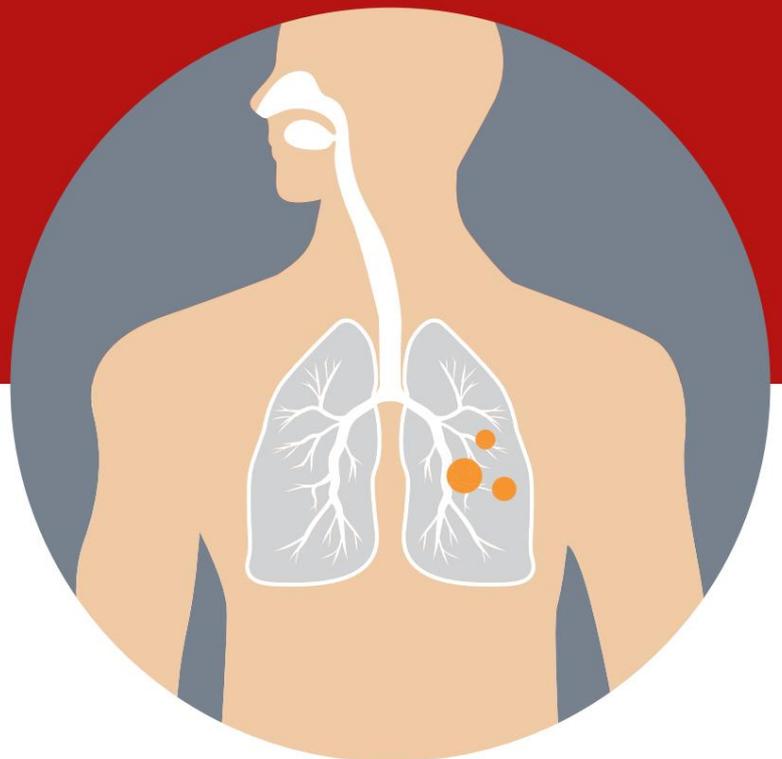


Weekly trends: covid-19 and other respiratory infections

Week 7 | 2022





The epidemiological development of covid-19 and other respiratory infections in Denmark from week 5 to week 6

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Table of Contents

Overall assessment	3
Summary	4
Overall assessment	6
Key figures	7
Covid-19	7
Trends - covid-19	9
Regional differences	9
Growth rates in the municipalities	10
Age incidence	12
Newly admitted	13
SARS-CoV-2 variants	19
Mortality	23
Breakthrough infections	27
Hospital outbreak	29
Nursing homes	29
Special staff groups	30
Confirmed cases among travelers	31
Wastewater	32
Data basis	34
Covid-19	34
Links	40



Overall assessment

The case numbers have increased by 6.6% on a national level between week 5 and 6. However, there is a 6.7% decrease in case numbers in the Capital Region, while an increase of 27.5% is seen in the Region of North Denmark followed by an 11.7% increase in the Region of South Denmark and an 8.5% decrease in the Central Region. The rate of test positive continues to increase nationwide with the highest rate registered in the Region of North Denmark of 44% in week 6. While there was detected a decrease in the concentration of SARS-CoV-2 in the wastewater samples in the Capital Region and Region Zealand in week 5, an increase in concentration of SARS-CoV-2 was detected in the wastewater samplings nationwide.

The case numbers continue to decrease among children, but case numbers increase among younger adults in age groups of 16-39 years as well as for the older age groups above 50 years. Case numbers still seems to be stable among the 30-49 year olds. The number of new hospital admissions increased by 16% from week 5 to 6 and there is a continuous stabilization to slight decrease in the number of admissions to intensive care units. The number of hospital admissions is increasing among persons aged 79 to 89 years old and has stabilized for persons 30-49 years old in week 6. The proportion of patients with a positive SARS-CoV-2 test who are hospitalized because of a COVID-19 diagnosis has fallen to 52% in week 4. However, the proportion who are hospitalized because of COVID-19 is over 70% among the age groups above 60 years old in week 4.

The number of deaths among persons with a positive SARS-CoV-2 test has increased in week 6. The overall mortality rate is considered to be at a normal level, which is supported by the fact that the proportion of deaths estimated to be caused by covid-19 has declined to 61% in week 6. However, there are signs of increasing excess mortality among 85+ over the last week.

In general, there is an expectation that case numbers in the eastern part of Denmark will continue to decrease in the coming weeks. However, there is a risk of a continuous increase in case numbers in other regions of the country, and that case numbers will also continue to increase in older age groups. There is a risk that increasing case numbers among older persons may lead to increased risk of COVID-19-related hospital admissions.



Summary

- The number of new cases with covid-19 has increased from week 5 to week 6, corresponding to an increase of 5,395 cases per 100,000 inhabitants.
The positive percentage has increased from 35.4% in week 5 to 39.8% in week 6. A decrease is seen in both the number of PCR tests and especially in antigen tests.
- The incidence is now highest in the North Jutland Region (7,259 per 100,000 inhabitants), and the incidence is increasing in large parts of the region. The incidence in the Capital Region (3,795 per 100,000 inhabitants) is declining, but has stabilized in Copenhagen and Frederiksberg municipalities. The incidence is relatively stable in several municipalities in the Region of Southern Denmark, the Central Jutland Region and Region Zealand, but several municipalities are still growing.
- The positive percentage is increasing in large parts of the country, which is seen in parallel with a decrease in the number of tests. Week 6 shows the highest positive percentage in the North Jutland Region (44%).
- At the national level, the incidence is highest among the 20-24-year-olds (7,109 per 100,000 inhabitants), followed by the 16-19-year-olds (6,974 per 100,000 inhabitants). There is a decline among the 0-15-year-olds.
- The number of new admissions with covid-19 has increased to 2,774 in week 6, and the increase is seen in all age groups except the 10-19-year-olds and 30-49-year-olds, where a decrease is seen. The largest increase is seen in the age group 90+ -year-olds (40%), while the 70-79-year-olds are the age group that now constitutes the largest group among the newly admitted, followed by the 80-89-year-olds and the 30-39-year-olds.
- The proportion of new admissions among persons admitted due to a covid-19 diagnosis has fallen further to 52% in week 4 compared to 55% in week 3. For the 0-59-year-olds are the proportion admitted with a covid-19 diagnosis 44% in week 4, while for the 60+-year-olds it is 71% in week 4.
- Data from the Danish covid-19 intensive database show that the proportion of covid-19-related admissions to intensive care where covid-19-specific treatment has been given are 71% in week 5 and 67% in week 6. Link: [Danish Intensive Database](#)
- The number of covid-19-related deaths has increased to 194 in week 6 compared to 145 in week 5.
- In recent weeks, an overall mortality rate has been seen at a normally expected level. However, there are signs of increasing mortality among the elderly aged 85+ in recent weeks. However, the figures from the last week in particular must be interpreted with caution due to delays in registration.



- This week's report includes probability calculations for the number of covid-19-related deaths that are estimated to have occurred “with” covid-19, but not “of” covid-19. The inventory covers the period from week 45 up to and including week 6, and in week 6 it is estimated that 38.5% of the covid-19-related deaths occurred for a reason other than covid-19. There has been a gradual increase over the inventory period, where the proportion of covid-19-related deaths that have occurred for a reason other than covid-19 was below 20% until the end of 2021, and is thus estimated to reflect the gradual spread of the omicron variant, which is less lethal.
- Like last week, this week's report includes an inventory of validated causes of death among registered covid-19-related deaths both for the entire pandemic and for the past 8 weeks. The inventory for the entire pandemic shows that the proportion of deaths with covid-19 (and not due to covid-19) has increased in the past month as the omicron variant has led to a high level of societal infection. However, it must be taken into account that a large proportion of the covid-related deaths still lack validation corresponding to 45% in week 6.
- Infection among nursing home residents increased from 1,647 cases in week 5 to 2,055 in week 6. There were 88 covid-19-related deaths among nursing home residents in week 6 compared with 61 in week 5.
- Infection among employees in institutions and primary schools is declining, while there is an increase in the other staff groups, including among hospital employees and employees in the care sector from week 5 to week 6.
- The share of BA.2 out of all cases continues to increase, and amounts to approx. 92% in week 6 compared to approx. 85% in week 5. An increasing proportion of BA.2 cases are BA.2 with the mutation H78Y. BA.1 now amounts to only approx. 8%, of which BA.1.1 makes up approx. 4%. It should be noted that the latest figures of variants for week 6 should be interpreted with reservations, as the number of sequences is still low.
- In week 6, an increase in SARS-CoV-2 concentration is seen in the wastewater at national level as well as for all 5 regions.



Overall assessment

The infection has increased between week 5 and week 6, corresponding to 7% at national level. The infection is decreased by 7% in the Capital Region, while the infection increased by 28% in the North Jutland Region, followed by 12% in the Region of Southern Denmark and 9% in the Central Jutland Region.

The positive percentage is still rising across the country, and in week 6 is highest in the North Jutland Region with 44%. Where in week 5 a decrease in the concentration was registered in the Capital Region and Region Zealand, an increase in the concentration of SARS-CoV-2 was registered in the wastewater samples nationally and in all regions.

The infection continues to fall among the children, but increases among the younger adults in the age group 16-39 years and among the older age groups over 50 years. There are still signs of a stabilization in the infection among the 30-49-year-olds. The number of new admissions increases in week 6, corresponding to 16%, while there is still a stabilization to a slight decrease in the number of admissions to intensive care. The number of admissions is increasing among the elderly corresponding to the age groups 70-89-year-olds, and shows signs of stabilization for the 30-49-year-olds in week 6.

Proportion of patients with a positive covid-19 test admitted due to a covid-19 test diagnosis has dropped to 52% for week 4, however, the proportion admitted due to covid-19-diagnosis, over 70% among the older age groups over 60 in week 4.

The number of deaths for people with a positive SARS-CoV-2 test has increased in week 6. The overall mortality rate is still considered to be at a normal level, which is supported by the fact that the proportion of deaths estimated to be caused by covid-19 has dropped to 61% in week 6. However, there are signs of increasing excess mortality among 85+ over the last week.

It is expected that the infection in the coming weeks will continue to fall further in the eastern parts of Denmark. At the same time, it must continue to be expected that there is a risk that the infection will continue to increase in the other regions, and that the infection is also expected to increase among the older age groups. Increasing incidence of infection among the elderly will continue to pose a risk of derived covid-19-related admissions.

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

Note: Please note that "Incidence per 100,000 inhabitants", "Confirmed cases (PCR)", "New hospital admissions" and "Incidence per 100,000 inhabitants" from week 4 include reinfections, so there will be a difference of approx. 5% when compared to previous weeks.



key figures

Covid-19

Table 1. COVID-19: Key numbers and trends, weekly, 2021/2022

Table 1. Covid-19: Key figures and trends, broken down by week, 2021/2022

Covid-19	2022						Trend week
	1	2	3	4	5	6	1-6
Incidence pr. 100,000 inhabitants 2,180		2,937	4,572 in most common	5,105	5,061	5,395	
Incidence pr. 100,000 with expected full effect of primary vaccination course * (+ 12-year-olds)	3,143	4,090	6,753	7,254	7,180	7,395	
Incidence pr. 100,000 med expected full effect of revaccination * (+ 12-year-olds)	1260.1	1707	3095	3,892	4,587 in most common	5,726	
Incidence pr. 100,000 unvaccinated * (+ 12-year-olds)	3,458	4,071	5,939	6,037	5,490	5,596	
R (newly infected)	1.0	1.2	1.2	1.0	1.0	0.9	
Number of tests performed (PCR)	1,279,243	1,335,845	1,539,900	1,305,989	1,088,298	1,023,574	
Confirmed cases (PCR)	127,347	172,105	267,948	299,212	296,630	316,181	
Proportion of confirmed cases with expected full effect of primary vaccination course (%)	52.4	41.6	38.2	32.0	27.1	21.6	
Proportion of confirmed cases with expected full effect of revaccination (%)	20.5	24.5	31.7	38.6	47.6	57.3	
Positive Percentage (PCR)	13.9	18.2	24.8	29.7	35.4	39.8	
Number of tests performed (antigen)	1,541,689	1,597,518	1,682,121	1,249,869	819,679	641,090	
Confirmed cases (antigen, PCR confirmed) **	30,988 in most common	38,740	56,788	54,202	47,100	-	
Positive percentage (antigen)	2.0	2.4	3.4	4.3	5.8	-	

Notes to table:

The contact number (R) and the positive percentage in this table are calculated solely on the basis of PCR tests from the public sector.

Note that vaccinated children aged 5-11 years are not yet included with vaccination status in data for GDPR reasons.

Note: Please note that "Incidence per 100,000 inhabitants", "Confirmed cases (PCR)", "New hospital admissions" and "Incidence per 100,000 inhabitants" from week 4 includes reinfections, which is why there will be a difference of approx. 5% when compared to previous weeks.

* The population for calculating incidents is described in the data base under the section "Breakthrough infections".

** Includes only individuals who have a confirmatory positive PCR test. It is not possible to calculate for the current week, as data is calculated with a three-day delay.



Table 2. COVID-19: Key numbers and trends for hospital admissions and deaths, weekly, 2021/2022

Table 2. Covid-19: Key figures and trends for hospitalized and dead, by week, 2021/2022

Covid-19	2022						Trend week 1-6
	1	2	3	4	5	6	
New hospital admissions	1,123	1,302	1,583	1,959	2,391	2,774	
Proportion of new hospital admissions with expected full effect of primary vaccination course (%)	34.9	30.0	28.7	24.8	19.2	18.0	
Proportion of new hospital admissions with expected full effect of revaccination (%)	28.7	31.3	34.3	39.9	48.2	53.6	
New hospital admissions per 100,000 unvaccinated * (+ 12-years old)	60	66	67	73	89	92	
New hospital admissions per 100,000 with expected full effect of primary vaccination course * (+ 12-year-olds)	19	23	32	42	48	62	
New hospital admissions per 100,000 with expected full effect of revaccination * (+ 12-years old)	16	17	20	26	37	47	
Number admitted on Monday morning	777	802	894	1,008	1,087	1,465	
Number admitted to intensive care on Monday morning	74	52	43	32	31	25	
Number of dead **	109	106	111	137	145	194	

Note to Table: Please note that "Incidence per 100,000 inhabitants", "Confirmed cases (PCR)", "New hospital admissions" and "Incidence per 100,000 inhabitants" from week 4 includes reinfections, which is why there will be a difference of approx. 5% when compared to previous weeks.

* The population for calculating incidents is described in the data base under the section "Breakthrough infections".

** The number of deaths is updated retrospectively as data may be delayed due to post-registration.

Table 3. COVID-19: Key numbers and trends for cumulative vaccination, weekly, 2021/2022

Table 3. Covid-19: Key figures and trends for vaccination adherence, by week, 2021/2022

Covid-19	2022						Trend week 1-6
	1	2	3	4	5	6	
Number of people who have started vaccination	4,828,403	4,838,159	4,843,548	4,846,009	4,845,707	4,845,488	
Vaccination started (%)	82.2	82.4	82.5	82.5	82.5	82.5	
Number of persons with completed primary vaccination course	4,670,264	4,709,594	4,731,860	4,746,568	4,752,087	4,756,351	
Primary course of vaccination (%)	79.5	80.2	80.6	80.8	80.9	80.9	
Number of people who have received the first revaccination	3,176,217	3,382,254	3,509,732	3,569,310	3,596,374	3,614,337	
Revaccination (%)	54.1	57.6	59.8	60.8	61.2	61.5	



Trends - covid-19

This section shows more detailed graphs and tables to illustrate the evolution of covid 19 over 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, 2021/2022

Table 4. Covid-19: Key figures and trends for regions, by week, 2021/2022

Covid-19	Region	2022 week						Trend week 1-6
		1	2	3	4	5	6	
Incidence pr. 100,000 inhabitants	The capital	2657	3,492	5,005	4,829	4,070	3,795	
	Central Jutland	1990	2,815	4,376	5,078	6,054	6,567	
	North Jutland	1905	2,432	3,825	5,236	5,695	7,259	
	Zealand	2005	2,606	4,446	5,068	4,490	4,670	
	Southern Denmark	1856	2,626	4,484	5,431	5,494	6,076	
Positive percentage	The capital	17.5	22.5	28.6	31.1	34.7	36.4	
	Central Jutland	13.2	17.7	24.3	31.0	39.1	43.6	
	North Jutland	13.1	16.4	22.5	30.2	36.5	44.0	
	Zealand	13.3	16.6	23.8	28.0	31.8	35.3	
	Southern Denmark	10.7	14.7	22.1	27.9	34.0	39.7	
R (newly infected)	The capital	1.0	1.2	1.1	0.9	0.9	0.8	
	Central Jutland	1.0	1.3	1.2	0.9	1.1	0.9	
	North Jutland	1.0	1.2	1.2	1.1	1.1	1.0	
	Zealand	0.9	1.1	1.1	0.9	0.9	0.8	
	Southern Denmark	0.9	1.2	1.1	1.0	1.0	0.9	
New hospital admissions	The capital	540	566	718	882	896	934	
	Central Jutland	150	208	228	295	375	546	
	North Jutland	82	102	114	117	195	274	
	Zealand	206	247	290	350	477	454	
	Southern Denmark	131	164	219	295	420	554	
	Unknown region	14	15	14	20	28	12	



Growth rates in the municipalities

Figure 1. COVID-19: Weekly change in incidence, percentage.

Figure 1. Covid-19: Percentage change in weekly incidence.

Procentvis ændring i ugentlig incidens over 7 dage

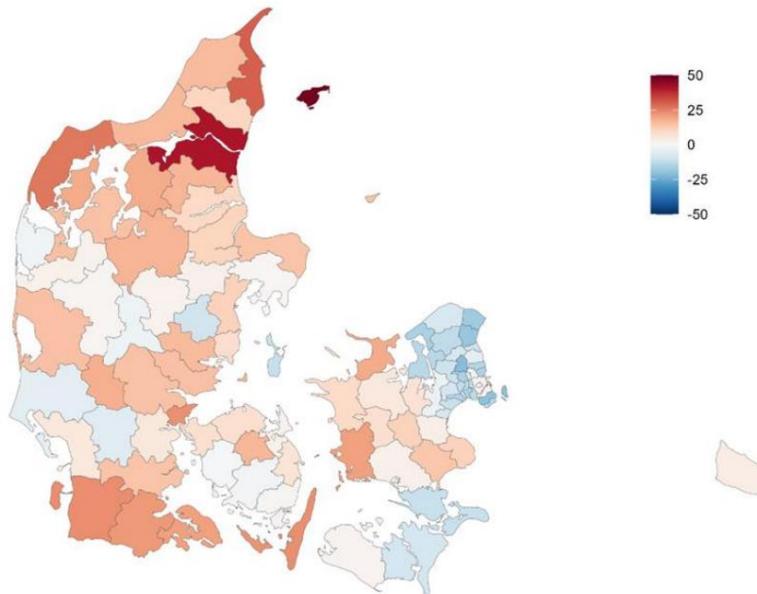


Figure 2. COVID-19: Weekly change in positive-percentage, percentage.

Figure 2. Covid-19: Percentage change in weekly positive percentage

Procentvis ændring ugentlig positivprocent over 7 dage

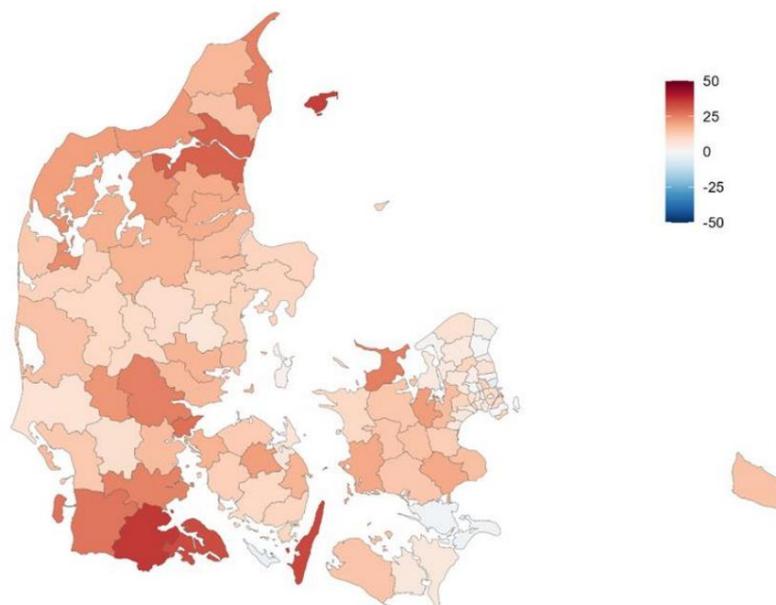
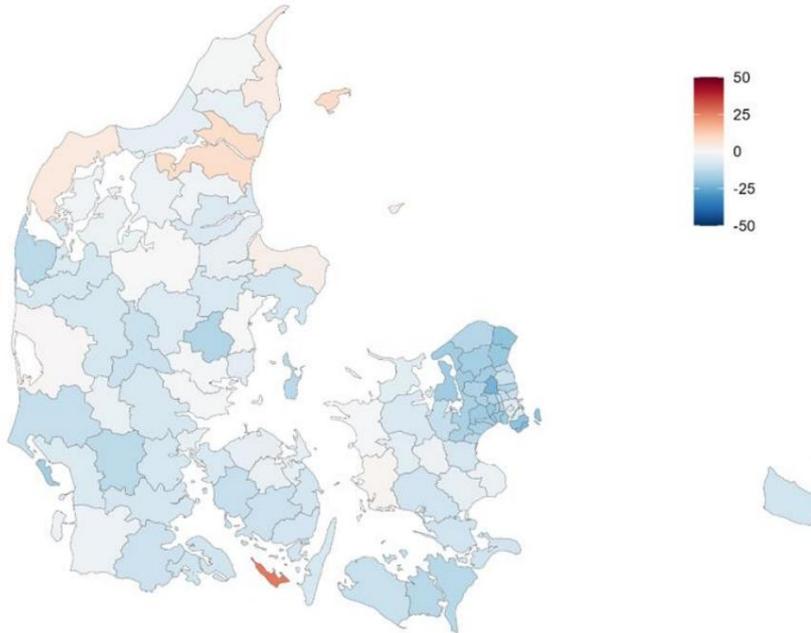




Figure 3. COVID-19: Weekly change in number of tests, percentage.
Figure 3. Covid-19: Percentage change in weekly number of tests

Procentvis ændring i ugentlig antal test over 7 dage





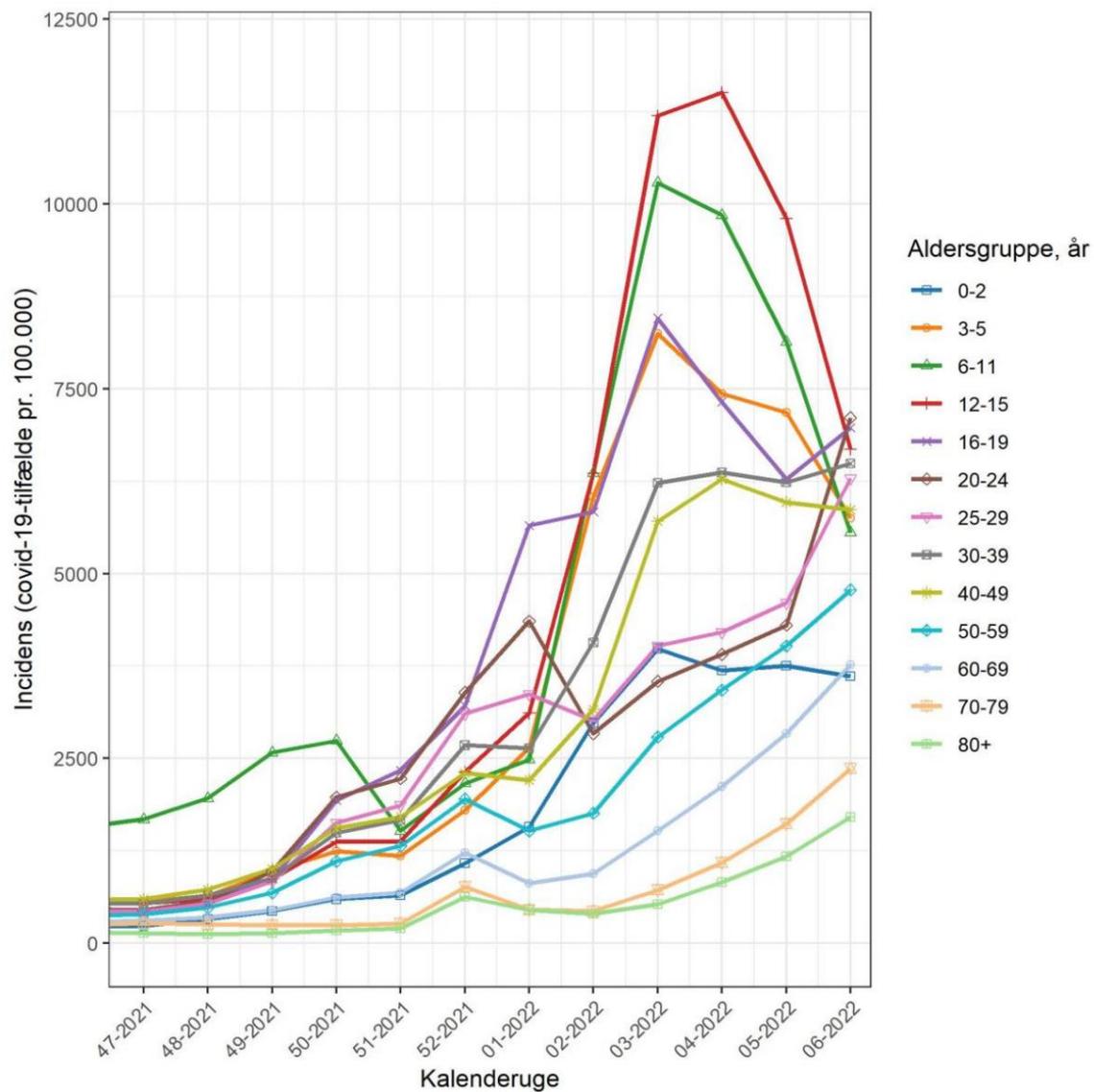
Age incidence

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





Newly admitted

See also age distribution curves of new entrants 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, hospitalized Monday morning and confirmed cases

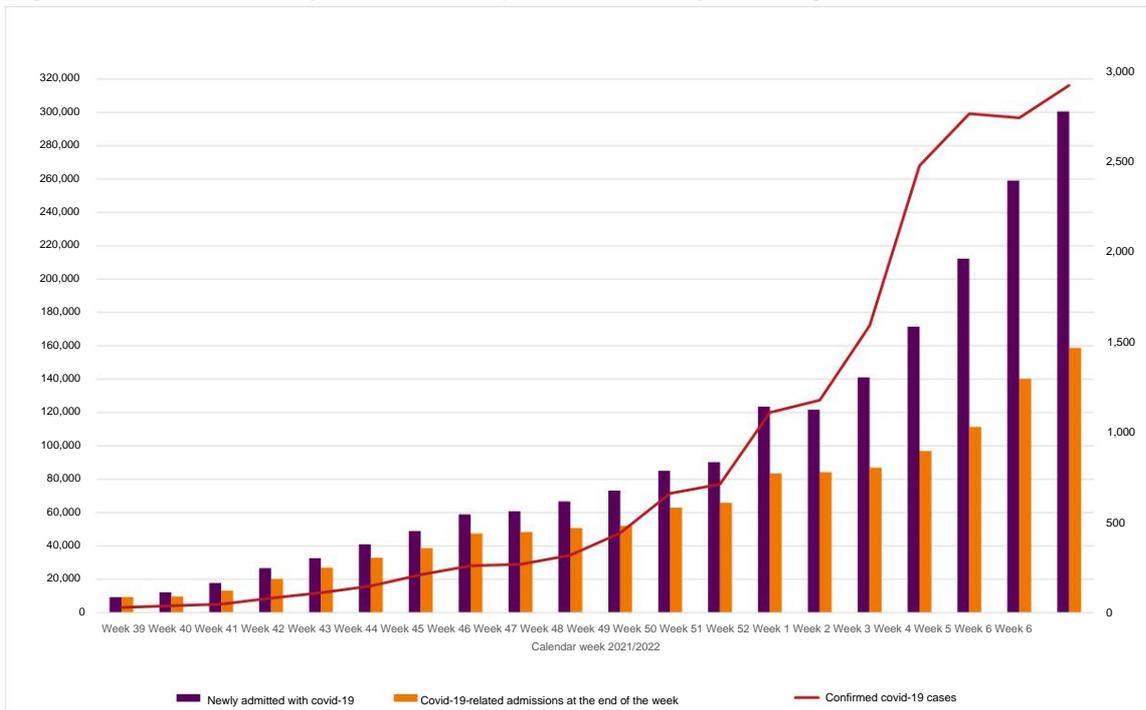
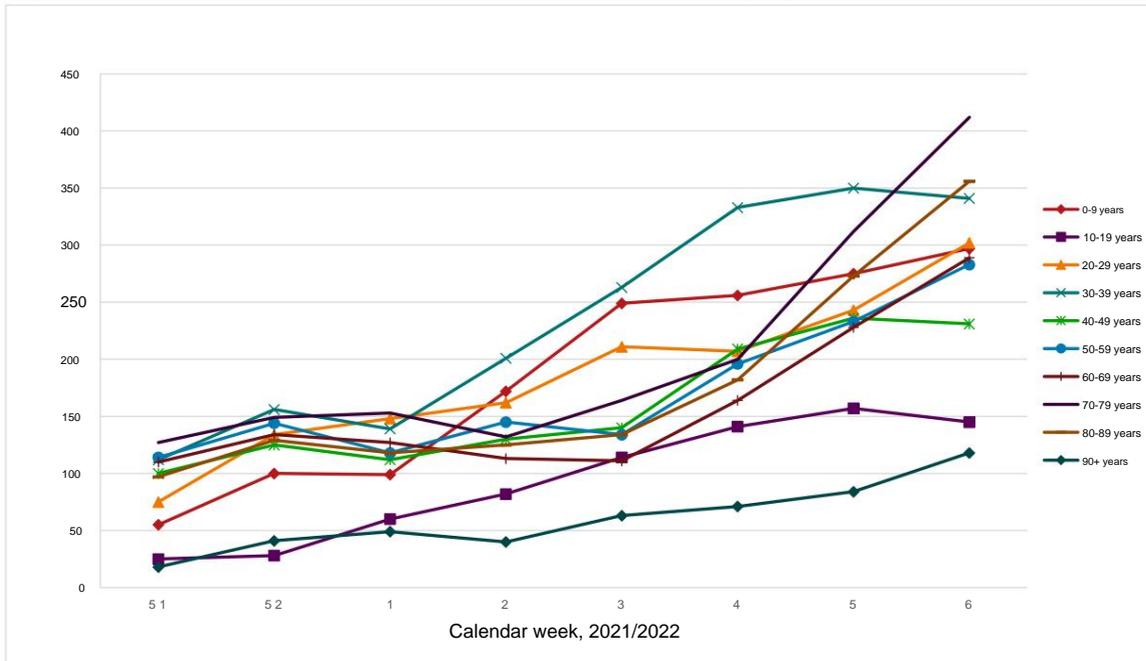




Figure 6. COVID-19: Weekly numbers of PCR-positive hospital admissions by age group
Figure 6. Covid-19: Weekly number of new admissions by age group





The following figures in this section are updated retrospectively.

Figure 7. COVID-19: Proportion of hospital admissions with a positive SARS-CoV-2 test with a COVID-19 diagnosis (red), with a respiratory or tentative COVID-19 diagnosis (green), or with another diagnosis (blue), June 1st 2020 to January 30th 2022

Figure 7. Covid-19: Proportion of new admissions with positive SARS-CoV-2 sample admitted due to covid-19 diagnosis, due to respiratory or obs covid-19 diagnosis, or due to other diagnosis, 1 June 2020 to 30 January 2022

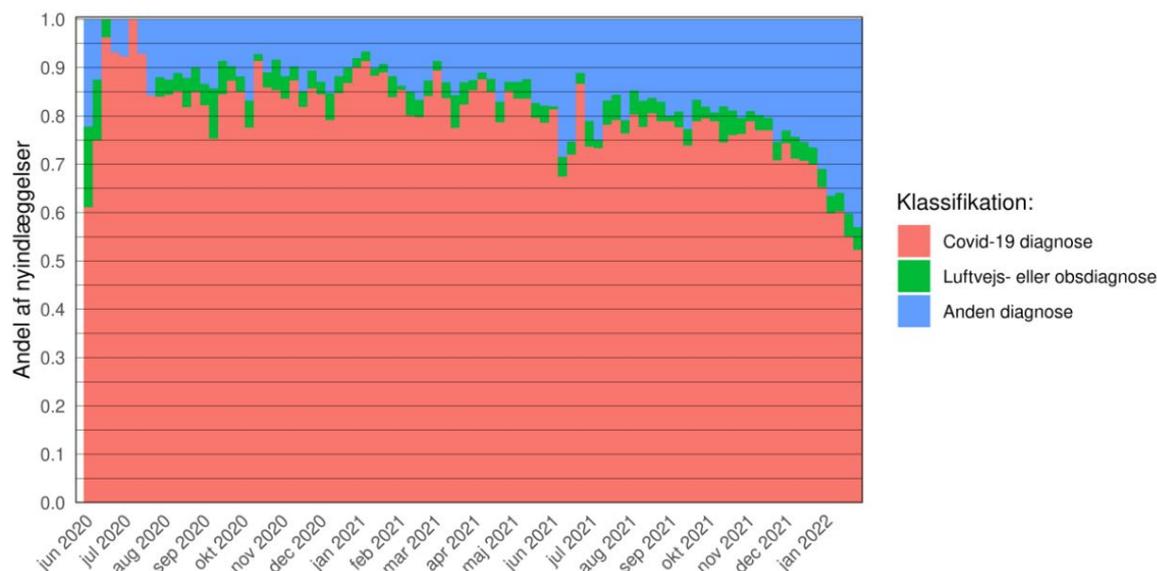


Table 5. COVID-19: Proportion of PCR-positive hospital admissions with a COVID-19 diagnosis, with a respiratory or tentative COVID-19 diagnosis, or with other diagnosis, June 1st 2020 to January 30th 2022

Table 5. Covid-19: Proportion of new admissions with positive SARS-CoV-2 sample admitted due to covid-19 diagnosis, due to respiratory or obs covid-19 diagnosis, or due to other diagnosis, 1 June 2020 to January 30, 2022

Diagnosis	2021/2022 week						Trend
	51	52	1	2	3	4	
Covid-19 diagnose	70%	65%	60%	60%	55%	52%	
Respiratory or observational diagnosis	4%	4%	4%	4%	5%	5%	
Second diagnosis	27%	31%	36%	36%	40%	43%	



Figure 8. COVID-19: Proportion of PCR-positive hospital admissions with a COVID-19 diagnosis (red), with a respiratory or tentative COVID-19 diagnosis (green), or with other diagnosis (blue) by age group, June 1st 2020 to January 30th 2022

Figure 8. Covid-19: Proportion of new admissions with positive SARS-CoV-2 sample admitted due to covid-19 diagnosis, due to respiratory or obs covid-19 diagnosis, or due to other diagnosis divided by age groups, 1 June 2020 to January 30, 2022

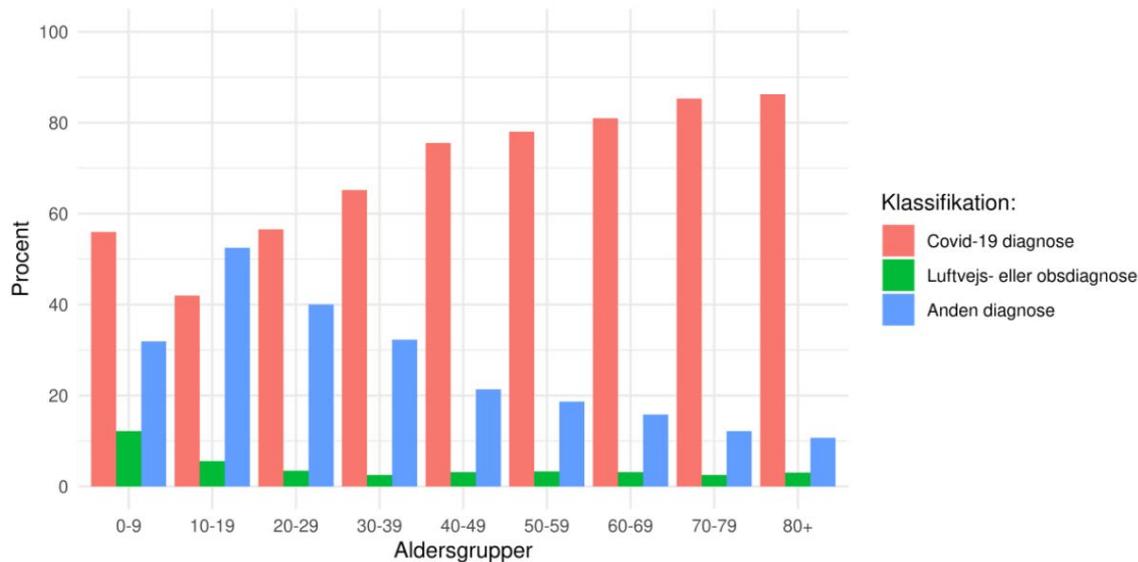


Table 6. COVID-19: Proportion of PCR-positive people admitted to hospital with a COVID 19 diagnosis, a respiratory or tentative COVID-19 diagnosis, or another diagnosis, who had a psychiatric admission during their hospitalization

Table 6. Covid-19: Proportion with positive SARS-CoV-2 sample admitted due to covid-19 diagnosis, respiratory or due to obs covid-19 diagnosis or other diagnosis that has been admitted to psychiatry during the course of admission

Diagnosis	Covid-19-related admissions to psychiatric wards						Trend
	2021/2022 week						
	51	52	1	2	3	4	
Covid-19 diagnosis	1.2%	1.4%	1.4%	2.1%	2.3%	0.5%	
Respiratory or observational diagnosis	0.0%	11.6%	2.1%	5.7%	0.0%	1.2%	
Second diagnosis	13.2%	13.6%	12.5%	11.1%	8.1%	7.2%	



Table 7. COVID-19: Proportion of PCR-positive hospital admissions with a COVID-19 diagnosis (red), with a respiratory or tentative Covid-19 diagnosis (green), or with other diagnosis (blue), by age groups 0-59 and 60+ years old

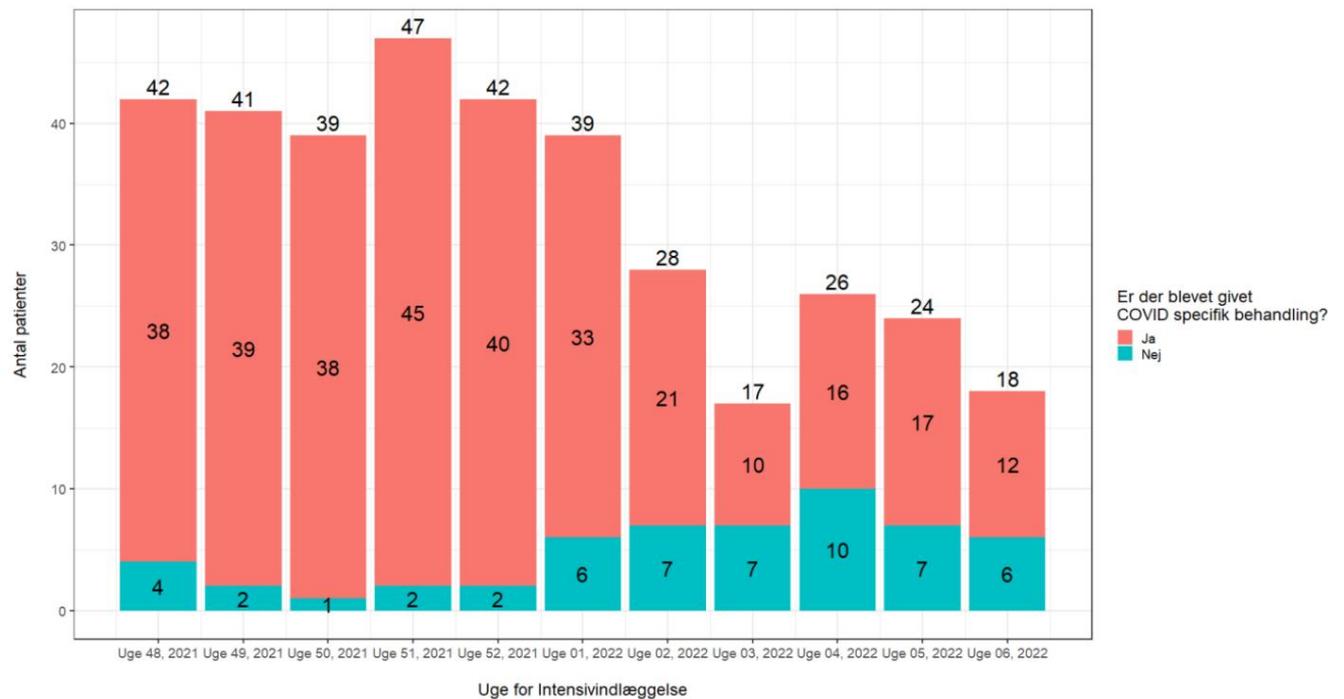
Table 7. Covid-19: Proportion of new admissions with positive SARS-CoV-2 samples admitted due to covid-19 diagnosis, or due to respiratory or obs covid-19 diagnosis, or due to other diagnosis, divided by age groups 0-59-year-olds and 60+ -year-olds

Diagnosis / age groups	2021/2022 week						Trend
	51	52	1	2	3	4	
0-59-year-olds							
Covid-19 diagnosis	59.5%	56.4%	52.0%	54.5%	49.4%	44.2%	
Respiratory or observational diagnosis	3.1%	4.4%	3.9%	4.1%	5.8%	5.2%	
Second diagnosis	37.4%	39.3%	44.0%	41.4%	44.8%	50.6%	
60+ year olds							
Covid-19 diagnosis	81.1%	78.8%	72.7%	72.0%	71.4%	70.8%	
Respiratory or observational diagnosis	2.2%	2.6%	3.9%	3.6%	1.6%	3.4%	
Second diagnosis	16.7%	18.6%	23.4%	24.3%	27.0%	25.9%	



Figure 9. COVID-19: Numbers of intensive care admissions with a positive SARS-CoV-2 test, who received treatment specifically for COVID-19 (Yes (red), No (blue)), 2021-2022

Figure 9. Covid-19: Number of new admissions on intensive care with SARS-CoV-2 positive sample receiving covid-19 specific treatment, 2021-2022





SARS-CoV-2 variants

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

<https://www.covid19genomics.dk/home>

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

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

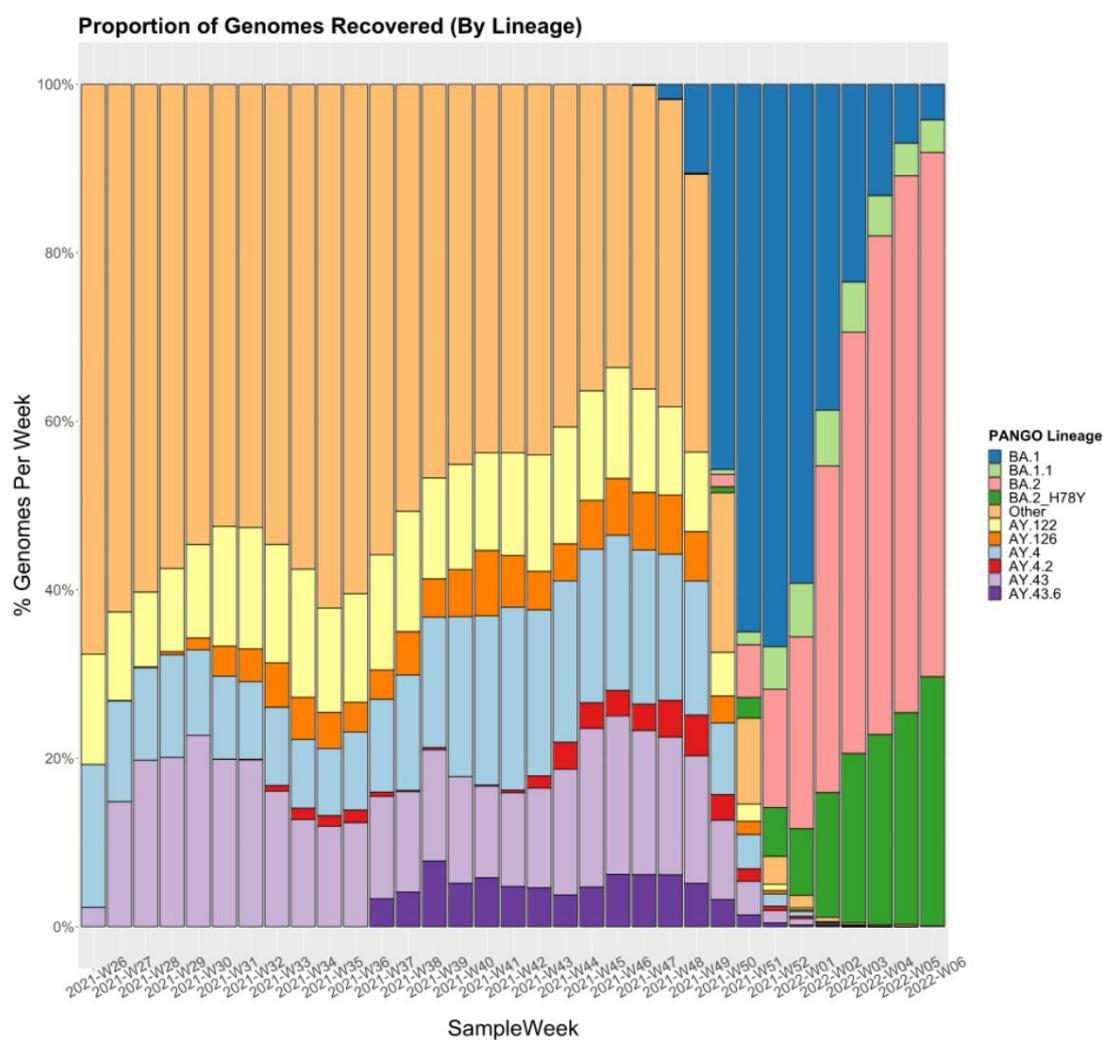




Table 8. COVID-19: The 20 most frequently observed sub (variants) based on whole-genome sequencing data for the last four weeks, 2022

Table 8. Covid-19: The 20 most frequently observed (sub) variants based on whole genome sequencing data in the last four weeks, 2022

The 20 most frequently observed (sub) variants based on whole genome sequencing data in the last 4 weeks					
Lineage	WHO	3	4	5	6
BA.2	Omicron	8029 (50.06%)	7822 (59.20%)	6833 (63.74%)	644 (62.22%)
BA.2_H78Y	Omicron	3227 (20.12%)	2984 (22.59%)	2695 (25.14%)	306 (29.57%)
BA.1	Omicron	3769 (23.50%)	1749 (13.24%)	751 (7.01%)	44 (4.25%)
BA.1.1	Omicron	956 (5.96%)	633 (4.79%)	415 (3.87%)	40 (3.86%)
None		21 (0.13%)	18 (0.14%)	18 (0.17%)	1 (0.10%)
AY.4	Delta	11 (0.07%)	0 (0.00%)	2 (0.02%)	0 (0.00%)
BA.3	Omicron	1 (0.01%)	0 (0.00%)	2 (0.02%)	0 (0.00%)
AY.121	Delta	1 (0.01%)	0 (0.00%)	1 (0.01%)	0 (0.00%)
AY.126	Delta	4 (0.02%)	0 (0.00%)	1 (0.01%)	0 (0.00%)
AY.4.5	Delta	1 (0.01%)	0 (0.00%)	1 (0.01%)	0 (0.00%)
B.1.617.2	Delta	0 (0.00%)	0 (0.00%)	1 (0.01%)	0 (0.00%)
AY.103	Delta	1 (0.01%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
AY.112	Delta	1 (0.01%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
AY.122	Delta	8 (0.05%)	3 (0.02%)	0 (0.00%)	0 (0.00%)
AY.122.3	Delta	1 (0.01%)	1 (0.01%)	0 (0.00%)	0 (0.00%)
AY.127	Delta	2 (0.01%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
AY.132	Delta	0 (0.00%)	1 (0.01%)	0 (0.00%)	0 (0.00%)
AY.33	Delta	1 (0.01%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
AY.36	Delta	1 (0.01%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
AY.4.2	Delta	5 (0.03%)	1 (0.01%)	0 (0.00%)	0 (0.00%)
Total		16053	13217	10720	1035

Note to table: Number of variants may change when multiple samples are sequenced and included in the table. Last week's figures are incomplete

and shall be construed with reservations.



Figure 11. COVID-19: Hospital admissions per week by variant

Figure 11. Covid-19: New admissions per week by variant type

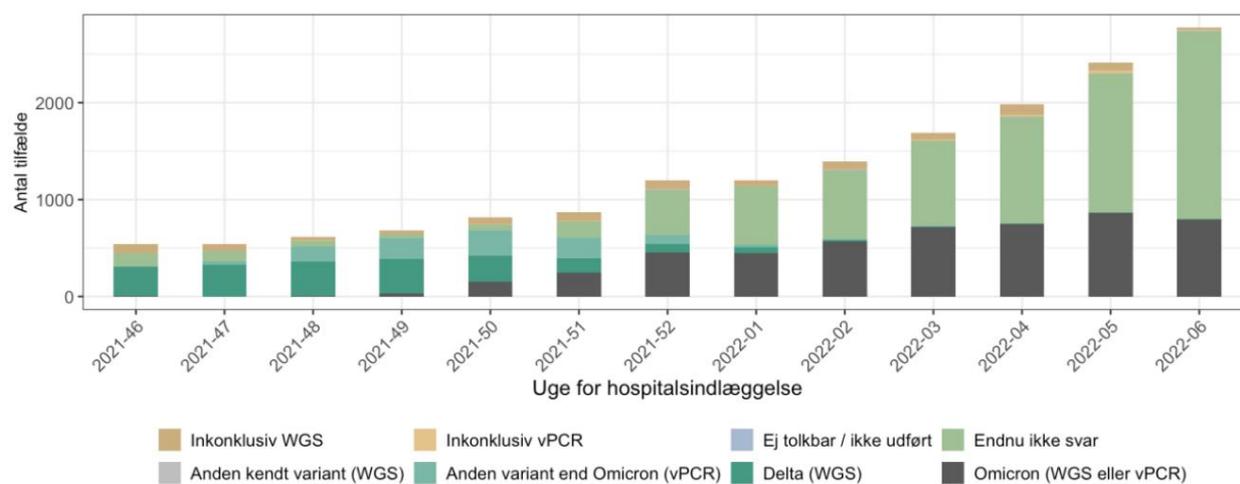


Table 9. COVID-19: Hospital admissions by week - proportion with variant analysis results

Table 9. Covid-19: New admissions per week - share with known variant response

Week of hospitalization	2021/2022		
	Week total *	Known among total (share)	Omicron among known (share)
50	59	51 (86%)	5 (-)
51	70	57 (81%)	13 (23%)
52	62	41 (66%)	15 (37%)
1	61	34 (56%)	16 (47%)
2	56	34 (61%)	29 (85%)
3	71	33 (46%)	30 (91%)
4	80	44 (55%)	43 (98%)
5	95	32 (34%)	30 (94%)
6	104	33 (32%)	31 (94%)

* Note to table: There will be a delay in response to variant PCR and whole genome sequencing, which is why there is ongoing registration of the recent weeks. Reservations must therefore be made, especially in recent weeks. At the same time, there are different reports regarding negative responses of variant PCR, including in the case of delta variant.



Figure 12. COVID-19: Intensive care admissions by week and variant

Figure 12. Covid-19: New admissions to intensive care per week by variant type

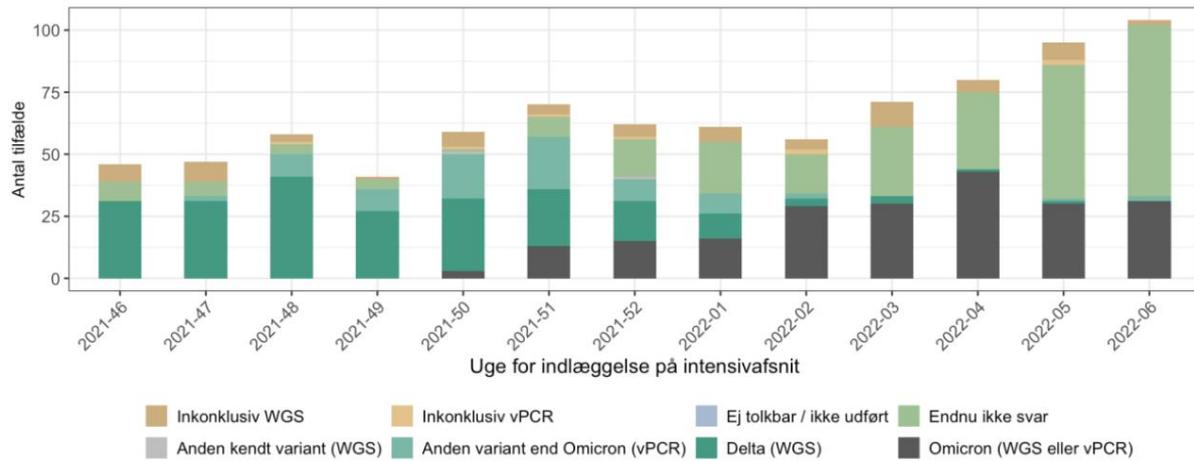


Table 10. COVID-19: Intensive care admissions by week - proportion with variant analysis results

Table 10. Covid-19: New admissions to intensive care per week - proportion with known variant response

Week of intensive hospitalization	2021/2022		
	Week total	Known among total (share%)	Omicron among known (share%)
50	59	51 (86%)	5 (-)
51	70	57 (81%)	13 (23%)
52	62	41 (66%)	15 (37%)
1	61	34 (56%)	16 (47%)
2	56	34 (61%)	29 (85%)
3	71	33 (46%)	30 (91%)
4	80	44 (55%)	43 (98%)
5	95	32 (34%)	30 (94%)
6	104	33 (32%)	31 (94%)

Note to table: There will be a delay in response to variant PCR and whole genome sequencing, which is why there is ongoing registration of the recent weeks. Reservations must therefore be made, especially in recent weeks. At the same time, there are different reports regarding negative responses of variant PCR, including in the case of delta variant.

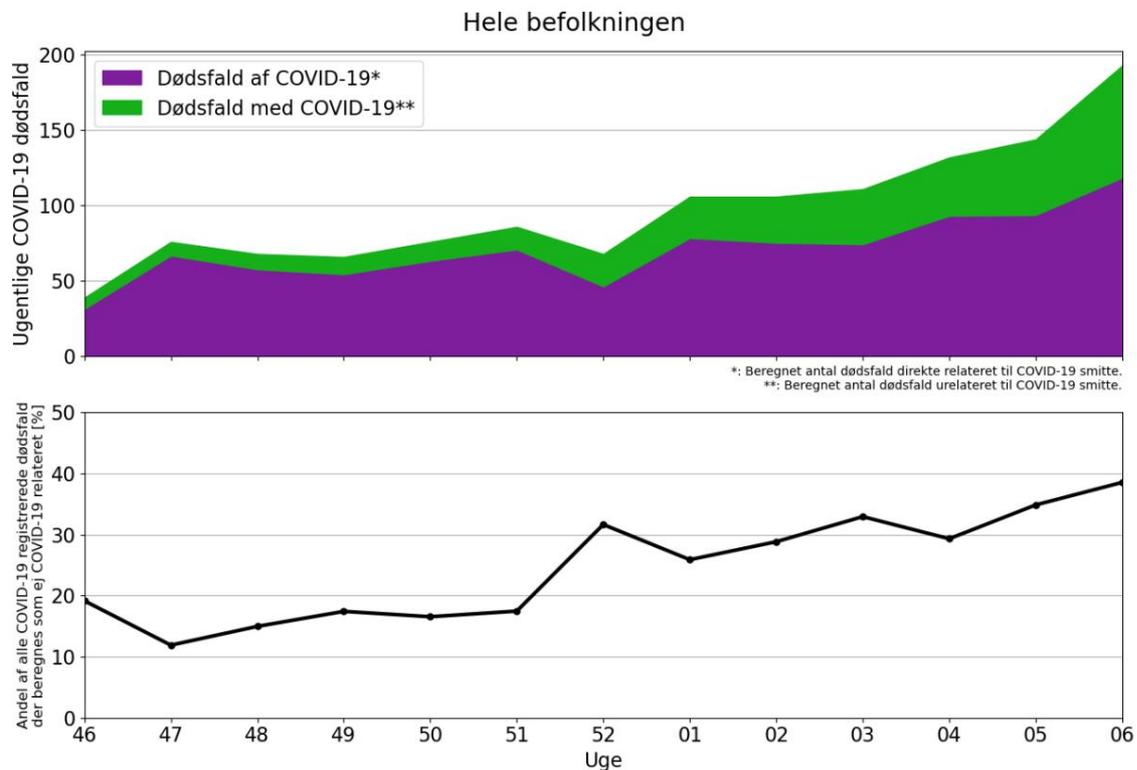


Mortality

SSI contributes every week with monitoring 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. In addition, SSI contributes with mortality monitoring together with 26 other European countries (www.euromomo.eu).

Figure 13. COVID-19: Estimated deaths due to or with COVID-19 and proportion of all COVID 19-registered deaths estimated not related to COVID-19, by week. Calculated number of deaths directly related to COVID-19 infection (purple), calculated number of deaths unrelated to COVID-19 infections (green), 2021/2022

Figure 13. Covid-19: Estimated deaths of or with covid-19 and proportion of all covid-19-registered deaths calculated as non-covid-19-related, broken down by weeks, 2021/2022



Note: Calculation performed by 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 positive covid-19 PCR test within 30 days, total, deaths "of" and "with" covid-19 and proportion of deaths with covid-19

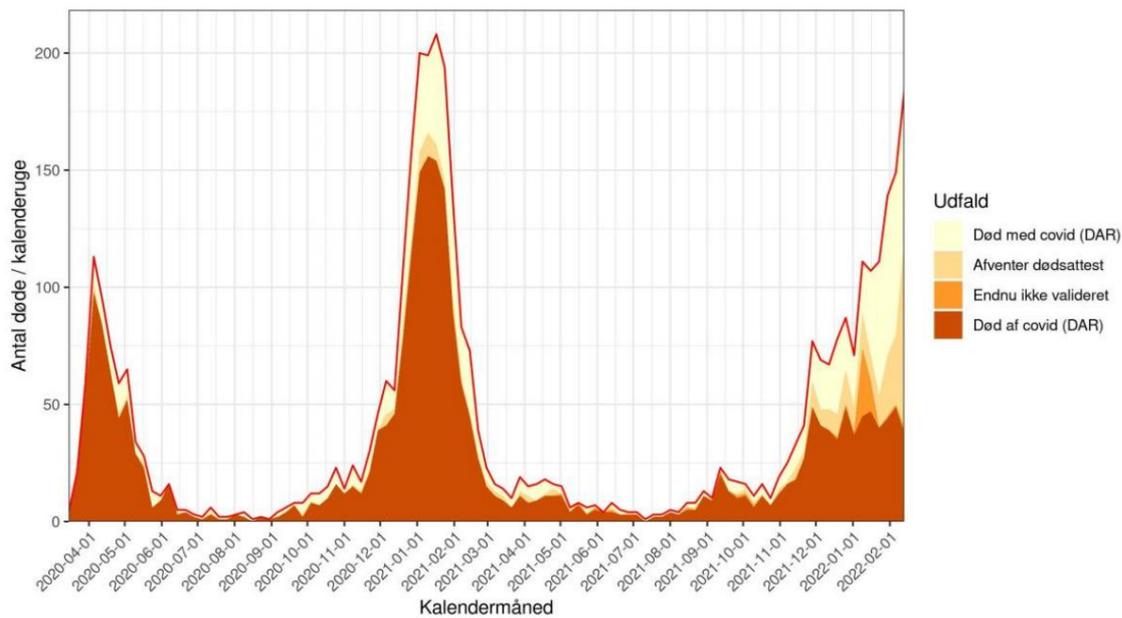
2021/2022, week	Deaths with positive covid-19 PCR test within 30 days, total	Deaths "of" covid-19	Deaths "with" covid-19	Percentage (%) of deaths "with" covid-19
46	39	32	7	19.2
47	76	67	9	11.9
48	68	58	10	15
49	66	55	11	17.4
50	76	63	13	16.5
51	86	71	15	17.5
52	68	46	22	31.6
1	106	79	27	25.9
2	106	75	31	28.8
3	111	74	37	32.9
4	111	93	39	29.3
5	144	94	50	34.8
6	144 193	119	74	38.5

Note: Calculation performed by PandemiX Research Center, RUC, in collaboration with EuroMOMO, SSI.



Figure 14. 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). March 2020 to February 2022

Figure 14. Covid-19: Deaths by and including covid-19 based on death certificates, March 2020 to February 2022

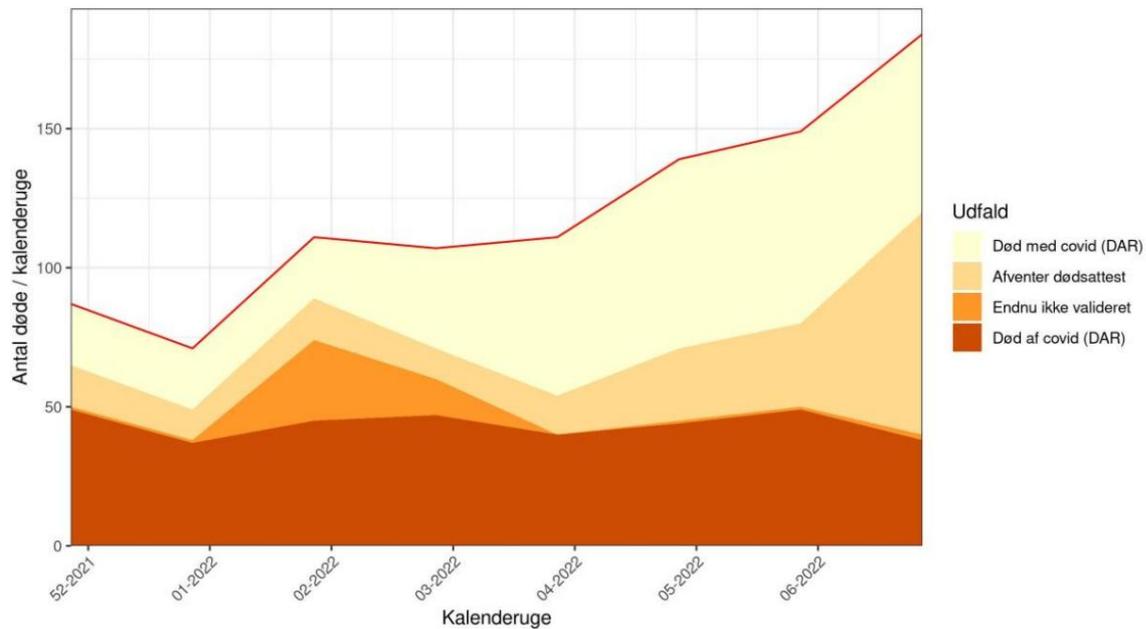


Note: Prepared on the basis of data from the Cause of Death Register (DAR) via the Danish Health and Medicines Authority



Figure 15. 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). Week 51 2021 to week 5 2022

Figure 15. Covid-19: Deaths by and including covid-19 based on death certificates, week 51 2021 to week 5 2022.



Note: Prepared on the basis of data from the Cause of Death Register (DAR) via the Danish Health and Medicines Authority



Breakthrough infections

Data are not updated retrospectively for Figures 16 and 17. SSI's dashboard for covid-19 breakthrough infections is updated daily, and a breakthrough infection report is published monthly on SSI's website.

Figure 16. COVID-19: Incidence per 100,000 unvaccinated people (12+ years old)

Figure 16. Covid-19: Incidence per 100,000 unvaccinated (+ 12-year-olds)

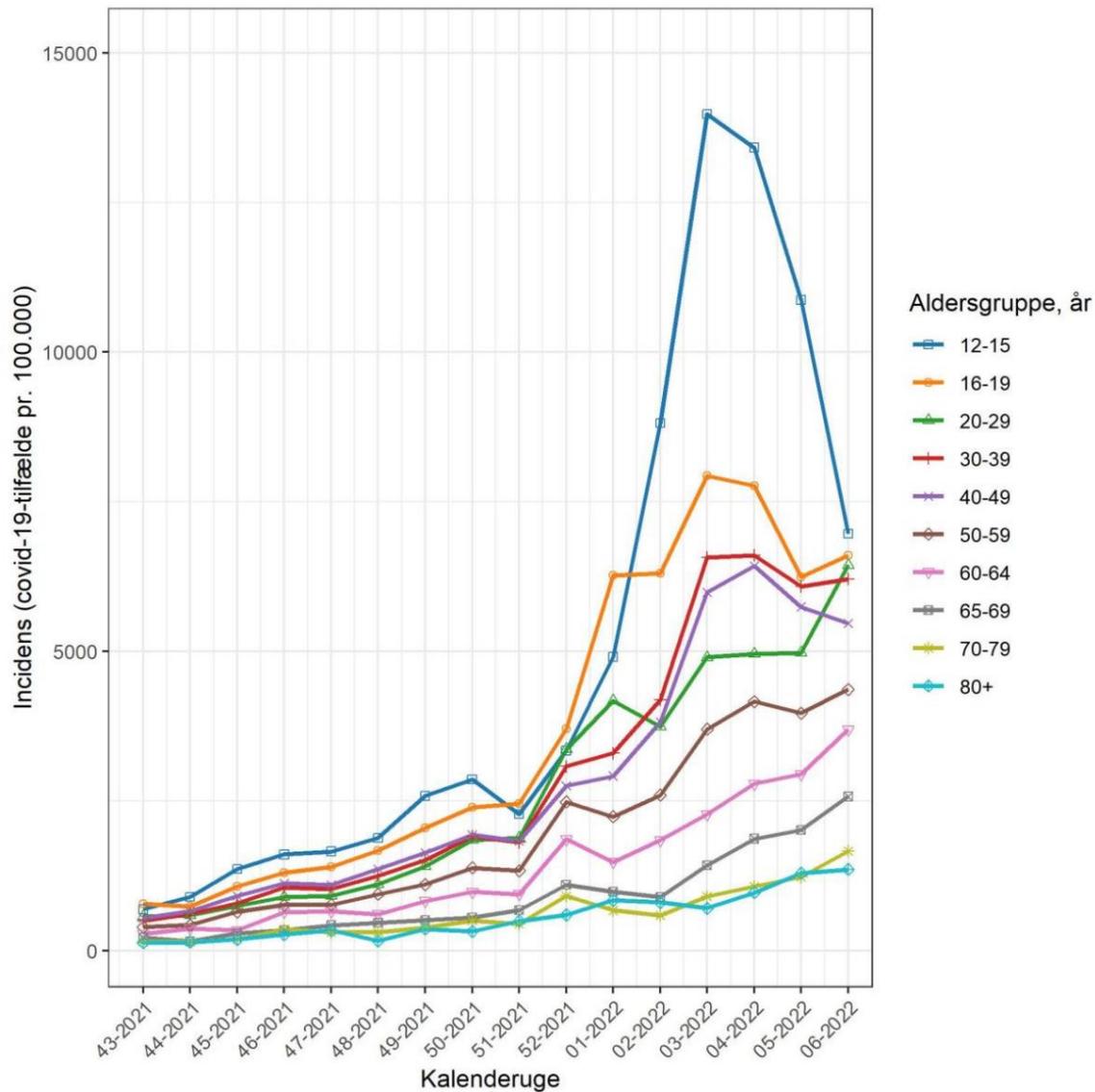
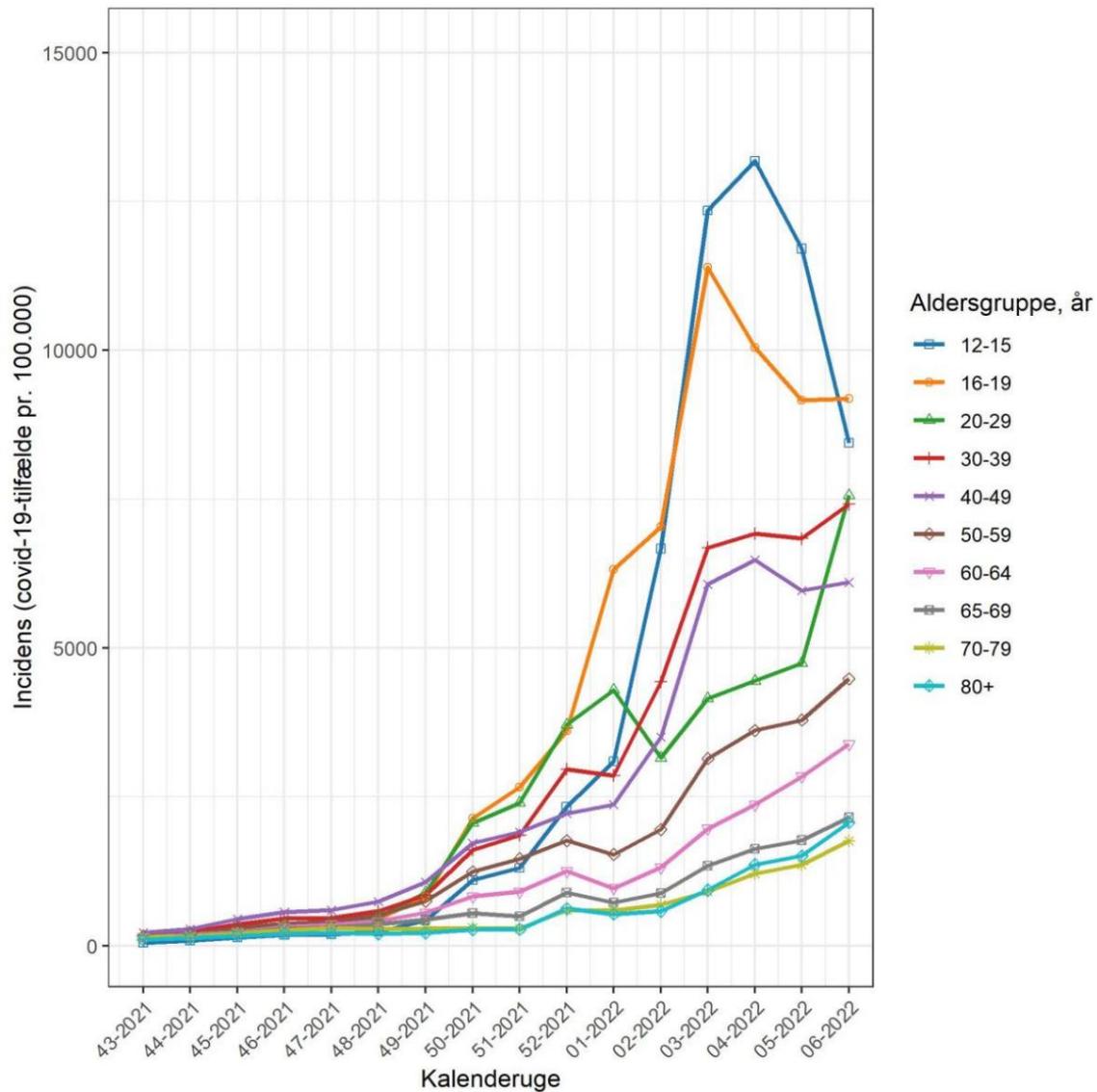




Figure 17. COVID-19: Incidence per 100,000 people with expected full effect of primary vaccination (12+ years old)

Figure 17. Covid-19: Incidence per 100,000 with expected full effect after primary vaccination (+ 12-year-olds)





Hospital outbreaks

Three out of 12 infection hygiene units have provided feedback on new and ongoing hospital outbreaks of covid-19 in the past week. The 3 infection hygiene units (3 regions) can report a total of 8 outbreaks. 4 out of the 8 outbreaks include both healthcare professionals (sp.) And patients (ptt.) (Distribution: 8 sp. And 5 ptt., 5 sp. And 7 ptt., 5 sp. And 4 ptt. And 4 sp. And 2 ptt.). The remaining 4 outbreaks include only infected patients (one large outbreak with 19, the others with 8, 7 and 4, respectively) but without infected healthcare professionals.

In week 5, 6 out of 12 infection hygiene units (3 regions) provided feedback on new and ongoing outbreaks. Three of the infection hygiene units have no ongoing outbreaks, the remaining 3 units can report a total of 9 outbreaks. One outbreak involves 18 patients, and one outbreak involves 13 people across both patients and staff. The remaining 7 outbreaks have all under 10 infected, of which 4 outbreaks involve patients only and two outbreaks only staff.

4 out of 12 infection hygiene units have provided feedback on new and ongoing hospital outbreaks of covid-19 in the past week. Two out of the 4 infection hygiene units (3 regions) can report a total of 3 minor outbreaks with 2, 3 and 4 infected patients, respectively, but without infected health personnel.

Nursing home

Table 12. COVID-19 at nursing homes

Table 12. Covid-19 in nursing homes

Covid-19, nursing home	2022 week				
	2	3	4	5	6
Confirmed cases among residents	609	810	1,205	1,647 in most common	2,055
Deaths among confirmed cases	32	41	48	61	88
Confirmed cases among residents with expected full effect after primary vaccination course	40	49	65	76	100
Confirmed cases among residents with expected full effect after revaccination	539	732	1,099	1,504	1,890 in most common
Nursing homes with confirmed cases	196	259	339	433	518



Special staff groups

Data is updated backwards. The groups shown cannot be further subdivided due to personal data considerations.

Table 13. COVID-19: Confirmed cases among employees in the social sector

Table 13. Covid-19: confirmed cases among employees in the social sector

Business	Covid-19, 2022								
	Quantity confirmed coincidence	Week 4 Incidence per 100,000 in the group	Week 4 Number (share,%) of confirmed cases with expected full effect after revaccination	Quantity confirmed coincidence	Week 5 Incidence per 100,000 in the group	Week 5 Percentage (%) of confirmed cases with expected full effect after revaccination	Quantity confirmed coincidence	Week 6 Incidence per 100,000 in the group	Week 6 Percentage (%) of confirmed cases with expected full effect after revaccination
Day care, day centers, home help, etc.	3,002	5,965	2,092 (69.7)	3,211	6,223	2,345 (73.0)	3,002	7,358	2,925 (77.0)
Nursing homes, etc.	7,439	6,026	5,444 (73.2)	8,659	7,015	6,664 (77.0)	10,192	8,257	8,122 (79.7)
Social in total	10,441	5,965	7,536 (72.2)	11,870	6,781	9,009 (75.9)	13,194	7,992	11,047 (79.0)

Table 14. COVID-19: Confirmed cases among employees in the health care sector

Table 14. Covid-19: confirmed cases among healthcare workers

Business	Covid-19, 2022								
	Number of confirmed cases	Week 4 Incidence per 100,000 confirmed cases in the group	Week 4 Number (share,%) of confirmed cases with expected full effect after revaccination	Number of confirmed cases	Week 5 Incidence per 100,000 in the group	Week 5 Percentage (%) of confirmed cases with expected full effect after revaccination	Number of confirmed cases	Week 6 Incidence per 100,000 in the group	Week 6 Percentage (%) of confirmed cases with expected full effect after revaccination
Health care and others	3,511	6,505	2,680 (76.3)	3,663	6,787	2,917 (79.6)	3,511	7,304	3,295 (83.6)
Hospitals	7,633	6,146	6,425 (84.2)	8,194	6,598	7,084 (86.5)	9,026	7,268	7,859 (87.1)
Total health	11,144	6,255	9,105 (81.7)	11,857	6,655	10,001 (84.3)	12,968	7,279	11,154 (86.0)

Table 15. COVID-19: Confirmed cases among employees in day care institutions

Table 15. Covid-19: confirmed cases among employees of institutions

Business	Covid-19, 2022								
	4 Number of confirmed cases per 100,000 in the group	Week 4 Incidence per 100,000 confirmed cases in the group	Week 4 Number (share,%) of confirmed cases with expected full effect after revaccination	Number of confirmed cases	Week 5 Incidence per 100,000 in the group	Week 5 Percentage (%) of confirmed cases with expected full effect after revaccination	Number of confirmed cases	Week 6 Incidence per 100,000 in the group	Week 6 Percentage (%) of confirmed cases with expected full effect after revaccination
Institutions *	7,961	5,815	5,891 (74.0)	8,473	10,237	6,772 (79.9)	7,362	6,061	6,061 (82.3)

* Age-integrated institutions, kindergartens, day care centers, crèches.

Table 16. COVID-19: Confirmed cases among employees in the education sector

Table 16. Covid-19: confirmed cases among employees in the education sector

Business	Covid-19, 2022								
	4 Number of confirmed cases per 100,000 in the group	Week 4 Incidence per 100,000 confirmed cases in the group	Week 4 Percentage (%) of confirmed cases with expected full effect after revaccination	Number confirmed coincidence	Week 5 Incidence per 100,000 in the group	Week 5 Percentage (%) of confirmed case with expected full effect after revaccination	Number confirmed coincidence	Week 6 Incidence per 100,000 in the group	Week 6 Percentage (%) of confirmed case with expected full effect after revaccination
Primary school	9,884	8,592	7,742 (78.3)	8,332	7,817	(81.6)	8,264	7,184	6,894 (83.4)
Colleges and vocational schools	2,398	1,994	(83.2)	2,384	6,273	2,039 (85.5)	2,541	6,686	2,242 (88.2)



Confirmed cases among travelers

Data are updated retrospectively in Table 17.

Table 17. COVID-19: Confirmed cases among travelers

Table 17. Covid-19: confirmed cases among travelers

Covid-19	2022 week					
	1	2	3	4	5	6
Number infected with travel activity	2,636	1,449	1,448 (in most common)	1,506	830	287
Proportion of infected with travel activity out of all new cases (%)	1.9	0.8	0.6	0.5	0.3	0.1

Note to table: Data on stays abroad are based on data from interview questions from STPS regarding travel activity within 14 days of positive test.

In week 6, most cases of infection are seen in travelers from Sweden (44), Spain (43) and Germany (42).



Sewage

You can read more about [wastewater](#) measurements on SSI's website with monitoring of [SARS-CoV-2](#).

Please note that as of January 3, 2022, a new PCR test has been introduced. Therefore, the results from before and after this date can not be directly compared.

Figure 18. COVID-19: Incidence and results from waste-water surveillance, 2021/2022

Figure 18. Covid-19: Incidence and results from wastewater measurements, 2021/2022

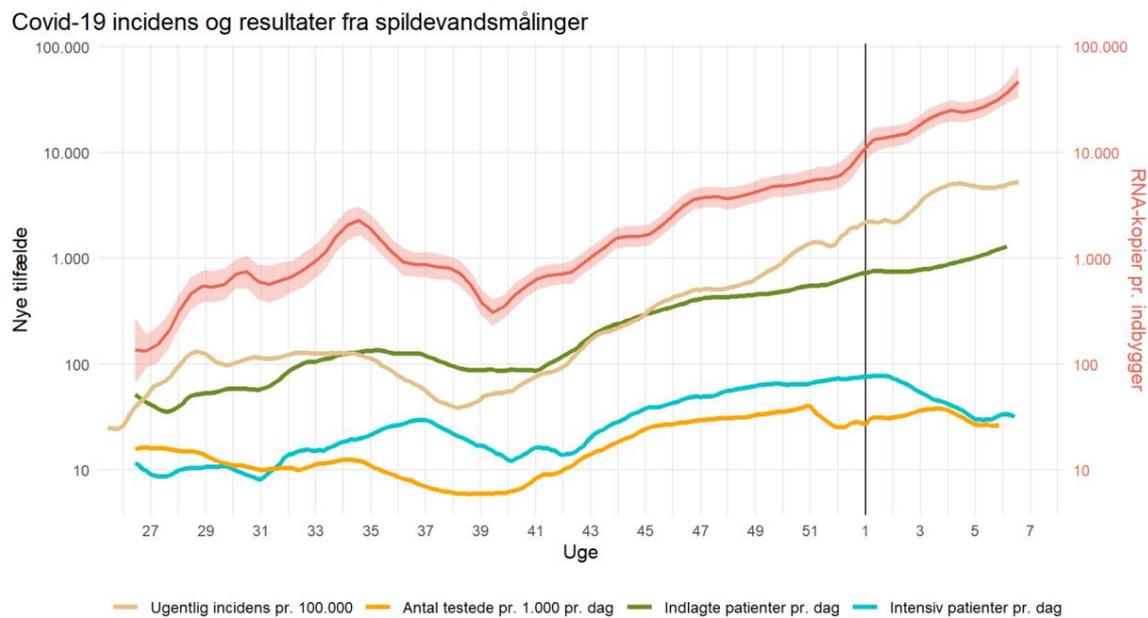
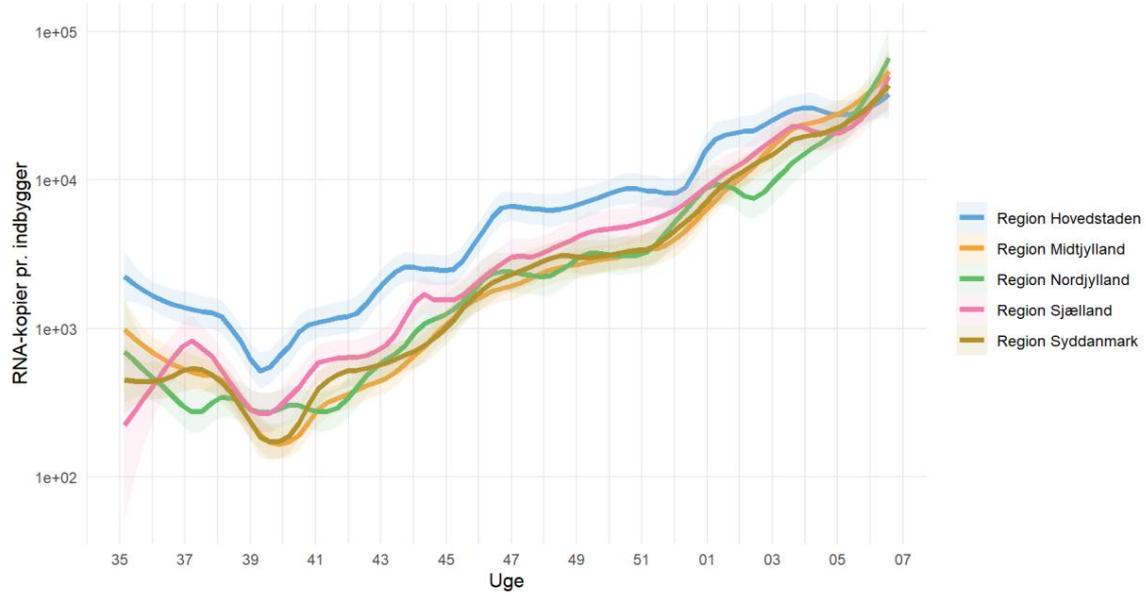




Figure 19. COVID-19. Results from waste-water surveillance by region, 2021/2022
Figure 19. Covid-19: Results from wastewater measurements by regions, 2021/2022

Resultater fra spildevandsmålinger





Data basis

Covid-19

This report is based on PCR-confirmed cases.

Data for the most recent week are drawn on the preparation date. Data is not updated backwards unless otherwise stated. Data for positive PCR tests are calculated on the sample date, and therefore there may be some samples from the most recent week for which no response has yet been received. However, it is considered that the data is sufficient to assess trends and signals. It is also assessed that backward changes in data are small and insignificant in relation to the conclusions in the report.

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

Definition of incidents in the report

In this report, the following method has been used to calculate the incidents per week:

When describing the country, region and age incidents in the report, the number of confirmed cases in the week in question (7 days calculated on a test date) per 100,000 inhabitants has been used.

Populations for calculating incidence

To be part of the underlying population, several criteria must be met, including that:

- the person must have a valid municipal code that matches an existing one commune
- gender must be stated
- the person must have a valid road code.

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



Growth rates in the municipalities

The analysis is based on the public infection figures, calculated per municipality (COVID-19 monitoring data¹). For each day in the past 7 days, the number of positives and the number of tests, respectively, are calculated. Subsequently, the total number of positives in the past 7 days has been converted to incidents per 100,000 inhabitants in the municipality (7-day incidents), as well as to a positive percentage in the municipality. It is noted that here an average of 7-days positive percentage rather than the daily positive percentages. Furthermore, it is noted that the data source used does not yet include reinfections, which is less important, however, as relative changes are considered.

As a simple estimate of the change over time, the change is calculated from a 7-day period relative to the previous 7-day period.

The comparison of 7-day incidents has been chosen not to include the weekly variation, where the incidence is higher on the weekdays where relatively more testing takes place.

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

For a more detailed definition of covid-19 admissions, see the [Focus Report on COVID 19-related hospital admissions during the SARS-CoV-2 epidemic](#), published d.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 diagnosed with another respiratory disease where the symptoms are completely or partially overlapping 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 of covid-19, but instead have completely different diagnoses during hospitalization, e.g. fracture, pregnancy or concussion.

In the day-to-day monitoring of the SARS-CoV-2 epidemic, SSI has defined a covid-19 related hospitalization as a hospitalization among individuals with a positive SARS-CoV-2-test taken from 14 days before admission or during admission. If a positive SARS-CoV-2 test is detected in the period 14 days before to 48 hours after

¹ <https://covid19.ssi.dk/overvagningsdata/download-fil-med-overvaagningdata>



the time of admission, the covid-19-related admission starts at the time of admission. Patients who test positive for SARS-CoV 2 during hospitalization more than 48 hours after the time of hospitalization are also registered with a covid 19-related hospitalization, but here the hospitalization date 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 development of serious illness that may lead to hospitalization).

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

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

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

Data for covid-19 related treatment of new admissions to intensive care are provided from the Danish Intensive Covid Database and the Danish Intensive Database. Data are collected by manually collecting patients' medical records. For data collection method, see [http://www.cric.nu/danish-icu covid-19-report /](http://www.cric.nu/danish-icu-covid-19-report/). [Data for intensive care units by variant type](#) are based on another database, where, for example, intensive care units also include patients who have received intensive care but have not been admitted to an intensive care unit. Therefore, there may be differences in the number of entries between the tables.

SARS-CoV-2 variants

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

Data for the most recent week are drawn on the preparation date. Data is continuously updated backwards as results from sequencing are added. Data are calculated on a sample date, and therefore there may be some samples from the most recent week for which no response has yet been received. However, it is considered that the data is sufficient to assess trends and signals. It is also assessed that backward changes in data are small and insignificant in relation to the conclusions in the report.



Covid-19-related admissions to psychiatry

From 11 January 2022 onwards, there will be a separate inventory of covid-related admissions to psychiatry on SSI's dashboard. Data on the dashboard is based on the regions' daily reports of snapshot data up to the day before. SSI continuously prepares a qualification of the covid-related admissions in inpatients with a covid diagnosis, inpatients with a respiratory diagnosis or obs covid diagnosis.

Mortality

Calculation of deaths with and by 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 last 30 days are counted. The definition of covid-19-related death is 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 individuals who have tested positive but who have died of other causes. Based on 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 "of" covid-19, and how many have died "of" 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 variables are independent. Younger (0-39-year-olds) have e.g. ca. 20% probability of testing positive during the period and at the same time very low probability of death, while the elderly (65 + - year olds) only has approx. 2.5% probability of testing positive and at the same time significantly higher risk of death. It is therefore necessary to perform the analysis for each age group separately. In the analysis, we have for practical reasons chosen to use the age groups 0-19, 20-39, 40-59, 60-69, 70-79 and 80+ -year-olds. The exact choice of age groups will not significantly affect the final result, but if the method is used without age division, completely useless answers will appear.

The age-specific 30-day incidence of positive covid-19 test is taken from SSI's weekly inventories. The weekly age-specific information on the number of deaths among test-positive individuals is retrieved at the same place. The total weekly age-specific deaths are taken from SSI's contribution to the EuroMOMO monitoring and apply EuroMOMO's normal method of correction for delays in the registration of deaths.

Further details about the methods and interpretations used can be requested from SSI and PandemiX Research Center at Roskilde University Center.

Validation of Covid-19 died, cf. the Cause of Death Register

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

- Covid-19 infection without indication of location



- Covid-19, severe acute respiratory syndrome
- Coronavirus infection without specification
- Covid-19, virus identified
- Covid-19, virus not identified

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

Breakthrough infections

Number of people is the number of people on the first Monday of a given week. A person who changes age group or vaccine status during the week will not appear in more places.

A person contributes with risk time as long as the person is alive, resident in Denmark (cpr register) and up to 30 days after the first positive PCR test.

Vaccination status

Reservations and explanation of data on the number of confirmed cases, hospitalizations and deaths in relation to vaccination status in the individual age groups:

Data for confirmed cases, hospitalized or dead by vaccination status are calculated for the individual age groups on vaccination status. In order to be able to calculate incidence on a weekly basis, vaccination status is maintained at the beginning of the week in question (Monday in the calculated week), and a person who is vaccinated during the week does not change vaccination status until Monday of the following week.

Completely vaccinated is defined as a completed primary vaccination program, ie. people who have been revaccinated will be included in the group of fully vaccinated. Expected full effect of vaccination is defined as 14 days after completion of vaccination for all vaccine types.

Please note that in the section Breakthrough infections, two figures are shown, where the value of the y-axes is very different.

Special staff groups

The variable 'Number of confirmed cases' is time-independent of 'Number of cases without vaccination' and is tested positive. ~~Number of cases with expected full effect of vaccination, because persons who~~ ~~Number of cases with expected full effect of vaccination, because persons who~~ positive, while vaccination adherence is the current vaccination status at the time of enumeration. The number of people with status as 'Number of cases without vaccination' and 'Number of cases with expected full effect of vaccination', respectively, may therefore change retroactively, which is why there may be deviations for the individual weeks if statements from different weeks are compared. Comparison of weekly development may therefore be subject to uncertainty, and the figures for 'Number of confirmed cases' and 'Number of cases with expected full effect of vaccination' are not an expression of breakthrough infections.



Nursing home

Full effect after primary vaccination course is calculated from 14 days after the last vaccination in the primary vaccination course and until the day before the date of revaccination. Full effect after revaccination is calculated from 14 days after the date of revaccination.

School outbreaks

~~Every Tuesday, an overview~~ of possible outbreaks in schools is published on SSI's website . Here you will also find documentation and definitions.

Sewage

Trend analyzes:

SARS-CoV-2 virus concentrations in wastewater are measured as the number of RNA copies per liter of wastewater. The trend analyzes are carried out by giving the wastewater measurements from each treatment plant a weight, in relation to the number of residents in the catchment area, after which they are added together. The combined measurements are then presented in a graph showing the results in virus concentration over time.

Pr. 3.1.2022 a new PCR test has been taken into use. Therefore, the results from before and after 3.1.2022 can not be compared directly.

Other respiratory diseases

This report is based on people tested.

Data for the most recent week are extracted on the preparation date. Data is not updated backwards unless otherwise stated. Data for positive PCR tests are calculated on the sample date, and therefore there may be some samples from the most recent week for which no response has yet been received. However, it is considered that the data is sufficient to assess trends and signals. It is also assessed that backward changes in data are small and insignificant in relation to the conclusions in the report.

The positive percentage is calculated so that a person who tests positive is only included the first time he or she tests positive per week, while everyone tested in the denominator can only count once per week.

Definition of incidents in the report

In this report, the following method has been used to calculate the incidents per week:

Number of confirmed cases in that week (Monday through Sunday) per 100,000 inhabitants.

The background population is the entire population of Denmark.



Links

Inventories of covid-19 in Denmark can be seen here:
[Covid-19 monitoring figures - updated every Tuesday](#)

[COVIDmeter](#): Citizens' voluntary reporting of symptoms of covid-19. Updated every Thursday at 2 p.m.