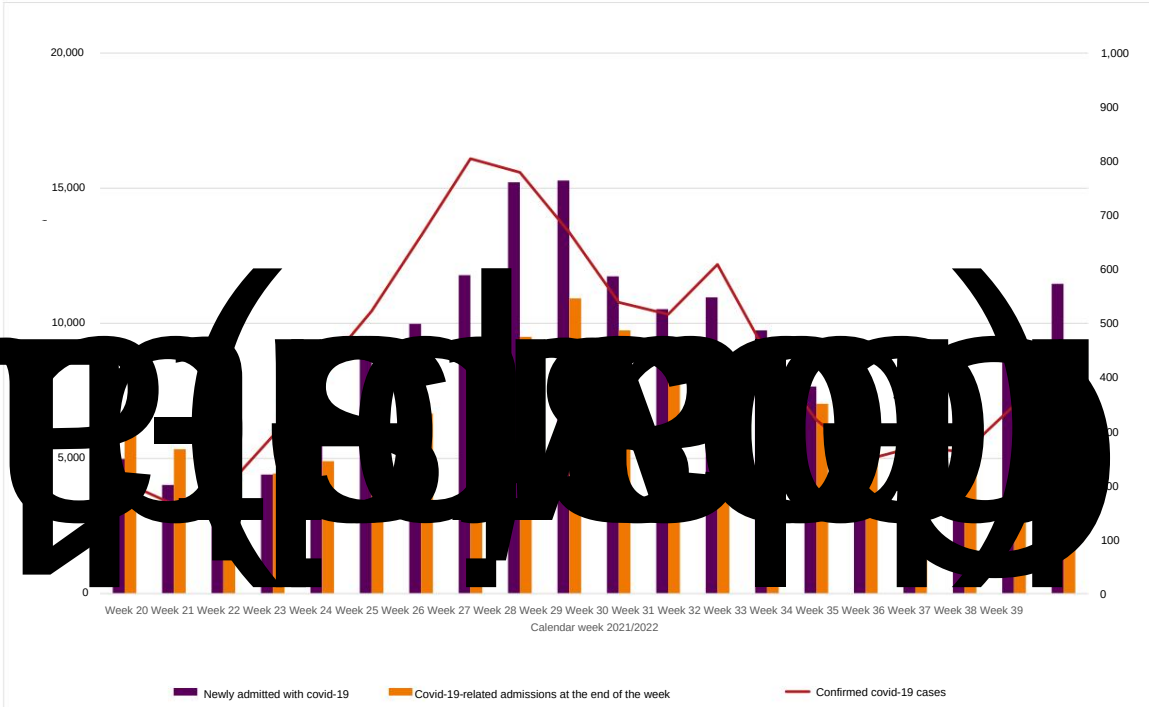
Covid-19, age groups	Incidence, test rate (%), positive rate	2022 week						Trend week
		34	35	36	37	38	39	34-39
0-2 years	Incidence	38	17	15	16	19	25	
	Test rate	0.3	0.2	0.2	0.2	0.3	0.3	
	Positive percentage	14.0	7.0	6.4	6.8	7.0	7.5	
3-5 years	Incidence	33	20	12	13	12	20	
	Test rate	0.3	0.2	0.2	0.2	0.2	0.3	
	Positive percentage	11.0	8.7	6.1	7.0	5.1	6.2	
6-15 years	Incidence	51	26	23	23	26	29	
	Test rate	0.4	0.3	0.3	0.2	0.2	0.3	
	Positive percentage	13.0	9.2	8.9	11.0	11.0	11.0	
16-19 years	Incidence	57	38	34	28	33	33	
	Test rate	0.4	0.4	0.4	0.3	0.3	0.4	
	Positive percentage	14.0	11.0	9.0	9.0	11.0	9.4	
20-24 years	Incidence	78	51	59	47	52	62	
	Test rate	0.6	0.5	0.5	0.5	0.5	0.5	
	Positive percentage	14.0	11.0	12.0	10.0	11.0	12.0	
25-29 years	Incidence	106	78	85	60	76	103	
	Test rate	0.7	0.6	0.6	0.6	0.6	0.7	
	Positive percentage	16.0	12.0	14.0	10.0	12.0	15.0	
30-39 years	Incidence	118	88	88	77	90	120	
	Test rate	0.8	0.7	0.7	0.7	0.7	0.9	
	Positive percentage	15.0	12.0	12.0	11.0	12.0	14.0	
40-49 years	Incidence	118	92	97	94	116	142	
	Test rate	0.8	0.8	0.8	0.8	0.8	1.0	
	Positive percentage	14.0	12.0	12.0	12.0	14.0	14.0	
50-59 years	Incidence	146	114	134	125	174	211	
	Test rate	0.9	0.9	0.9	1.0	1.0	1.2	
	Positive percentage	16.0	13.0	15.0	13.0	17.0	17.0	
60-69 years	Incidence	149	126	139	146	197	242	
	Test rate	0.9	0.9	0.9	1.0	1.1	1.3	
	Positive percentage	18.0	14.0	15.0	15.0	18.0	19.0	
70-79 years	Incidence	141	120	141	155	229	262	
	Test rate	0.9	0.8	0.9	0.9	1.0	1.2	
	Positive percentage	16.0	15.0	17.0	18.0	22.0	23.0	
80+ years	Incidence	115	100	122	128	183	231	
	Test rate	1.7	1.5	1.5	1.6	1.7	2.1	
	Positive percentage	6.7	6.7	7.9	7.9	11.0	11.0	

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

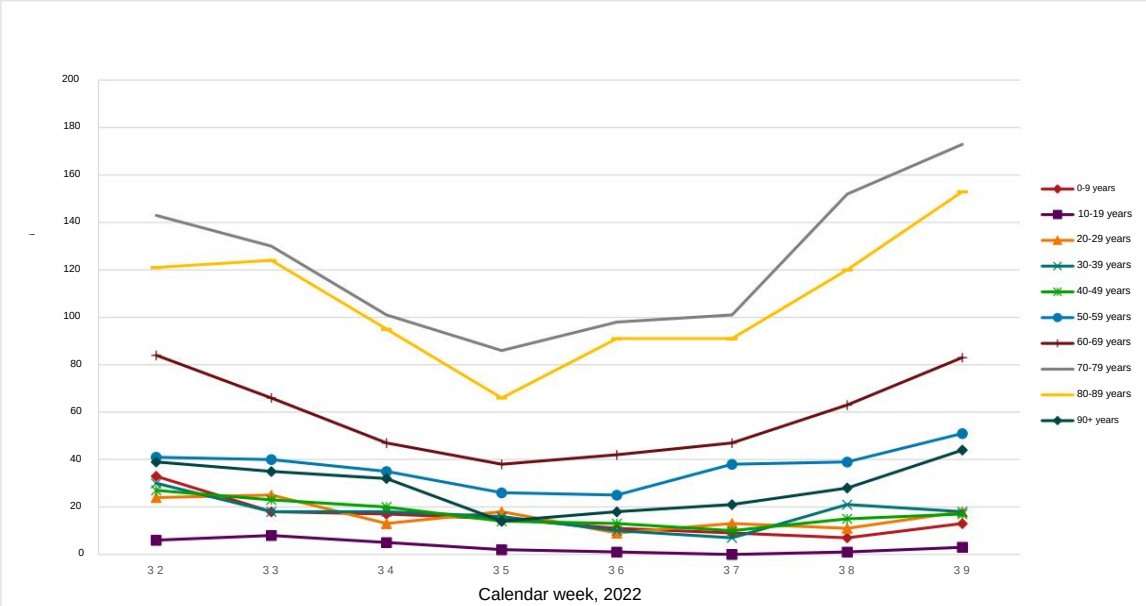


Note to figure: Number of covid-19-related hospitalizations in week 20, the data is retrieved on Tuesday morning and not on Monday morning as in the remaining weeks due to problems with the delivery.

Due to the delay in the data for week 21, there is a risk that the real number of inpatients may be slightly higher or lower.

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 September 18 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 18 September 2022

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Table 6. 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
	32	33	34	35	36	37	32-37
Hospitalization due to covid-19	52	49	44	47	46	48	
Hospitalization where covid-19 may have played a role	20	23	24	28	25	20	
Hospitalization due to conditions other than covid-19	29	28	31	26	29	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 because of other causes than COVID-19 (green). By age group, June 1st 2020 to September 18 th 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 18 September 2022

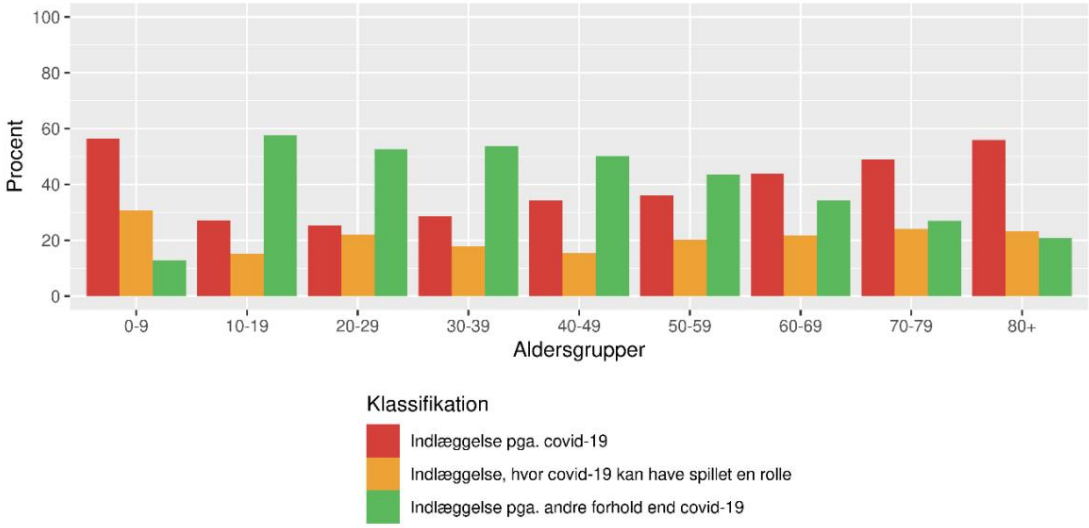


Table 7. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test. Admission because of COVID-19 (red), admission possibly partly because of COVID 19 (orange), or admission because of other causes than COVID-19 (green). By age groups 0-59 and 60+ years old

Table 7. 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
	32	33	34	35	36	37	32-37
0-59 year olds							
Hospitalization due to covid-19	39.8	36.5	32.7	36.4	41.8	33.8	
Hospitalization where covid-19 may have played a role	22.4	22.6	20.9	29.5	22.4	15.5	
Hospitalization due to conditions other than covid-19	37.9	40.9	46.4	34.1	35.8	50.7	
60+ year olds							
Hospitalization due to covid-19	56.5	53.3	49.1	51.0	46.8	52.0	
Hospitalization where covid-19 may have played a role	18.9	23.8	25.8	27.1	25.6	21.5	
Hospitalization due to conditions other than covid-19	24.6	22.9	25.1	21.9	27.6	26.6	

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

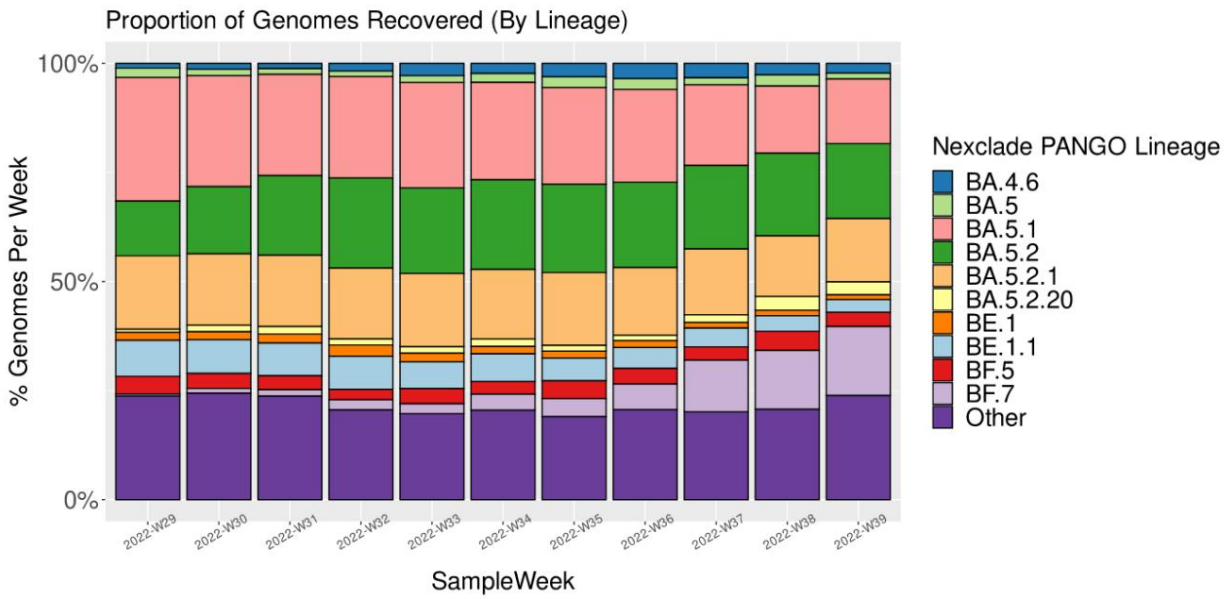


Table 8. COVID-19: The most frequently observed sublineages grouped by overall lineage based on whole-genome sequencing data for the last four weeks, 2022

Table 8. 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					
		36	37	38	39
BA.5	Omicron	3298 (92.56%)	3341 (92.73%)	3573 (93.71%)	1872 (93.46%)
BA.4	Omicron	217 (6.09%)	164 (4.55%)	156 (4.09%)	66 (3.30%)
BA.2.75*	Omicron	31 (0.87%)	67 (1.86%)	64 (1.68%)	46 (2.30%)
BA.2	Omicron	12 (0.34%)	25 (0.69%)	10 (0.26%)	10 (0.50%)
X	Recombinant	5 (0.14%)	6 (0.17%)	10 (0.26%)	9 (0.45%)
Total		3563	3603	3813	2003

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.

Due to system updates in week 40, data is received on Wednesday instead of Tuesday and therefore contains more results than usual.

Table 9. COVID-19: The most frequently observed sub(variants) based on whole-genome sequencing data for the latest four weeks, 2022

Table 9. Covid-19: The most frequently observed (sub)variants based on whole genome sequencing data in the last four weeks, 2022

The most frequently observed (sub)variants based on whole genome sequencing data in the past 4 weeks					
Lineage	WHO	36	37	38	39
BA.5.2	Omicron	698 (19.59%)	689 (19.12%)	721 (18.91%)	345 (17.22%)
BA.5.1	Omicron	757 (21.25%)	667 (18.51%)	587 (15.39%)	296 (14.78%)
BA.5.2.1	Omicron	553 (15.52%)	544 (15.10%)	530 (13.90%)	290 (14.48%)
BF.7	Omicron	208 (5.84%)	429 (11.91%)	515 (13.51%)	317 (15.83%)
BF.5	Omicron	128 (3.59%)	109 (3.03%)	168 (4.41%)	65 (3.25%)
BE.1.1	Omicron	170 (4.77%)	155 (4.30%)	135 (3.54%)	58 (2.90%)
BA.5.2.20	Omicron	42 (1.18%)	63 (1.75%)	121 (3.17%)	59 (2.95%)
BA.4.6	Omicron	125 (3.51%)	120 (3.33%)	100 (2.62%)	45 (2.25%)
BA.5	Omicron	88 (2.47%)	57 (1.58%)	99 (2.60%)	27 (1.35%)
BE.1	Omicron	58 (1.63%)	46 (1.28%)	48 (1.26%)	23 (1.15%)
BA.5.2.3	Omicron	36 (1.01%)	38 (1.05%)	47 (1.23%)	26 (1.30%)
BA.4.1	Omicron	51 (1.43%)	21 (0.58%)	38 (1.00%)	8 (0.40%)
BA.5.2.6	Omicron	26 (0.73%)	31 (0.86%)	38 (1.00%)	35 (1.75%)
BA.5.1.10	Omicron	27 (0.76%)	24 (0.67%)	36 (0.94%)	20 (1.00%)
BA.5.2.9	Omicron	29 (0.81%)	16 (0.44%)	33 (0.87%)	9 (0.45%)
BA.5.1.2	Omicron	24 (0.67%)	30 (0.83%)	30 (0.79%)	12 (0.60%)
BQ.1.1	Omicron	3 (0.08%)	13 (0.36%)	28 (0.73%)	38 (1.90%)
BA.5.1.5	Omicron	30 (0.84%)	27 (0.75%)	24 (0.63%)	14 (0.70%)
BA.2.75.2	Omicron	4 (0.11%)	12 (0.33%)	22 (0.58%)	15 (0.75%)
BA.5.6	Omicron	43 (1.21%)	43 (1.19%)	21 (0.55%)	14 (0.70%)
BF.10	Omicron	13 (0.36%)	14 (0.39%)	21 (0.55%)	12 (0.60%)
BF.4	Omicron	8 (0.22%)	8 (0.22%)	21 (0.55%)	3 (0.15%)
BQ.1	Omicron	15 (0.42%)	18 (0.50%)	21 (0.55%)	22 (1.10%)
BA.5.1.21	Omicron	20 (0.56%)	30 (0.83%)	20 (0.52%)	11 (0.55%)
BA.5.9	Omicron	28 (0.79%)	22 (0.61%)	20 (0.52%)	11 (0.55%)
BF.11	Omicron	8 (0.22%)	7 (0.19%)	20 (0.52%)	15 (0.75%)
BA.5.3.1	Omicron	16 (0.45%)	11 (0.31%)	19 (0.50%)	11 (0.55%)
BA.5.1.3	Omicron	43 (1.21%)	28 (0.78%)	18 (0.47%)	3 (0.15%)
BA.5.2.21	Omicron	13 (0.36%)	16 (0.44%)	17 (0.45%)	17 (0.85%)
BA.5.5	Omicron	16 (0.45%)	11 (0.31%)	16 (0.42%)	9 (0.45%)
BE.1.1.1	Omicron	20 (0.56%)	14 (0.39%)	16 (0.42%)	2 (0.10%)
BF.15	Omicron	4 (0.11%)	12 (0.33%)	15 (0.39%)	5 (0.25%)
BA.5.1.4	Omicron	8 (0.22%)	5 (0.14%)	14 (0.37%)	14 (0.70%)
BM.1.1	Omicron	0 (0.00%)	3 (0.08%)	14 (0.37%)	6 (0.30%)
BV.1	Omicron	6 (0.17%)	2 (0.06%)	14 (0.37%)	2 (0.10%)
BA.5.2.13	Omicron	6 (0.17%)	2 (0.06%)	13 (0.34%)	6 (0.30%)
BA.5.2.7	Omicron	10 (0.28%)	18 (0.50%)	12 (0.31%)	6 (0.30%)

BF.14	Omicron	5 (0.14%)	9 (0.25%)	12 (0.31%)	17 (0.85%)
BA.4	Omicron	9 (0.25%)	10 (0.28%)	10 (0.26%)	3 (0.15%)
BA.5.2.24	Omicron	10 (0.28%)	20 (0.56%)	10 (0.26%)	4 (0.20%)
BA.5.3.3	Omicron	9 (0.25%)	4 (0.11%)	10 (0.26%)	5 (0.25%)
BN.1	Omicron	9 (0.25%)	21 (0.58%)	10 (0.26%)	11 (0.55%)
BA.5.1.12	Omicron	12 (0.34%)	6 (0.17%)	8 (0.21%)	5 (0.25%)
BA.2.3.20	Omicron	6 (0.17%)	15 (0.42%)	7 (0.18%)	10 (0.50%)
BA.5.1.19	Omicron	0 (0.00%)	1 (0.03%)	7 (0.18%)	1 (0.05%)
BA.5.2.2	Omicron	0 (0.00%)	1 (0.03%)	7 (0.18%)	0 (0.00%)
BA.5.2.18	Omicron	10 (0.28%)	2 (0.06%)	6 (0.16%)	8 (0.40%)
BE.3	Omicron	7 (0.20%)	9 (0.25%)	6 (0.16%)	2 (0.10%)
BF.18	Omicron	4 (0.11%)	5 (0.14%)	6 (0.16%)	0 (0.00%)
BA.2.75.1	Omicron	3 (0.08%)	5 (0.14%)	5 (0.13%)	1 (0.05%)
BA.4.7	Omicron	21 (0.59%)	6 (0.17%)	5 (0.13%)	4 (0.20%)
BA.5.1.1	Omicron	5 (0.14%)	9 (0.25%)	5 (0.13%)	3 (0.15%)
BF.21	Omicron	8 (0.22%)	3 (0.08%)	5 (0.13%)	2 (0.10%)
BA.5.2.22	Omicron	7 (0.20%)	13 (0.36%)	4 (0.10%)	6 (0.30%)
BA.5.5.1	Omicron	1 (0.03%)	6 (0.17%)	4 (0.10%)	2 (0.10%)
BL.1	Omicron	1 (0.03%)	4 (0.11%)	4 (0.10%)	3 (0.15%)
XAZ	Recombinant	2 (0.06%)	5 (0.14%)	4 (0.10%)	5 (0.25%)
XBB	Omicron	0 (0.00%)	0 (0.00%)	4 (0.10%)	4 (0.20%)
BA.5.2.25	Omicron	2 (0.06%)	2 (0.06%)	3 (0.08%)	0 (0.00%)
BA.5.2.4	Omicron	2 (0.06%)	4 (0.11%)	3 (0.08%)	0 (0.00%)
BF.16	Omicron	1 (0.03%)	2 (0.06%)	3 (0.08%)	0 (0.00%)
CITY.1	Omicron	0 (0.00%)	0 (0.00%)	3 (0.08%)	0 (0.00%)
BZ.1	Omicron	13 (0.36%)	4 (0.11%)	3 (0.08%)	0 (0.00%)
BA.5.1.7	Omicron	1 (0.03%)	2 (0.06%)	2 (0.05%)	0 (0.00%)
BF.2	Omicron	2 (0.06%)	3 (0.08%)	2 (0.05%)	0 (0.00%)
BL.2	Omicron	2 (0.06%)	3 (0.08%)	2 (0.05%)	3 (0.15%)
BM.5	Omicron	2 (0.06%)	0 (0.00%)	2 (0.05%)	0 (0.00%)
BA.2.75	Omicron	1 (0.03%)	2 (0.06%)	1 (0.03%)	0 (0.00%)
BA.2.75.5	Omicron	3 (0.08%)	6 (0.17%)	1 (0.03%)	2 (0.10%)
BA.2.75.6	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	3 (0.15%)
BA.4.1.8	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	2 (0.10%)
BA.4.2	Omicron	3 (0.08%)	4 (0.11%)	1 (0.03%)	0 (0.00%)
BA.4.4	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	2 (0.10%)
BA.5.10.1	Omicron	2 (0.06%)	0 (0.00%)	1 (0.03%)	1 (0.05%)
BA.5.2.12	Omicron	1 (0.03%)	1 (0.03%)	1 (0.03%)	0 (0.00%)
BA.5.2.14	Omicron	3 (0.08%)	6 (0.17%)	1 (0.03%)	0 (0.00%)
BA.5.2.16	Omicron	1 (0.03%)	0 (0.00%)	1 (0.03%)	2 (0.10%)
BF.1	Omicron	5 (0.14%)	4 (0.11%)	1 (0.03%)	4 (0.20%)
BF.13	Omicron	0 (0.00%)	0 (0.00%)	1 (0.03%)	1 (0.05%)
BF.3.1	Omicron	1 (0.03%)	0 (0.00%)	1 (0.03%)	0 (0.00%)

BF.6	Omicron	2 (0.06%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BF.8	Omicron	2 (0.06%)	2 (0.06%)	1 (0.03%)	1 (0.05%)
BL.3	Omicron	4 (0.11%)	5 (0.14%)	1 (0.03%)	1 (0.05%)
BR.1	Omicron	0 (0.00%)	3 (0.08%)	1 (0.03%)	0 (0.00%)
XAN	Recombinant	3 (0.08%)	1 (0.03%)	1 (0.03%)	0 (0.00%)
XAY	Participate	0 (0.00%)	0 (0.00%)	1 (0.03%)	0 (0.00%)
BA.2	Omicron	3 (0.08%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.2.12.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.2.56	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.2.75.4	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BA.2.83	Omicron	0 (0.00%)	8 (0.22%)	0 (0.00%)	0 (0.00%)
BA.4.1.10	Omicron	1 (0.03%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.4.1.6	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.4.1.9	Omicron	3 (0.08%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.4.3	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.4.6.1	Omicron	2 (0.06%)	2 (0.06%)	0 (0.00%)	2 (0.10%)
BA.5.1.11	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.1.17	Omicron	2 (0.06%)	6 (0.17%)	0 (0.00%)	3 (0.15%)
BA.5.1.6	Omicron	3 (0.08%)	3 (0.08%)	0 (0.00%)	0 (0.00%)
BA.5.1.8	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.1.9	Omicron	1 (0.03%)	2 (0.06%)	0 (0.00%)	0 (0.00%)
BA.5.10	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.2.19	Omicron	2 (0.06%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.2.23	Omicron	0 (0.00%)	2 (0.06%)	0 (0.00%)	0 (0.00%)
BA.5.3	Omicron	3 (0.08%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.5.2	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.5.3	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BA.5.6.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BA.5.8	Omicron	4 (0.11%)	3 (0.08%)	0 (0.00%)	0 (0.00%)
BE.1.2	Omicron	3 (0.08%)	0 (0.00%)	0 (0.00%)	2 (0.10%)
BE.1.2.1	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BE.1.3	Omicron	3 (0.08%)	3 (0.08%)	0 (0.00%)	1 (0.05%)
BE.2	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	2 (0.10%)
BF.19	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BF.9	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BJ.1	Omicron	0 (0.00%)	1 (0.03%)	0 (0.00%)	0 (0.00%)
BK.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BM.4.1.1	Omicron	2 (0.06%)	3 (0.08%)	0 (0.00%)	0 (0.00%)
BQ.1.2	Omicron	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (0.05%)
BS.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
BT.1	Omicron	1 (0.03%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Total		3563	3603	3813	2003

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 needs to be interpreted with precaution.

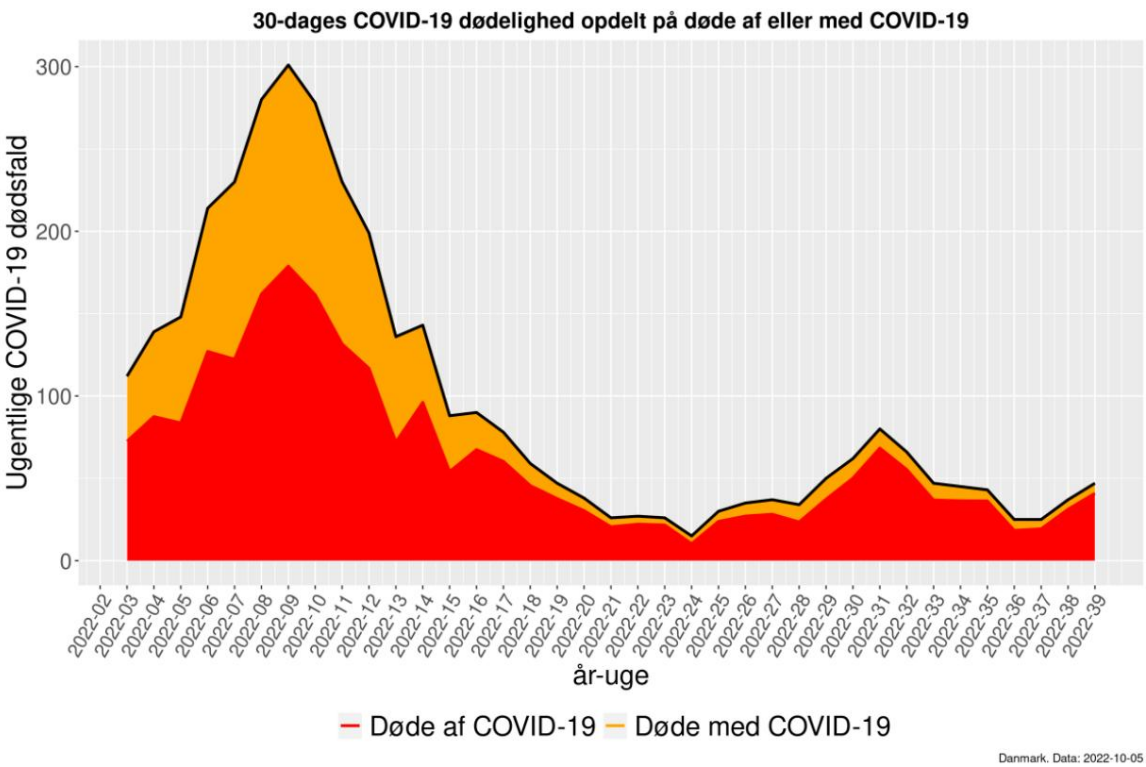
Due to system updates in week 40, data is received on Wednesday instead of Tuesday and therefore contains more results than usual.

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

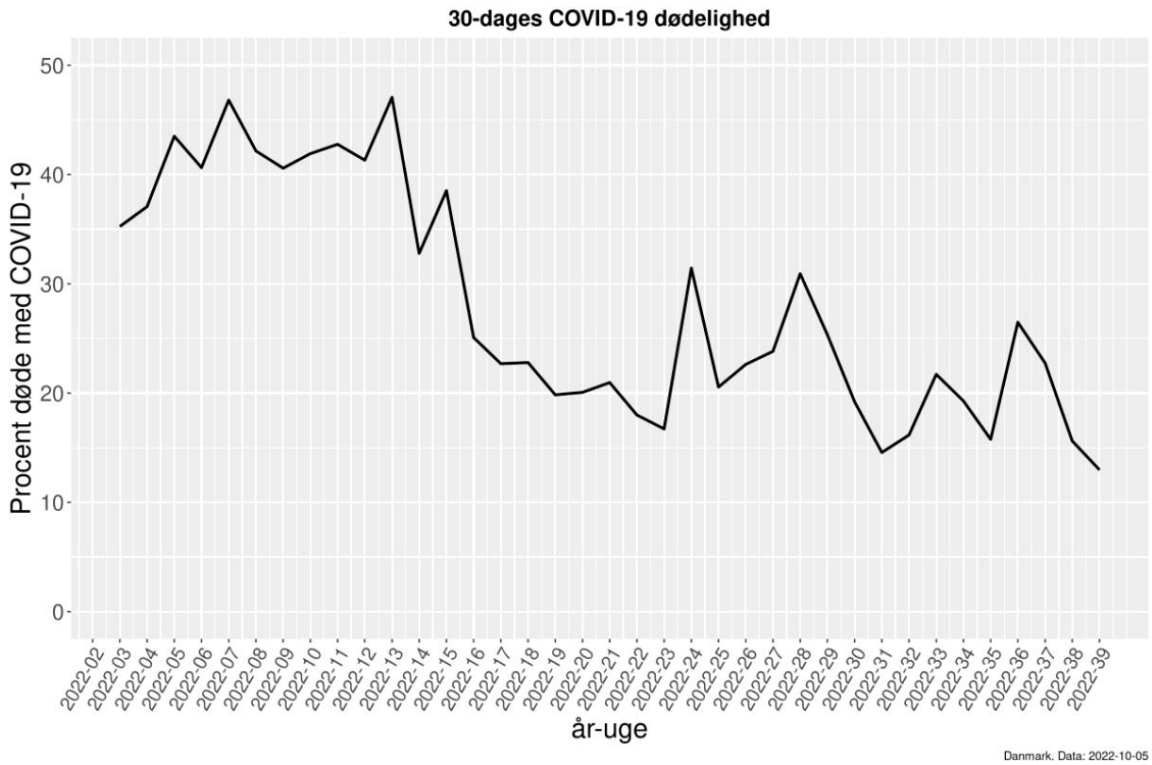


Note: Calculation performed on the basis of a model from the PandemiX Research Center, RUC in collaboration with EuroMOMO, SSI.

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a one-day delay compared to usual.

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.

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a one-day delay compared to usual.

Table 10. 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 10. 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	Deaths with a positive covid-19 PCR test within 30 days, total	Death "of" covid-19	Death "with" covid-19	Proportion (%) of deaths "with" covid-19
27	37	28	9	23.8
28	34	23	11	30.9
29	50	37	13	25.3
30	62	50	12	19.2
31	80	68	12	14.6
32	66	55	11	16.2
33	47	37	10	21.7
34	45	36	9	19.3
35	43	36	7	15.8
36	25	18	7	26.5
37	25	19	6	22.8
38	37	31	6	15.6
39	47	41	6	13.0

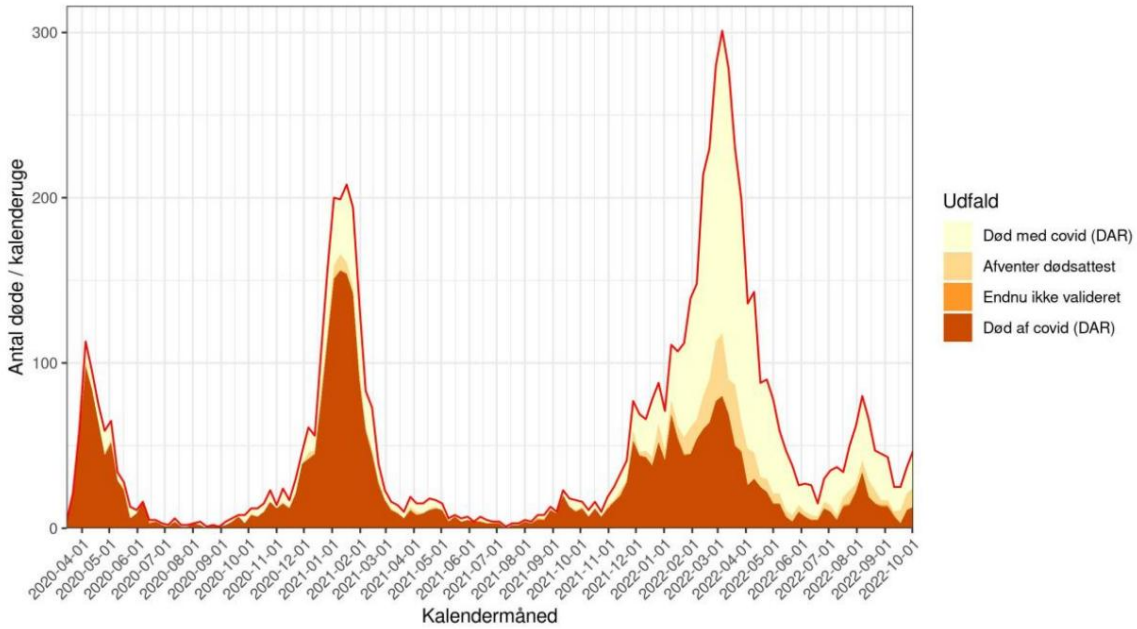
Note: Calculation performed on the basis of a model from the PandemiX Research Center, RUC in collaboration with EuroMOMO, SSI.

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a delay of one day compared to usual.

The number of deaths for the past week may therefore contain more post-registrations than usual when the report is published.

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

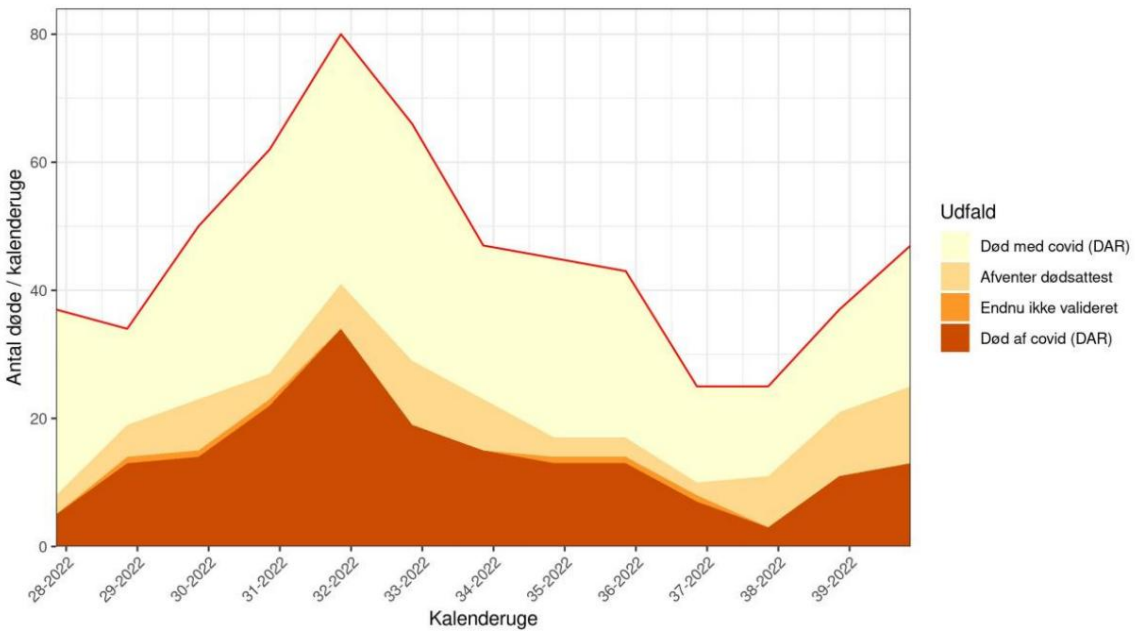


Note: Developed on background of data from The cause of death register (DAR) via The Danish Health Data Agency.

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a one-day delay compared to usual.

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.

NOTE: Due to missing data from the cause of death register on Tuesday in week 40, data for week 39 has been generated with a one-day delay compared to usual.

Hospital outbreak

Table 11. COVID-19: Outbreaks at hospitals

Table 11. Covid-19: hospital outbreaks

Hospitalsudbrud	2022 uge					
	34	35	36	37	38	39
Antal indberetninger om udbrud (ud af 12 infektionshygiejniske enheder)	4	3	5	3	4	4
Heraf ingen udbrud	4	3	5	3	1	2
Heraf enheder med udbrud	0	0	0	0	3	2
Antal udbrud i alt	0	0	0	0	4	3
Antal større udbrud (>20 smittede, patienter og/eller personale)	0	0	0	0	0	0
Antal mellemstore udbrud (11 til 20 smittede, patienter og/eller personale)	0	0	0	0	1	1
Antal mindre udbrud (≤10 smittede, patienter og/eller personale)	0	0	0	0	3	2

Nursing home

Data is updated backwards.

Table 12. COVID-19 at nursing homes

Table 12. Covid-19 in nursing homes

Covid-19, nursing home	2022 week						Trend week
	34	35	36 37		38	39	34-39
Confirmed cases among residents	83	53	102	117	185	226	
Test rate among residents (%)	7.5	6.0	6.3	7.2	6.5	8.4	
Positive percentage among residents	2.7	2.2	4.0	4.0	7.0	6.6	
Deaths among confirmed cases	18	11	8	11	14	9	
Nursing homes with confirmed cases	45	34	50	51	63	83	

Table 13. COVID-19 at nursing homes by region

Table 13. Covid-19 in care homes divided by region

Covid-19, nursing home	Region	2022 week						Trend week
		34	35	36	37	38	39	34-39
Confirmed cases among residents	The capital	2 6	2 3	4 9	3 3	8 2	7 3	
	Central Jutland	20	4	1 4	3 7	1 1	4 1	
	Northern Jutland	1 4	9	1 4	1 0	1 9	1 8	
	Zealand	1 4	3	3	2 6	1 9	2 4	
	Southern Denmark	9	1 4	2 2	1 1	5 4	70	
Test rate among residents (%)	The capital	8.3	7.6	8.5	8.7	9.4	9.4	
	Central Jutland	5.4	3.4	3.0	4.4	2.2	4.1	
	Northern Jutland	10.6	8.3	8.0	8.2	7.2	7.5	
	Zealand	6.7	5.6	5.2	7.4	5.0	6.6	
	Southern Denmark	7.6	5.3	6.4	7.6	7.6	13.0	
Positive percentage among residents	The capital	2.6	2.5	4.7	3.1	7.0	6.3	
	Central Jutland	4.0	1.3	5.2	9.2	5.3	10.8	
	Northern Jutland	2.7	2.2	3.6	2.5	5.5	4.9	
	Zealand	3.8	1.0	1.0	6.3	6.8	6.5	
	Southern Denmark	1.4	3.1	4.0	1.7	8.2	6.2	

Table 14. COVID-19: Number of residents at nursing homes admitted to hospitals

Table 14. Covid-19: number of newly admitted nursing home residents in hospital

Covid-19	Region	2022 week						Trend week
		34	35	36 37		38	39	34-39
Newly admitted nursing home residents in hospital	The capital	1 1	5	1 1	4	9	1 1	
	Central Jutland	2	1	4	3	4	3	
	Northern Jutland	1	0	2	1	4	2	
	Zealand	5	0	0	3	2	8	
	Southern Denmark	2	3	2	4	5	9	
	Denmark	2 1	9	1 9	1 5	2 4	3 3	

Special personnel groups

Data is updated backwards.

Table 15. COVID-19: Confirmed cases, incidence per 100,000 inhabitants, test rate and positive percentage among specific employees **Table 15. 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
		34	35	36	37	38	39	34-39
Social sector	Confirmed cases	357	321	302	329	419	511	
	Incidence	201	181	170	185	236	287	
	Test rate	3.3	4.0	3.6	4.4	4.1	5.3	
	Positive percentage	6.2	4.5	4.7	4.2	5.7	5.4	
Health sector	Confirmed cases	323	218	265	264	342	425	
	Incidence	181	122	149	149	193	238	
	Test rate	1.2	1.1	1.1	1.1	1.3	1.5	
	Positive percentage	15.5	11.4	13.1	13.4	15.2	15.6	

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

PGA. TECHNICAL PROBLEMS OUTPUT DATA THIS WEEK

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

PGA. TECHNICAL PROBLEMS OUTPUT DATA THIS WEEK

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 33-39
Figure 16. Covid-19: national trend in waste-water surveillance, week 33-39

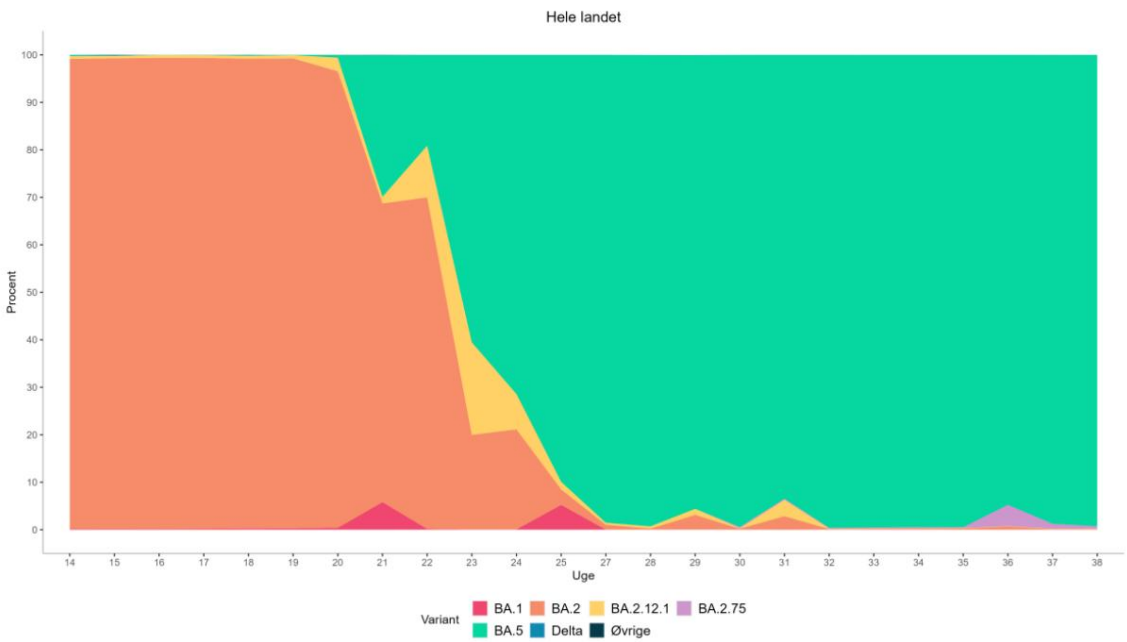
PGA. TECHNICAL PROBLEMS OUTPUT DATA THIS WEEK

Figure 17. COVID-19. Trends from waste-water surveillance by region, week 33-39
Figure 17. Covid-19: regional trends in waste-water surveillance, week 33-39

PGA. TECHNICAL PROBLEMS OUTPUT DATA THIS WEEK

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%).

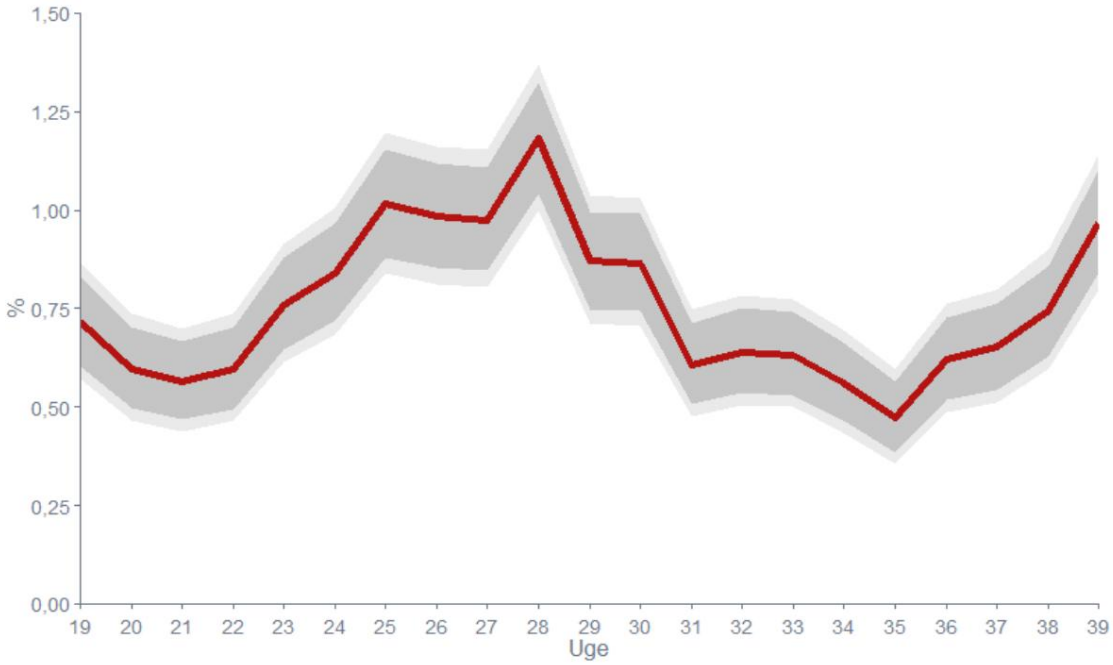


Table 16. COVIDmeter: Number of participants, proportion of presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants and self-reported test rate and positive percentage among presumably infected with COVID-19

Table 16. 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 34	35	36	37	38	39	Trend week 34-39
All participants in COVIDmeter	Number of participants	21,867	21,617	21,762	21,657	21,938	21,930	
	Presumed infected with covid-19 (%)	0.6	0.5	0.6	0.7	0.7	1.0	
	Test rate (%)*	3.8	3.9	4.2	4.1	4.6	5.4	
	Positive rate*	2 2	1 6	1 6	1 8	1 7	2 1	
Presumably infected with covid-19	Test rate (%)*	6 2	6 2	5 3	5 1	4 9	6 5	
	Positive rate*	6 3	5 4	5 2	5 8	5 1	5 9	

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

Table 17. COVIDmeter: Proportion presumably infected with COVID-19, self-reported test rate and positive percentage among all COVIDmeter participants by region

Table 17. 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 34	35	36	37	38	39	Trend week 34-39
Number of participants	The capital	7,999	7,905	8,050	7,948	8,016	8,100	
	Central Jutland	4,946	4,894	4,910	4,858	4,974	4,925	
	Northern Jutland	2,048	2008	2,037	1,984	2,042	2013	
	Zealand	3.105	3,047	3,033	3,079	3,093	3.106	
	Southern Denmark	3,769	3,763	3,732	3,788	3,813	3,786	
Presumed infected with covid-19 (%)	The capital	0.6	0.5	0.8	0.6	0.9	1.0	
	Central Jutland	0.6	0.4	0.5	0.6	0.6	0.9	
	Northern Jutland	0.4	0.3	0.5	0.6	1.1	0.8	
	Zealand	0.6	0.4	0.5	0.6	0.8	0.9	
	Southern Denmark	0.5	0.6	0.5	0.8	0.4	1.2	
Test rate (%)*	The capital	3.6	3.6	4.5	4.0	4.5	5.4	
	Central Jutland	4.0	3.8	4.0	3.7	5.0	5.3	
	Northern Jutland	4.8	4.4	4.0	4.5	4.8	5.4	
	Zealand	3.8	3.6	3.9	4.5	4.3	5.5	
	Southern Denmark	3.6	4.3	4.4	4.0	4.7	5.8	
Positive rate*	The capital	19.3	12.2	15.3	19.6	17.9	18.4	
	Central Jutland	22.0	21.3	19.3	18.3	17.2	23.6	
	Northern Jutland	18.4	21.6	18.5	18.0	19.6	21.3	
	Zealand	25.4	11.8	18.6	13.0	13.6	22.2	
	Southern Denmark	26.9	18.8	9.2	19.1	16.9	19.5	

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

Table 18. COVIDmeter: Age specific proportion presumably infected with COVID-19, self reported test rate and positive percentage among COVIDmeter participants by week, 2022.

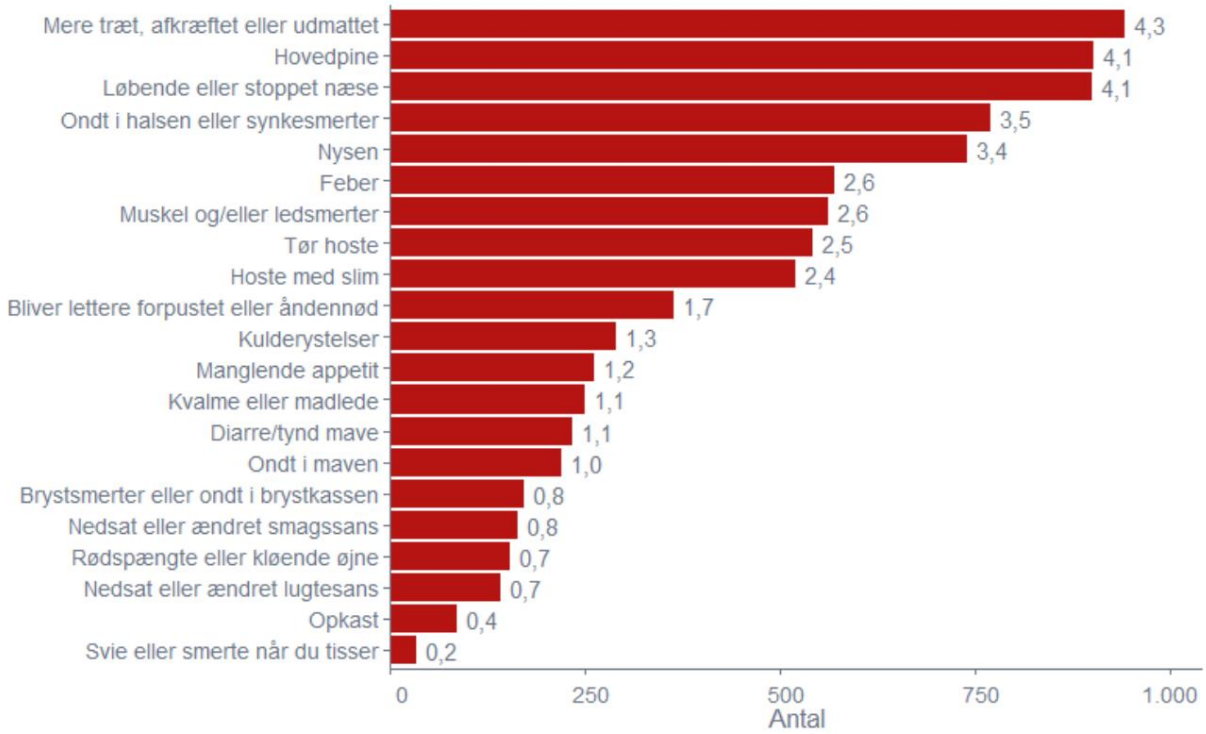
Table 18. COVIDmeter: age-specific proportion presumed to be infected with covid-19, self-reported test rate and positive percentage among the COVIDmeter participants by week, 2022

COVIDmeter, age groups	Number of participants, proportion suspected of being infected with covid-19 (%), test rate (%) and positive percentage	2022 week						Trend week 34-39
		34	35	36	37	38	39	
40-49 years	Number of participants	1,931	1,925	1,925	1,875	1,896	1,899	
	Presumed infected with covid-19 (%)	0.7	1.0	1.3	0.9	0.6	1.4	
	Test rate (%)*	6.4	6.9	6.3	6.9	6.7	8.6	
	Positive rate*	20.3	10.6	17.4	12.3	12.6	8.0	
50-59 years	Number of participants	5,002	4,964	4,997	4,930	5,020	5,012	
	Presumed infected with covid-19 (%)	0.7	0.5	0.6	1.0	1.0	1.2	
	Test rate (%)*	5.2	5.3	5.8	5.7	6.8	7.3	
	Positive rate*	19.7	12.2	13.9	16.8	13.2	20.0	
60-69 years	Number of participants	7,692	7,548	7,636	7,677	7,761	7,755	
	Presumed infected with covid-19 (%)	0.5	0.4	0.6	0.7	0.6	0.8	
	Test rate (%)*	3.4	3.6	4.2	3.8	4.2	5.3	
	Positive rate*	18.9	20.2	16.7	16.7	15.2	22.8	
70+ years	Number of participants	6,639	6,589	6,607	6,595	6,689	6,685	
	Presumed infected with covid-19 (%)	0.4	0.4	0.4	0.3	0.7	0.8	
	Test rate (%)*	2.3	1.9	2.2	2.3	2.5	3.1	
	Positive rate*	32.7	21.9	16.2	26.5	30.6	25.2	

*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 39, 2022.

Figure 20. Covid-19: symptoms reported to COVIDmeter divided by number in week 39, 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.

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

Re-infections were included from week 18, 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. If the test is taken 48 hours after the time of admission, it is 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

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 beginning 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 very small probability of death, while elderly (65+-year olds) 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

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 occurrence of the variants which

ECDC (The European Center for Disease Prevention and Control) at all times assesses VOC (variants of concern) and VOI (variants of interest) are current.
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 present

is the reason for this.

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