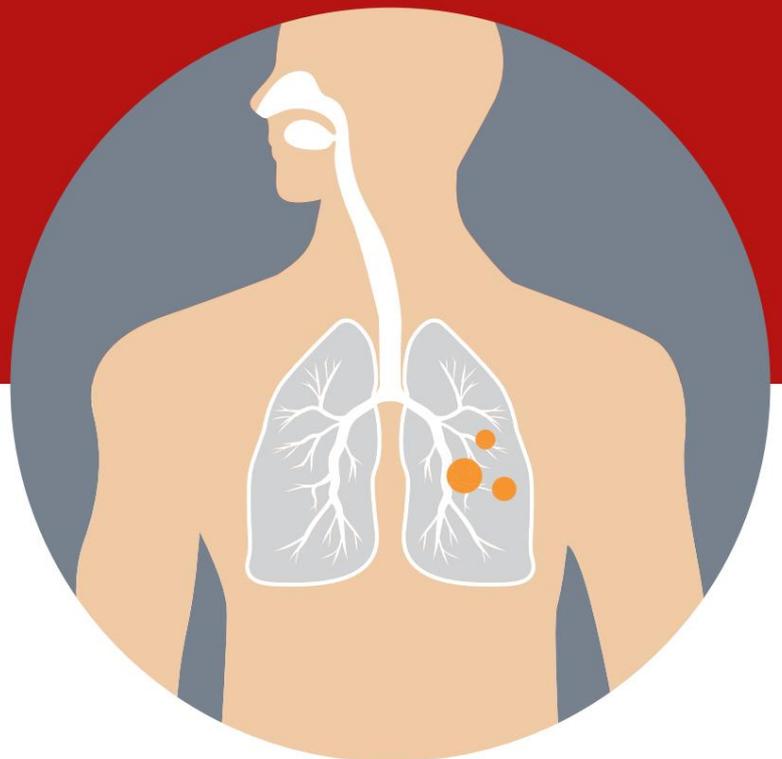


Weekly trends: covid-19 and other respiratory infections

Week 8 | 2022





The epidemiological development of covid-19 and other respiratory infections in Denmark from week 6 to week 7

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Overall assessment

On a national level and in all five regions, case numbers have decreased by 24% between week 6 and 7. In parallel, test activity has decreased, probably because of the winter holiday. In spite of a lower test activity, the rate of test positive remains stable or slightly declining across the country, with the highest percentage registered in the Central Denmark Region with 44%. In wastewater samples, a decrease in the concentration of SARS-CoV-2 was recorded on a national level, but with an increase in the Capital Region.

Among children, case numbers continue to decrease and this trend now also encompasses younger adults. However the opposite - an increase in case numbers - is observed among older adults of 60 years and above. The number of new hospital admissions has increased slightly by 3% from week 6 to 7, with a comparable small increment in the number of new admissions to intensive care units. The number of hospital admissions among individuals of 70 years and above is still increasing, but there is decline in all other age groups. The proportion of patients with a positive SARS-CoV-2 test hospitalized because of a COVID-19 diagnosis has decreased to 50% in week 5. However, the proportion of hospitalized patients in week 5 because of COVID-19 remains larger (68%) among individuals of 60 years and above.

The number of COVID-related deaths has stabilized in week 7 compared to week 6. The proportion of COVID-related deaths which is estimated to be caused by COVID has declined to 60% in week 7. However, there are signs of excess mortality among individuals of 85 years and older in the last few weeks. SSI will follow this development closely.

In general, case numbers are expected to decrease further across the country in the next weeks, albeit week 7 probably was influenced by the winter holiday and lower test activity. Still, a risk of increase in case numbers among the older population remains probable in the next weeks, which in turn may increase COVID-19 related hospitalizations.



Summary

- The number of new cases with covid-19 has decreased by 24% between week 6 to week 7, corresponding to the incidence in week 7 having decreased to 4,081 cases per 100,000 inhabitants. The positive percentage is stable (39.8% in week 6 and 40.1% in week 7). There is a decrease in both the number of PCR tests (25%) and especially in antigen tests (46%).
- The incidence is still highest in Region North Jutland (5,717 per 100,000 inhabitants), but declining incidences are seen in all five regions from week 6 to week 7. In parallel, there has been a decrease in test activity in week 7. Overall, there are signs that that the infection is stable or stagnant, but there is an uncertainty about the results of the week due to winter holidays in week 7.

The positive percentage is generally stable in all five regions, which is seen in parallel with a decrease in the number of tests. In week 7, the highest positive percentage is seen in the Central Jutland Region (44.3%).

- At the national level, the incidence is highest among the 25-29-year-olds (4,715 per 100,000 inhabitants) and the 30-39-year-olds (4,704 per 100,000 inhabitants). An increase is seen among the older age groups (+ 60-year-olds), while a decrease is seen in the remaining age groups.
- The number of new admissions related to covid-19 has increased to 2,849 in week 7, and the increase is seen among the + 60-year-olds. The largest increase is seen in the age group 60-69-year-olds (30%), while the 70-79-year-olds remain the age group that constitutes the largest group among the newly admitted, followed by the 80-89-year-olds and the 60-69-year-olds.
- The proportion of admissions among persons admitted due to a covid-19 diagnosis (as opposed to *with* a covid-19 diagnosis) has fallen to 50% in week 5 compared with 52% in week 4. For the 0-59-year-olds, the proportion admitted with a covid-19 diagnosis has dropped to 40% in week 5, while for the 60 + -year-olds it is 68% in week 5.
- 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 67% in week 6 and 72% in week 7. Link: [Danish Intensive Database](#).
- The number of covid-19-related deaths is stable from week 6 to week 7.
- The excess mortality has been at a normal level from week 2 up to and including week 5. From week 6 onwards, there are signs of a certain excess mortality, especially among the elderly aged 85+, but the mortality rates in recent weeks must be taken with reservation due to post-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 47 through week 7, and in week 7 it is estimated that 44% of the covid-19-related deaths occurred for a reason other than covid-19. This means that there is still an increase in the proportion of covid-19-related deaths that occurs for a reason other than covid 19 continues to increase during the period and is considered to continue to reflect the widespread societal infection.
- As in recent weeks, this week's report includes inventories 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. And from week 3, deaths that have occurred for a reason other than covid-19 account for about 50% among covid-19-related deaths where there is a validated cause of death. However, it must be taken into account that there is a large degree of ongoing post-registration of death certificates and that there is still a lack of validation corresponding to 35% in week 7.
- Infection among nursing home residents continues to rise and has risen from 2,055 cases in week 6 to 2,302 in week 7. There were 99 deaths among residents with covid 19 in nursing homes in week 7 compared with 88 in week 6.
- The infection among employees in the health, social and education sectors is declining from week 6 to week 7.
- The share of BA.2 out of all cases continues to increase, and amounts to approx. 96% in week 7 compared to approx. 92% in week 6. A stable proportion of BA.2 cases are BA.2 with the mutation H78Y. BA.1 and BA.1.1 now make up only approx. 4%. It should be noted that the latest figures of variants for week 7 should be interpreted with reservations, as the number of sequences is still low.
- In week 7, a flattening of SARS-CoV-2 concentration in the wastewater is seen at national level. In the five regions, a flattening or decrease in SARS-CoV-2 concentration is also seen in the wastewater, phrased in the Capital Region, where a small increase has been observed.
- In weeks 6 and 7, there is an increase in the number of infected and the number of new patients with influenza, especially in the Copenhagen area. This is Influenza A (H3N2). However, the incidence of influenza is still at a very low level, which is still below what is normally seen at this time of the influenza season. This is similarly seen in most other European countries.



Overall assessment

The infection has decreased corresponding to 24% between week 6 and week 7, and the decrease has occurred in all regions. Similarly, there has been a decrease in test activity between week 6 and week 7, which presumably must be seen in relation to the winter holidays in week 7. But despite the decline in test activity, the positive percentage is stable or slightly declining across the country and in week 7 is highest in the Central Jutland Region with 44%. A stagnation has been registered in the concentration of SARS-CoV-2 in the wastewater at national level, however, with an increase in the Capital Region.

The infection continues to fall among children, and now also among the younger adults, but is rising among the older age groups over 60 years. There is a small increase in the number of new admissions of 3% in week 7, and a stabilization to a slight increase in the number of inpatients in intensive care as well as in the proportion of inpatients receiving covid-specific treatment. The number of admissions continues to increase among the elderly corresponding to the age groups + 70-year-olds, and there is a decrease among the other age groups in week 7. The proportion of patients admitted due to a covid-19 diagnosis has decreased to 50% for week 5, however, the proportion, hospitalized due to covid-19 diagnosis, continued higher among the older age groups over 60 years corresponding to 68% in week 5.

The number of covid-related deaths is at a stable level in week 7 compared to week 6, where the latest probability calculations indicate that the proportion of deaths estimated to be caused by covid-19 has dropped to 60% in week 7. However there are signs of an excess mortality rate among the elderly over the age of 85 in recent weeks, which SSI is following closely.

The infection is expected to continue to fall further across the country over the coming weeks, despite the fact that the development in week 7 is to a certain extent assessed to be affected by the winter holidays and the declining test activity. However, there is still a risk that the infection may increase further among the older age groups in the coming weeks and thereby 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, 2022

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

Covid-19	2022						Trend week 2-7
	2	3	4	5	6	7	
Incidence pr. 100,000 inhabitants 2,937		4,572	5,105	5,061	5,395	4,081	
Incidence pr. 100,000 with expected full effect of primary vaccination course * (+ 12-year-olds)	4,090	6,753	7,254	7,180	7,395	4,864	
Incidence pr. 100,000 with expected full effect of revaccination * (+ 12-year-olds)	1707	3095	3892	4,861	5,726	5,057	
Incidence pr. 100,000 unvaccinated * (+ 12-year-olds)	4,071	5,939	6,037	5,490	5,596	3,807	
R (newly infected)	1.2	1.2	1.0	1.0	0.9	0.9	
Number of tests performed (PCR)	1,335,845	1,539,900	1,305,989	1,088,298	1,023,574	766,439	
Confirmed cases (PCR)	172,105	267,948	299,212	296,630	316,181	239,265	
Proportion of confirmed cases with expected full effect of primary vaccination course (%)	41.6	38.2	32.0	27.1	21.6	16.4	
Proportion of confirmed cases with expected full effect of revaccination (%)	24.5	31.7	38.6	47.6	57.3	66.5	
Positive Percentage (PCR)	18.2	24.8	29.7	35.4	39.8	40.1	
Number of tests performed (antigen)	1,597,518	1,682,121	1,249,869	819,679	641,090	343,289	
Confirmed cases (antigen, PCR confirmed) **	38,740	56,788	54,202	47,100	48,378	-	
Positive percentage (antigen)	2.4	3.4	4.3	5.8	7.5	-	

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, 2022

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

Covid-19	2022						Trend week 2-7
	2	3	4	5	6	7	
New hospital admissions	1,302	1,583	1,959	2,391	2,774	2,869 in most common	
Proportion of new hospital admissions with expected full effect of primary vaccination course (%)	30.0	28.7	24.8	19.2	18.0	13.9	
Proportion of new hospital admissions with expected full effect of revaccination (%)	31.3	34.3	39.9	48.2	53.6	60.1	
New hospital admissions per. 100,000 unvaccinated * (+ 12-years old)	6.6	6.7	7.3	8.9	9.2	8.2	
New hospital admissions per. 100,000 with expected full effect of primary vaccination course * (+ 12-year-olds)	2.3	3.2	4.2	4.8	6.2	5.7	
New hospital admissions per. 100,000 with expected full effect of revaccination * (+ 12-years old)	1.7	2.0	2.6	3.7	4.7	5.4	
Number admitted on Monday morning	802	894	1,008 in most common	1,267 in most common	1,465	1,717 in most common	
Number admitted to intensive care on Monday morning	5.2	4.3	3.2	3.1	2.5	4.4	
Number of dead **	106	111	137	145	209	210	

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, 2022

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

Covid-19	2022						Trend week 2-7
	2	3	4	5	6	7	
Number of people who have started vaccination	4,838,159	4,843,548	4,846,009	4,845,707	4,845,488	4,844,834	
Vaccination started (%)	82.4	82.5	82.5	82.5	82.5	82.4	
Number of persons with completed primary vaccination course	4,709,594	4,731,860	4,746,568	4,752,087	4,756,351	4,757,961	
Primary course of vaccination (%)	80.2	80.6	80.8	80.9	80.9	81.0	
Number of people who have received the first revaccination	3,382,254	3,509,732	3,569,310	3,596,374	3,614,337	3,624,211	
Revaccination (%)	57.6	59.8	60.8	61.2	61.5	61.7	



Other respiratory diseases

Data is updated backwards.

Table 4. Influenza: Key numbers and trends, weekly, 2022

Table 4. Influenza: key figures and trends *, broken down by week, 2022

Flu	2022 week						Trend week 2-7
	2	3	4	5	6	7	
Incidence pr. 100,000 inhabitants	0.6	0.6	0.6	0.6	1.1	1.6	
Number of people tested	7,531	7,454	6,828	7,050	6,619	6,378	
Positive percentage	0.5	0.5	0.5	0.5	1.0	1.5	
Number of new admissions	3	10	6	6	10	21	

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



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

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

Covid-19	Region	2022 week						Trend week 2-7
		2	3	4	5	6	7	
Incidence pr. 100,000 inhabitants	The capital	3492	5,005	4,829 4,070		3,795	2,889	
	Central Jutland	2815 4,376		5,078 6,054		6,567	4,879	
	North Jutland	2432	3,825	5,236 5,695		7,259	4,717 in most common	
	Zealand	2606 4,446		5,068 4,490		4,670	3,501	
	Southern Denmark	2626 4,484		4,541 in most common	5,494	6,076	4,581 in most common	
Positive percentage	The capital	22.5	28.6	31.1	34.7	36.4	37.1	
	Central Jutland	17.7	24.3	31.0	39.1	43.6	44.3	
	North Jutland	16.4	22.5	30.2	36.5	44.0	43.7	
	Zealand	16.6	23.8	28.0	31.8	35.3	35.4	
	Southern Denmark	14.7	22.1	27.9	34.0	39.7	39.8	
R (newly infected)	The capital	1.2	1.1	0.9	0.9	0.8	0.8	
	Central Jutland	1.3	1.2	0.9	1.1	0.9	0.9	
	North Jutland	1.2	1.2	1.1	1.1	1.0	0.9	
	Zealand	1.1	1.1	0.9	0.9	0.8	0.7	
	Southern Denmark	1.2	1.1	1.0	1.0	0.9	0.9	
New hospital admissions	The capital	566	718	882	896	934	911	
	Central Jutland	208	228	295	375	546	538	
	North Jutland	102	114	117	195	274	349	
	Zealand	247	290	350	477	454	472	
	Southern Denmark	164	219	295	420	554	558	
	Unknown region	1 5	1 4	2 0	2 8	1 2	2 1	



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

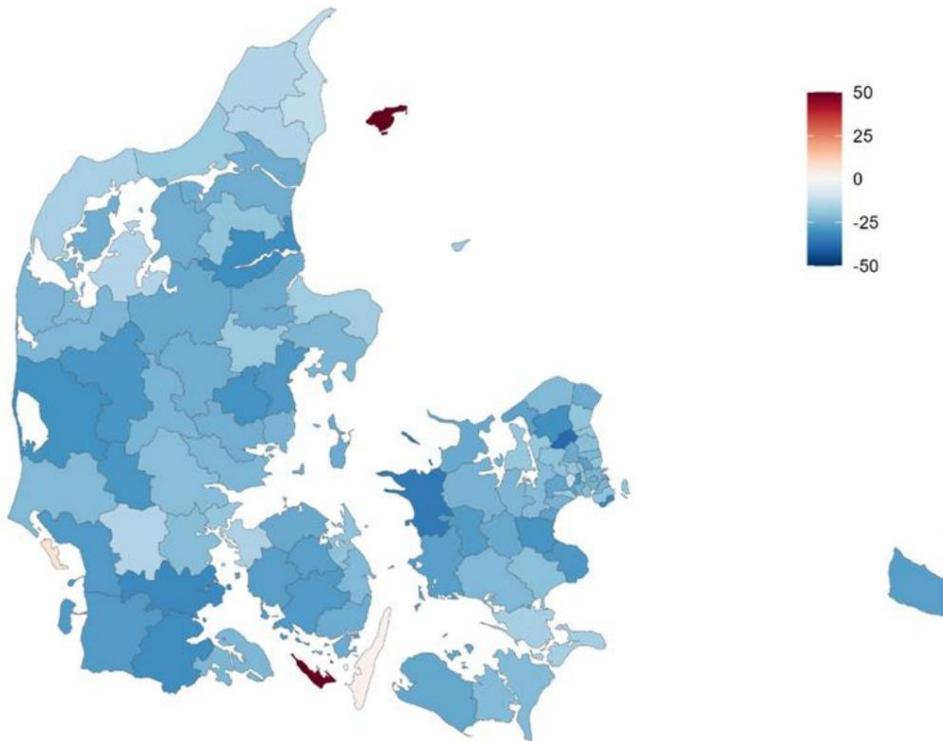




Figure 2. COVID-19: Weekly change in positive percentage, percentage
Figure 2. Covid-19: Percent change in weekly positive percentage

Procentvis ændring ugentlig positivprocent over 7 dage

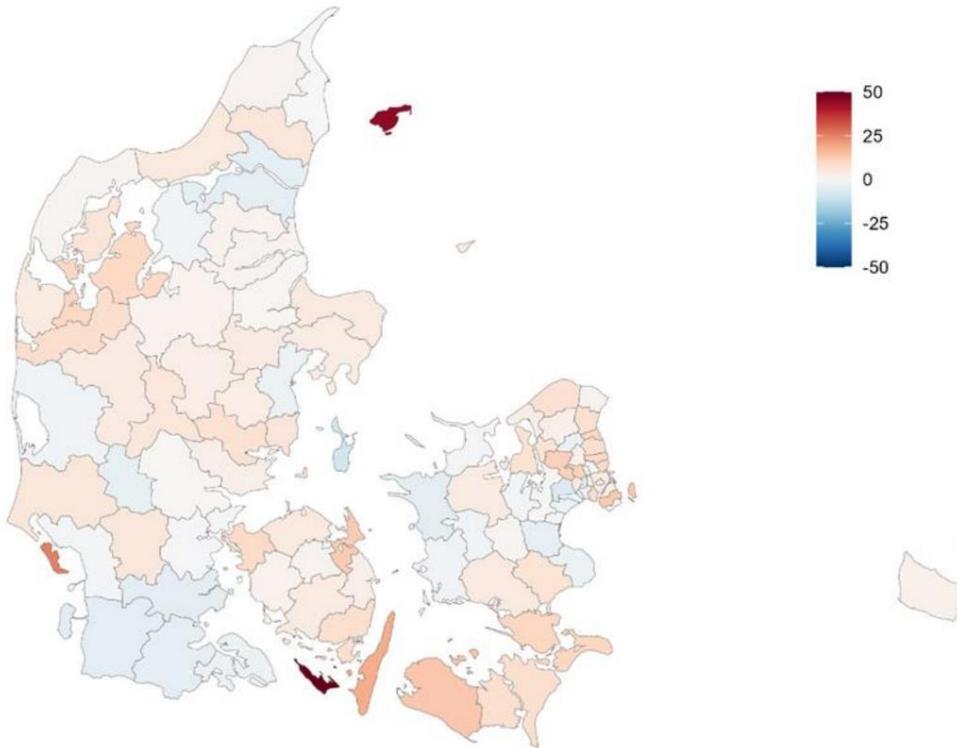
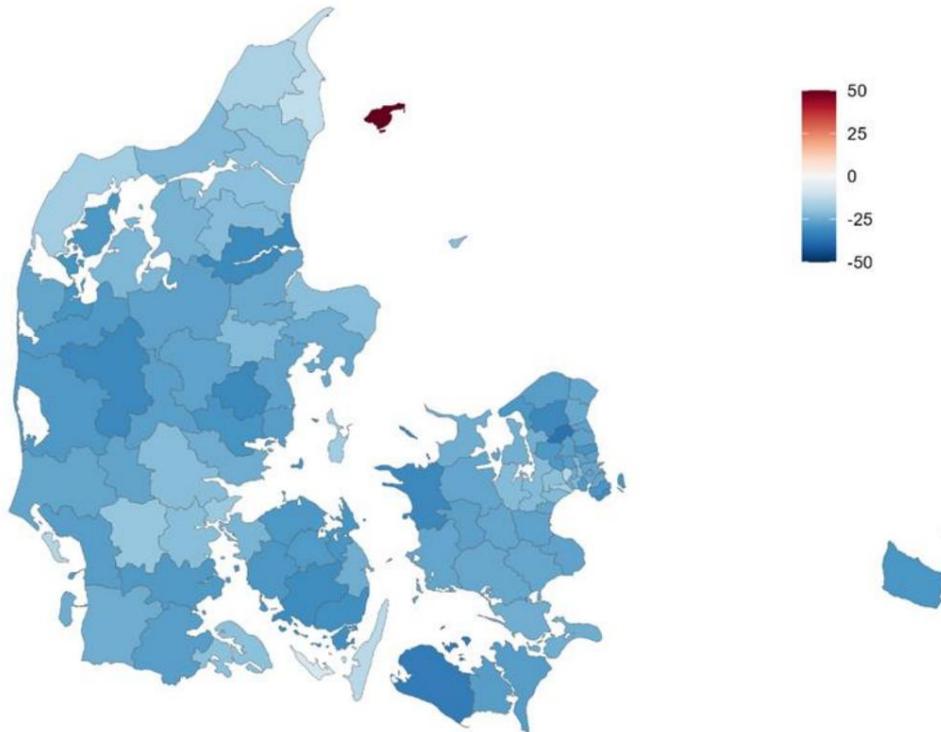




Figure 3. COVID-19: Weekly change in number of tests, percentage
Figure 3. Covid-19: Percentage change in weekly number of tests

Procentvis ændring i ugentlig antal test over 7 dage





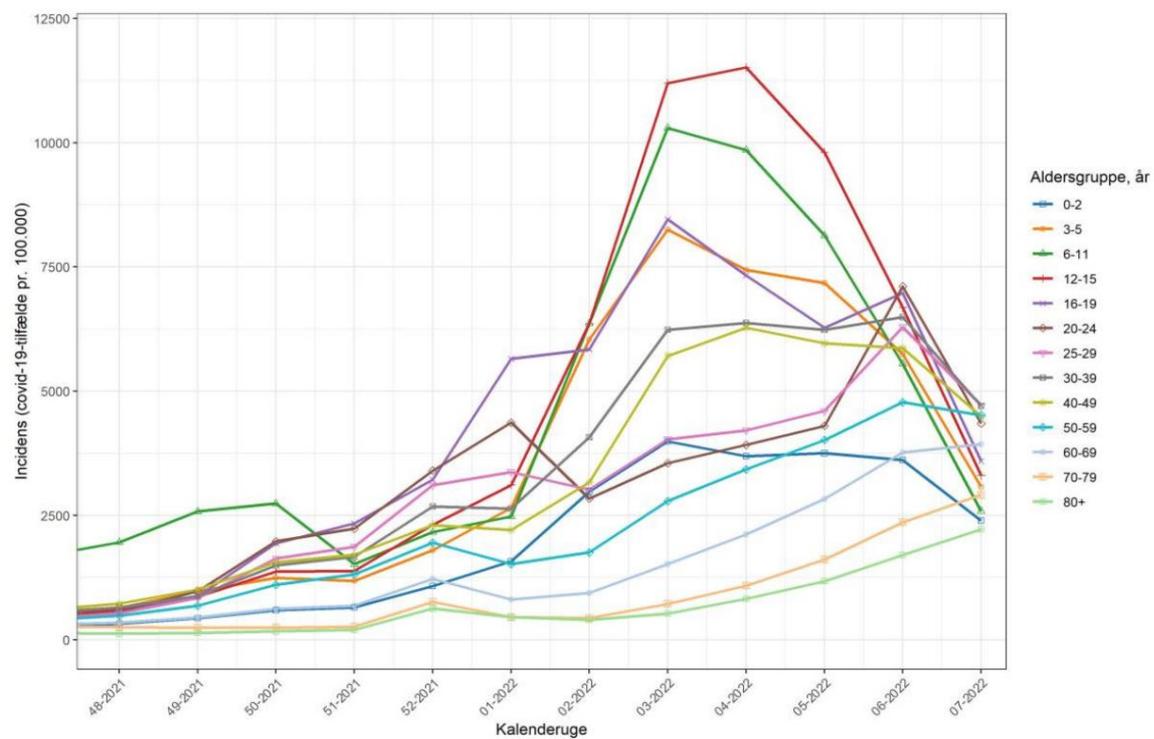
Age incidence

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

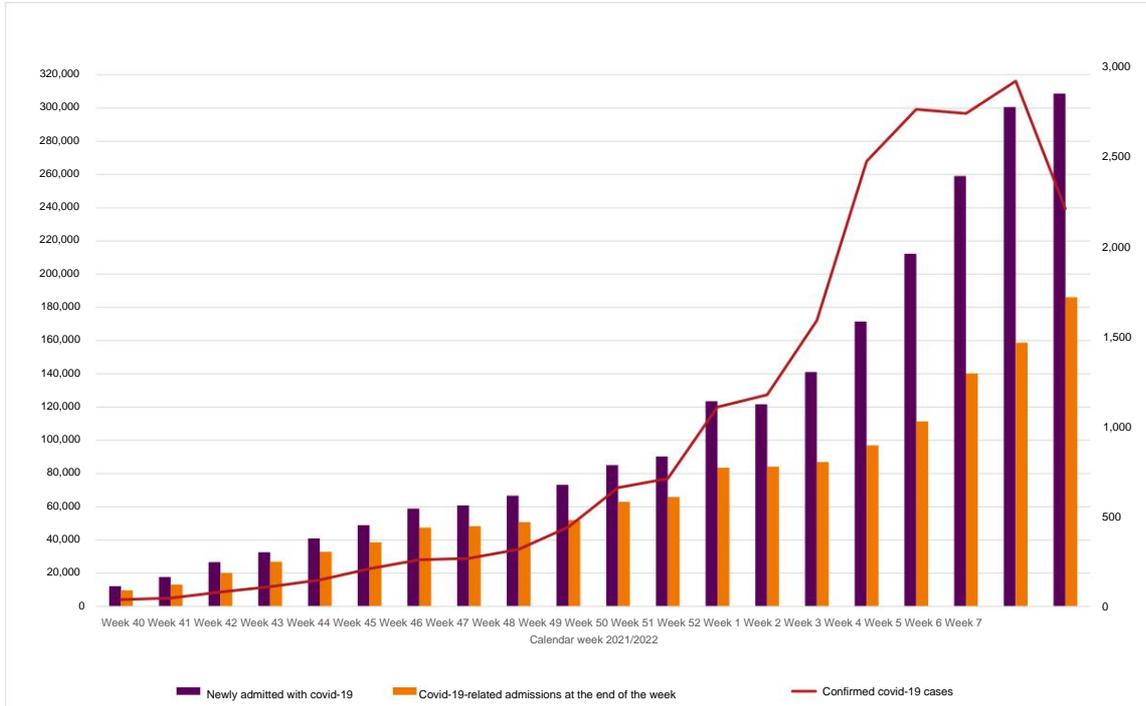
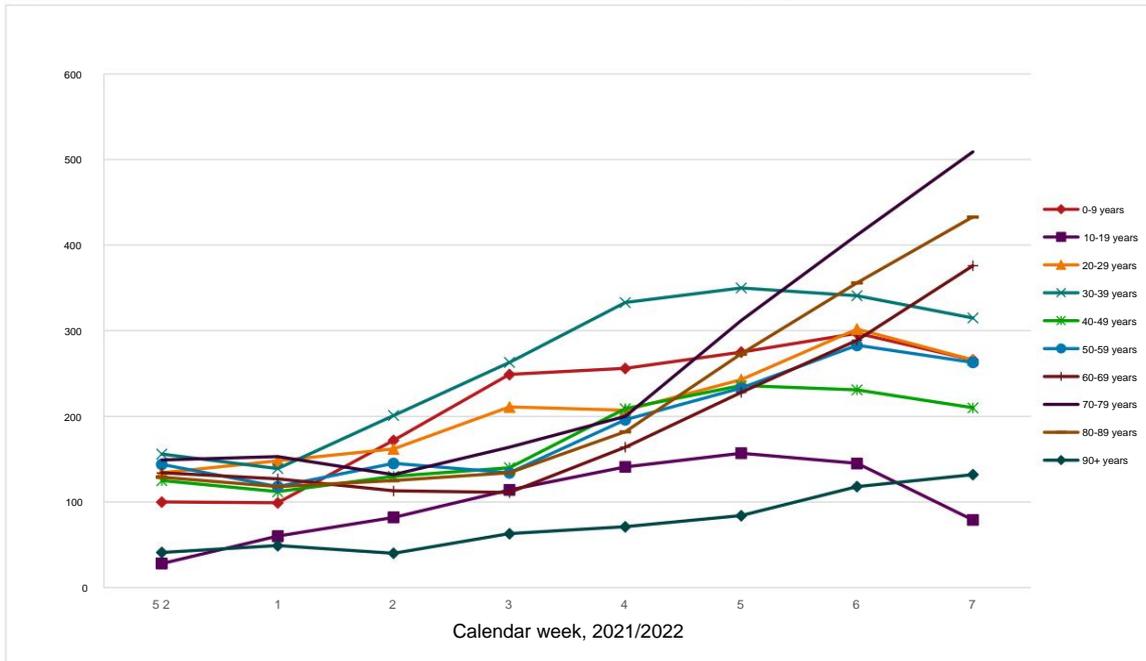




Figure 6. COVID-19: Weekly numbers of PCR-positive hospital admissions by age group
Figure 6. Covid-19: Weekly number of new admissions by age group





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 February 6th 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 6 February 2022

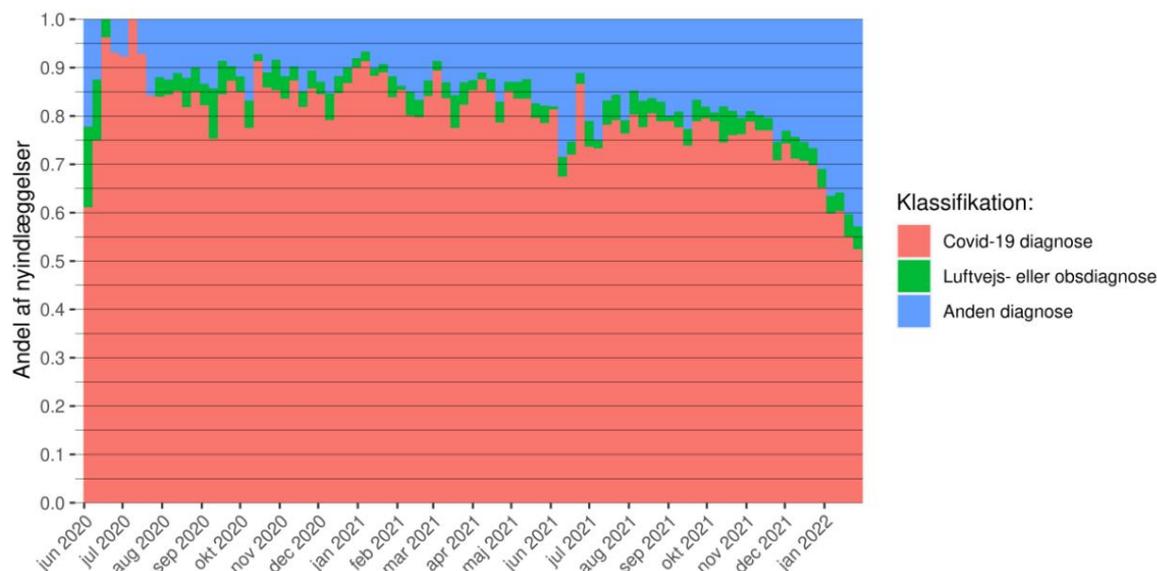


Table 6. COVID-19: Proportion of PCR-positive hospital admissions with a COVID-19 diagnosis, with a respiratory or tentative COVID-19 diagnosis, or with other diagnosis, June 1st 2020 to February 6th 2022

Table 6. 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 February 6, 2022

Diagnosis	2021/2022 week					Trend	
	52	1	2	3	4		
Covid-19 diagnose	65%	60%	60%	55%	52%	50%	
Respiratory or observational diagnosis	4%	4%	4%	5%	5%	5%	
Second diagnosis	31%	37%	36%	40%	43%	45%	



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 February 6th 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 February 6, 2022

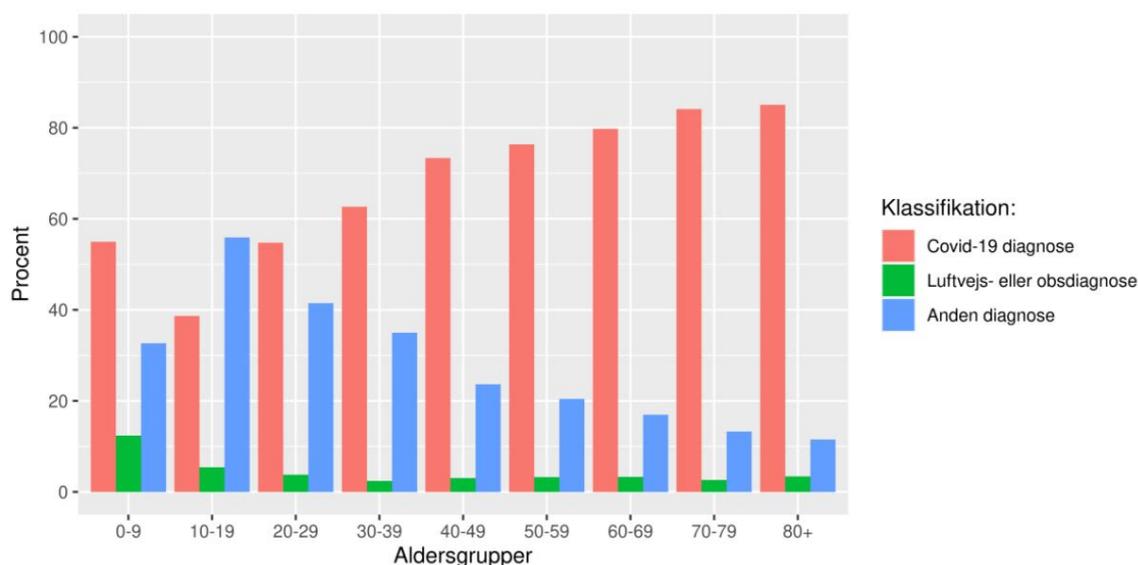


Table 7. COVID-19: Proportion of PCR-positive people admitted to hospital with a COVID 19 diagnosis, a respiratory or tentative COVID-19 diagnosis, or another diagnosis, who had a psychiatric admission during their hospitalization

Table 7. 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 hospitalization

Diagnosis	Covid-19-related admissions to psychiatric wards					Trend	
	2021/2022 week						
	52	1	2	3	4	5	
Covid-19 diagnosis	1.4%	1.5%	2.5%	2.6%	0.9%	0.7%	
Respiratory or observational diagnosis	11.6%	2.1%	5.5%	0.0%	1.1%	0.0%	
Second diagnosis	14.1%	12.6%	11.4%	8.7%	8.2%	8.0%	



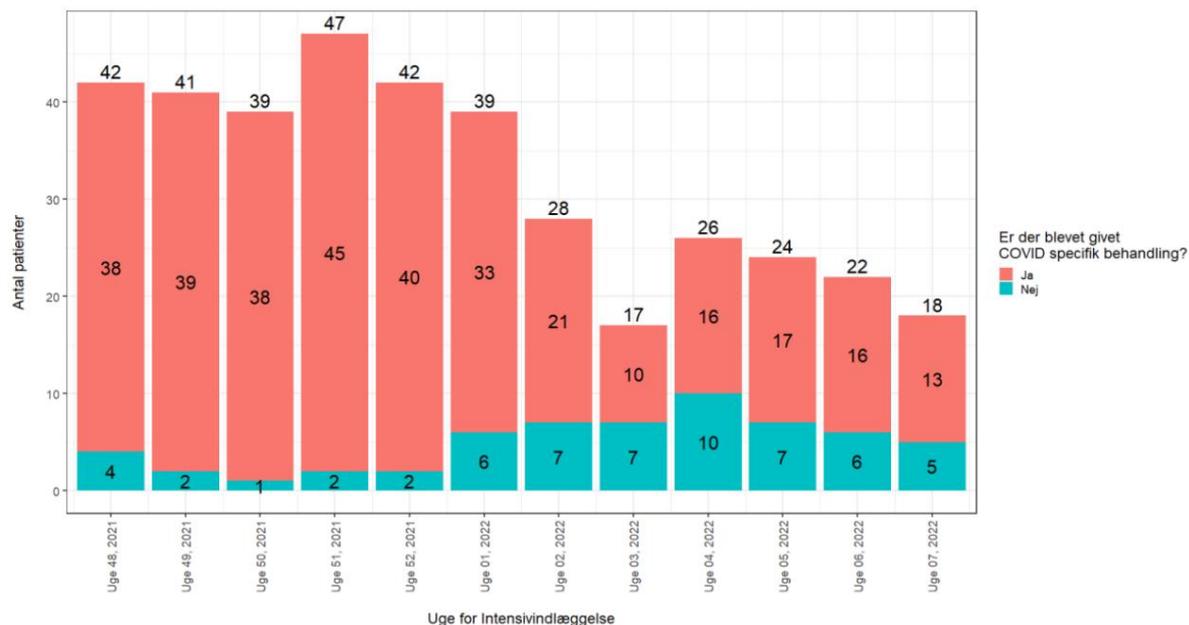
Table 8. COVID-19: Proportion of PCR-positive hospital admissions with a COVID-19 diagnosis (red), with a respiratory or tentative Covid-19 diagnosis (green), or with other diagnosis (blue), by age groups 0-59 and 60+ years old

Table 8. 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
	52	1	2	3	4	5	
0-59-year-olds							
Covid-19 diagnosis	56.2%	51.9%	54.3%	49.5%	44.5%	39.9%	
Respiratory or observational diagnosis	4.4%	3.9%	4.1%	5.7%	5.0%	5.4%	
Second diagnosis	39.4%	44.2%	41.6%	44.8%	50.4%	54.8%	
60+ year olds							
Covid-19 diagnosis	78.8%	72.4%	71.1%	70.0%	69.1%	67.8%	
Respiratory or observational diagnosis	2.6%	3.9%	4.0%	2.6%	3.7%	5.3%	
Second diagnosis	18.6%	23.7%	24.9%	27.4%	27.2%	26.9%	

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

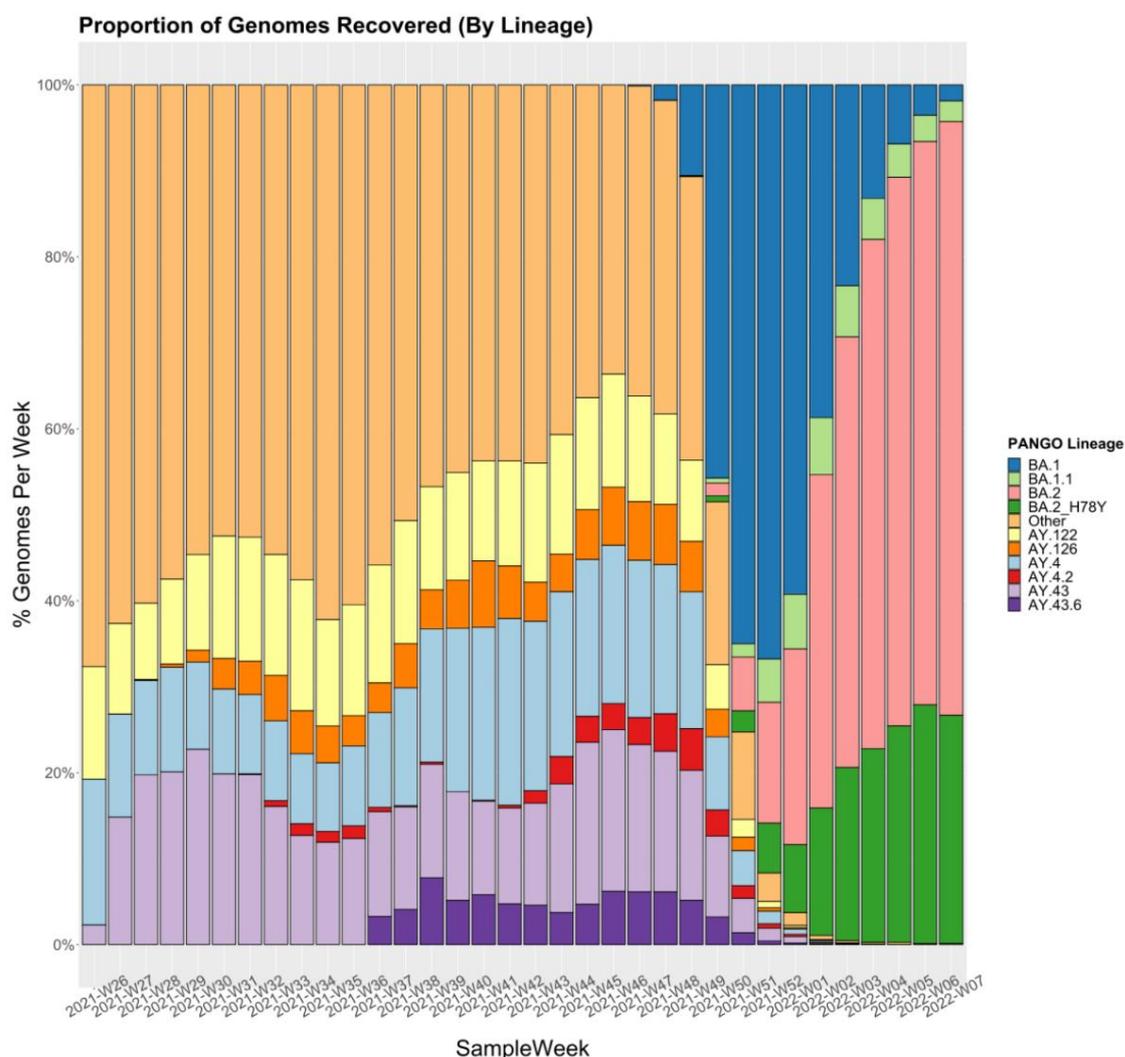




Table 9. COVID-19: The 20 most frequently observed sub (variants) based on whole-genome sequencing data for the last four weeks, 2022

Table 9. 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	4	5	6	7
BA.2	Omicron	7957 (59.21%)	7230 (63.81%)	8328 (65.51%)	3035 (69.04%)
BA.2_H78Y	Omicron	3030 (22.55%)	2853 (25.18%)	3530 (27.77%)	1167 (26.55%)
BA.1	Omicron	1773 (13.19%)	779 (6.87%)	451 (3.55%)	82 (1.87%)
BA.1.1	Omicron	644 (4.79%)	440 (3.88%)	388 (3.05%)	106 (2.41%)
None		20 (0.15%)	0	20 (0.18%)	10 (0.08%)
AY.4	Delta	(0.00%)	0	3 (0.03%)	2 (0.02%)
BA.3	Omicron	(0.00%)	0	2 (0.02%)	2 (0.02%)
AY.4.6	Delta	(0.00%)	0	0 (0.00%)	0 (0.00%)
AY.121	Delta	(0.00%)	3	1 (0.01%)	0 (0.00%)
AY.122	Delta	(0.02%)	1	0 (0.00%)	0 (0.00%)
AY.122.3	Delta	(0.01%)	0	0 (0.00%)	0 (0.00%)
AY.126	Delta	(0.00%)	1	1 (0.01%)	0 (0.00%)
AY.132	Delta	(0.01%)	1	0 (0.00%)	0 (0.00%)
AY.4.2	Delta	(0.01%)	0	0 (0.00%)	0 (0.00%)
AY.4.5	Delta	(0.00%)	4	1 (0.01%)	0 (0.00%)
AY.43	Delta	(0.03%)	1	0 (0.00%)	0 (0.00%)
AY.43.6	Delta	(0.01%)	1	0 (0.00%)	0 (0.00%)
AY.98.1	Delta	(0.01%)	3	0 (0.00%)	0 (0.00%)
B		(0.02%)	0	0 (0.00%)	0 (0.00%)
B.1.617.2	Delta	(0.00%)	0	1 (0.01%)	0 (0.00%)
Total		13439	11331	12712	4396

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

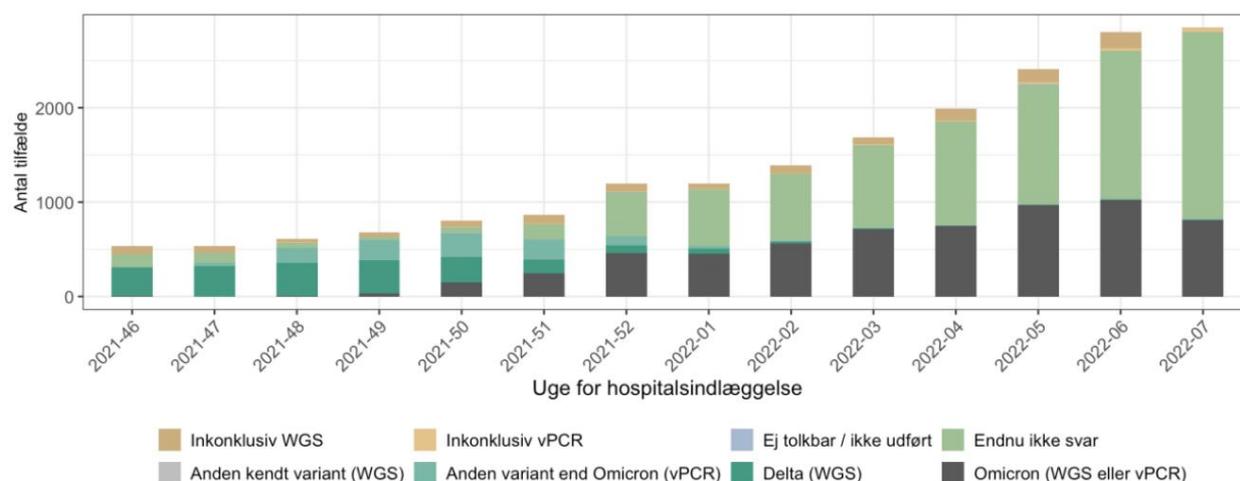


Table 10. COVID-19: Hospital admissions by week - proportion with variant analysis results

Table 10. Covid-19: New admissions per week - share with known variant response

Week of intensive hospitalization	2021/2022		
	Total number hospitalized	Admissions with known variant (share)	Admissions with omicron (proportion of known)
51	864	605 (70%)	248 (41%)
52	1198	640 (53%)	457 (71%)
1	1198	537 (45%)	450 (84%)
2	1393	594 (43%)	565 (95%)
3	1686	730 (43%)	713 (98%)
4	1987	760 (38%)	750 (99%)
5	2413	979 (41%)	968 (99%)
6	2800	1036 (37%)	1027 (99%)
7	2849	825 (29%)	810 (98%)

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

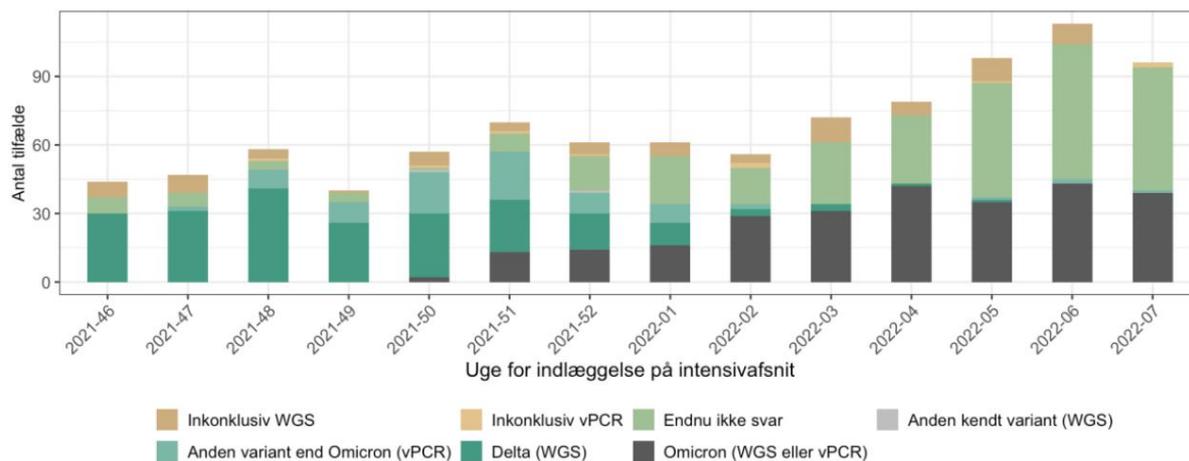


Table 11. COVID-19: Intensive care admissions by week - proportion with variant analysis results

Table 11. Covid-19: New admissions to intensive care per week - proportion with known variant response

2021/2022			
Week of intensive hospitalization	Total number of inpatients	Admissions with known variant (share)	Admissions with omicron (proportion of known)
51	70	57 (81%)	13 (23%)
52	61	40 (66%)	14 (35%)
1	61	34 (56%)	16 (47%)
2	56	34 (61%)	29 (85%)
3	72	34 (47%)	31 (91%)
4	79	43 (54%)	42 (98%)
5	98	37 (38%)	35 (95%)
6	113	45 (40%)	43 (96%)
7	96	40 (42%)	39 (98%)

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.

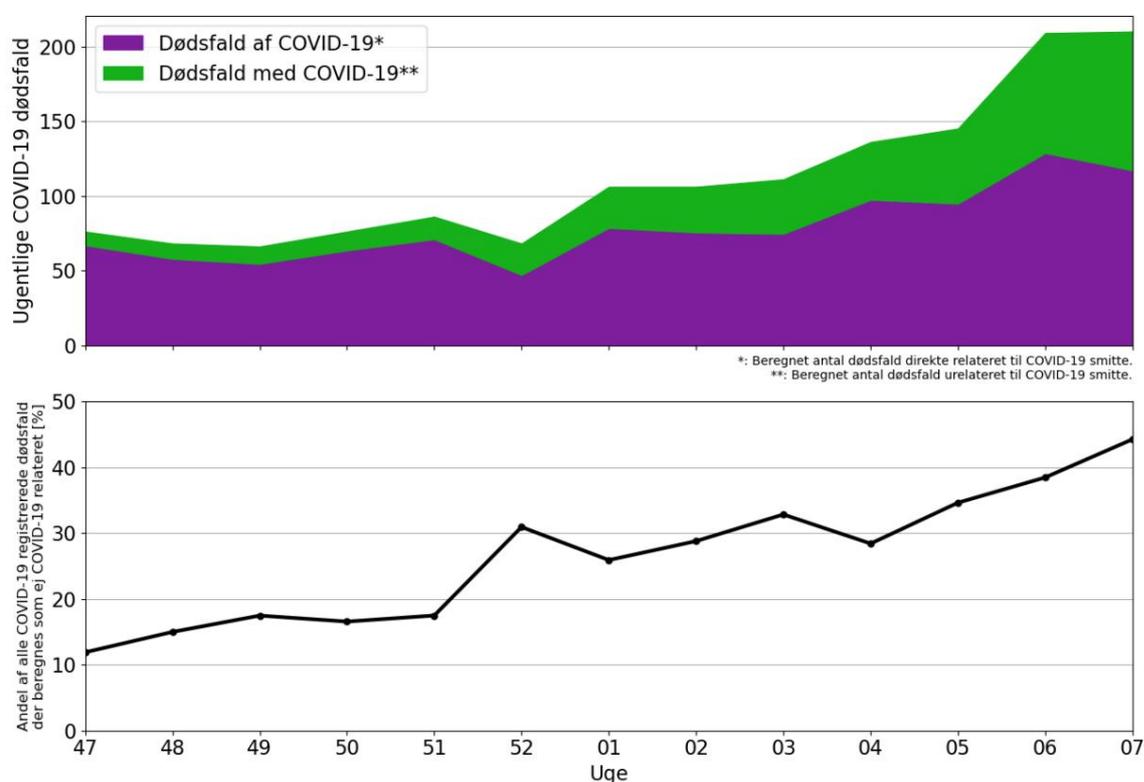


Mortality

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. See also [note on mortality](#). 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 12. 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 12. 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

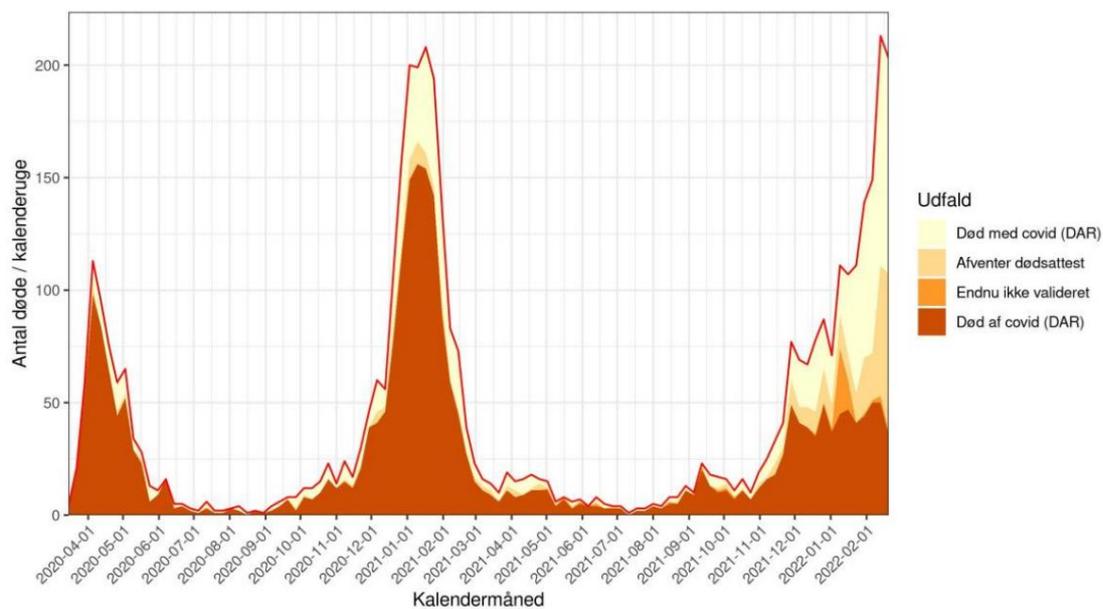
2021/2022, week	Deaths with positive covid-19 PCR test within 30 days, total	Deaths "of" covid-19	Deaths "with" covid-19	Percentage (%) of deaths "with" covid-19
47	76	67	9	11.9
48	68	58	10	15.0
49	66	54	12	17.5
50	76	63	13	16.6
51	86	71	15	17.5
52	68	47	21	30.9
1	106	79	27	25.9
2	106	75	31	28.8
3	106	75	36	32.8
4	111	97	39	28.4
5	136	95	50	34.6
6	145	129	80	38.4
7	209 210	117	93	44.2

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), 2020-2022

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

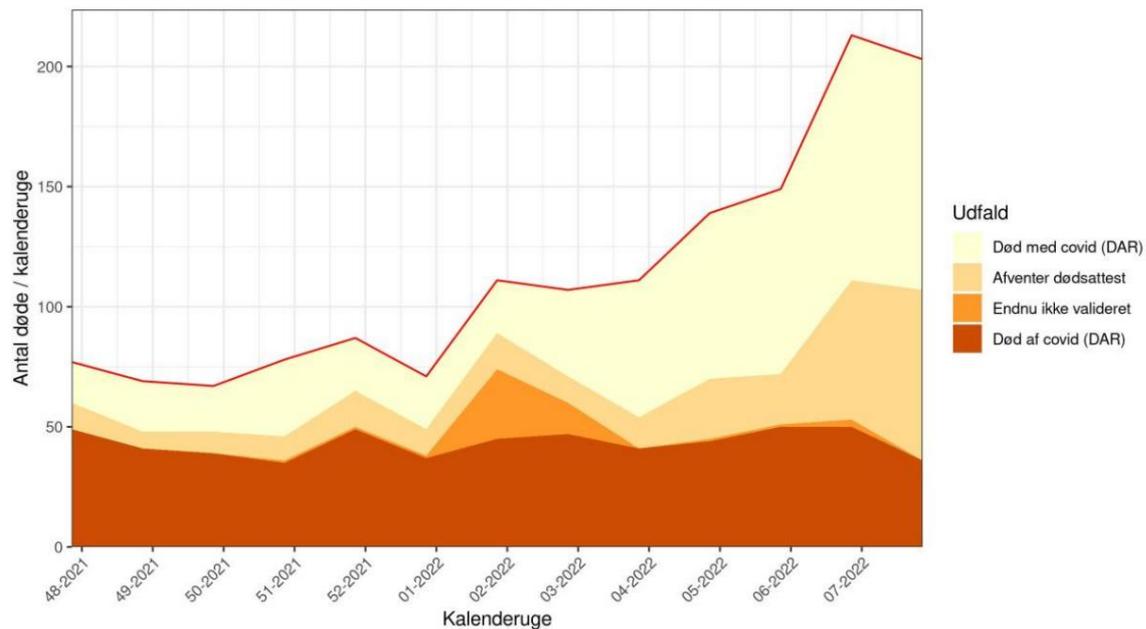


Note: Prepared on the basis of data from the Cause of Death Register (DAR) via the Danish Health and Medicines Authority



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), 2021/2022

Figure 15. Covid-19: Deaths by and including covid-19 based on death certificates, 2021/2022



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)

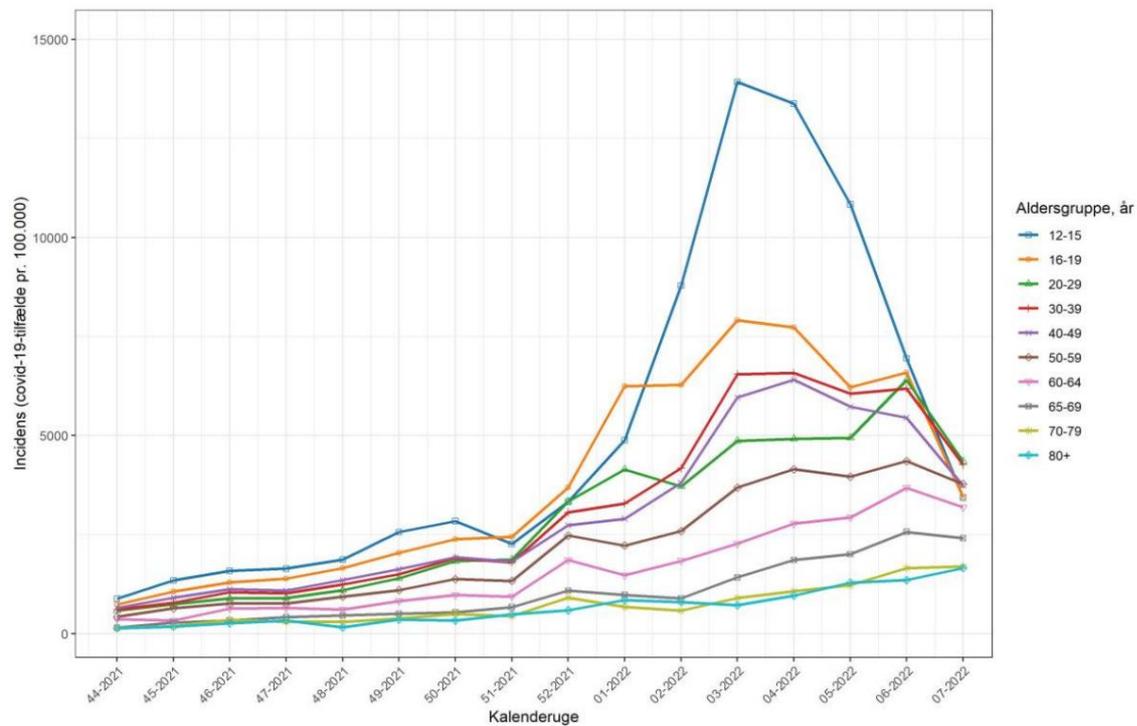
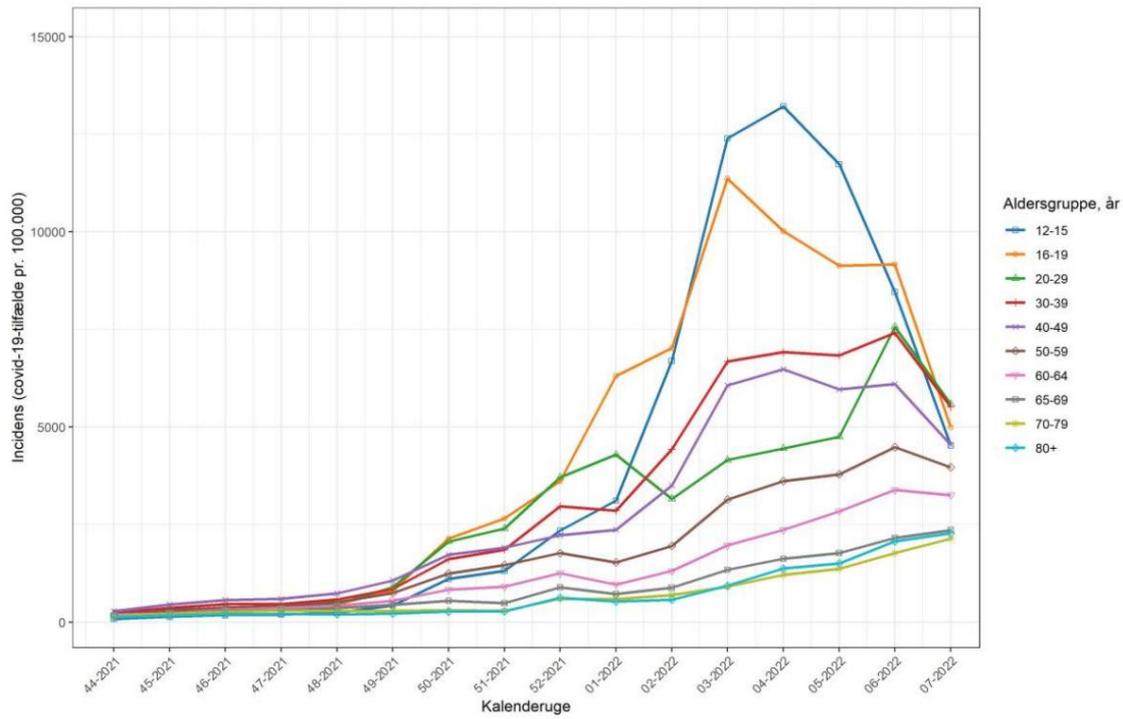




Figure 17. COVID-19: Incidence per 100,000 people with expected full effect of primary vaccination (12+ years old)

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





Hospital outbreaks

Table 13. COVID-19: Outbreaks at hospitals

Table 13. Covid-19: hospital outbreaks

Hospital outbreaks	2022 week					
	2	3	4	5	6	7
Number of outbreaks (out of 12 infection control units)	7	4	4	6	3	8
Of which no outbreak	0	2	2	3	0	2
Of which units with eruptions	7	2	2	3	3	6
Total number of outbreaks	31	5	3	9	8	16
Number of major outbreaks (> 20 infected, patients and / or staff)	2	3	0	0	0	0
Number of medium-sized outbreaks (11 to 20 infected, patients and / or staff)	9	0	0	2	3	3
Number of minor outbreaks (≤10 infected, patients and / or staff)	20	2	3	7	5	13

Nursing home

Table 14. COVID-19 at nursing homes

Table 14. Covid-19 in nursing homes

Covid-19, nursing home	2022 week				
	3	4	5	6	7
Confirmed cases among residents	810	1,205	1,847 (1st most common)	2,055	2,302
Deaths among confirmed cases	41	48	61	88	99
Confirmed cases among residents with expected full effect after primarily vaccination course	49	65	76	100	90
Confirmed cases among residents with expected full effect after revaccination	732	1,099	1,504	1,850 (1st most common)	2,141
Nursing homes with confirmed cases	259	339	433	518	548



Special staff groups

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

Table 15. COVID-19: Confirmed cases among employees in the social sector

Table 15. Covid-19: confirmed cases among employees in the social sector

Business	Covid-19, 2022								
	Quantity confirmed coincidence	Week 5 Incidence per 100,000	Number (share,%) of confirmed in the group case with expected full effect after revaccination	Quantity confirmed coincidence	Week 6 Incidence per 100,000 in the group	Percentage (%) of confirmed case with expected full effect after revaccination	Quantity confirmed coincidence	Week 7 Incidence per 100,000 in the group	Percentage (%) of confirmed case with expected full effect after revaccination
Day care, day centers, home help mv.	3,211	6,223	2,346 (73.1)	3,821	7,405	2,934 (76.8)	3,203	6,207	2,624 (81.9)
Nursing homes, etc.	8,659	7,015	6,664 (77.0)	10,248	8,302	8,154 (79.6)	8,462	6,855	7,025 (83.0)
Social in total	11,870 (total cases)	6,781	9,010 (75.9)	14,069	8,037	11,088 (78.8)	11,665 (total cases)	6,664	9,649 (82.7)

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

Table 16. Covid-19: confirmed cases among healthcare workers

Business	Covid-19, 2022								
	Quantity confirmed coincidence	Week 5 Incidence per 100,000	Number (share,%) of confirmed in the group cases with expected full effect after revaccination	Quantity confirmed coincidence	Week 6 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination	Quantity confirmed coincidence	Week 7 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination
Healthcare and others	3,663	6,787	2,917 (79.6)	3,962	7,341	3,311 (83.6)	3,224	5,973	2,754 (85.4)
Hospitals	8,194	6,598	7,084 (86.5)	9,078	7,310	7,899 (87.0)	7,342	5,912	6,560 (89.3)
Total health	11,857	6,655	10,001 (84.3)	13,040	7,319	11,210 (86.0)	10,566	5,931	9,314 (88.2)

Table 17. COVID-19: Confirmed cases among employees in day care institutions

Table 17. Covid-19: confirmed cases among employees of institutions

Business	Covid-19, 2022								
	5 Number Incidence confirmed cases in the group	Week 5 Incidence per 100,000 confirmed cases with expected full effect after revaccination	6 Number of confirmed cases in the group	Week 6 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination	7 Number of confirmed cases in the group	Week 7 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination	
Institutions *	8,473	10,237	6,774 (79.9)	7,419	8,963	6,096 (82.2)	4,397	5,312	3,708 (84.3)

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

Table 18. COVID-19: Confirmed cases among employees in the education sector

Table 18. Covid-19: confirmed cases among employees in the education sector

Business	Covid-19, 2022								
	5 Number Incidence confirmed cases in the group	Week 5 Incidence per 100,000 confirmed cases with expected full effect after revaccination	6 Number of confirmed cases in the group	Week 6 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination	7 Number of confirmed cases in the group	Week 7 Incidence per 100,000 in the group	Percentage (%) of confirmed cases with expected full effect after revaccination	
Primary school	4,888 (total cases)	8,332	7,818 (81.6)	8,299	7,214	6,924 (83.4)	5,303	4,610	4,543 (85.7)
Colleges and vocational schools	2,384	6,273	2,039 (85.5)	2,888 (total cases)	6,705	2,246 (88.1)	1,943	5,113	1,769 (91.0)



Confirmed cases among Danish travelers

Data are updated backwards in Table 18.

Table 19. COVID-19: Confirmed cases among Danish travelers arriving to Denmark

Table 19. Covid-19: confirmed cases among Danish travelers

Covid-19	2022 week					
	2	3	4	5	6	7
Number infected with travel activity	1,449	1,488 (in most common)	1,506	836	528	325
Proportion of infected with travel activity out of all new cases (%)	0.8	0.6	0.5	0.3	0.2	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 7, the most cases of infection are seen in Danish travelers from Germany (50), Austria (47) and Norway (47) and Sweden (46).



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

Covid-19 incidens og resultater fra spildevandsmålinger

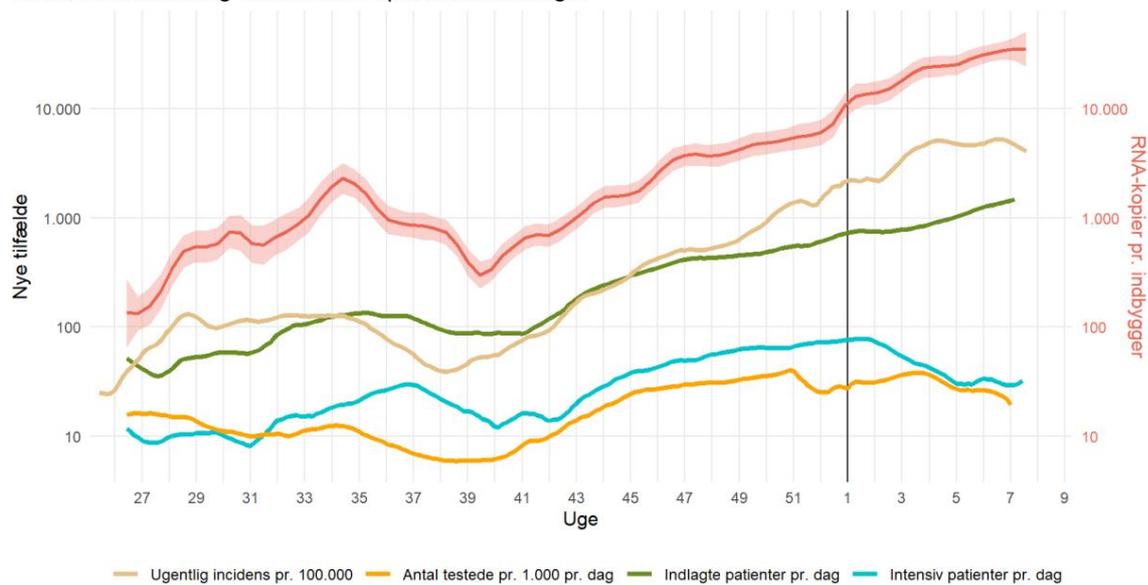
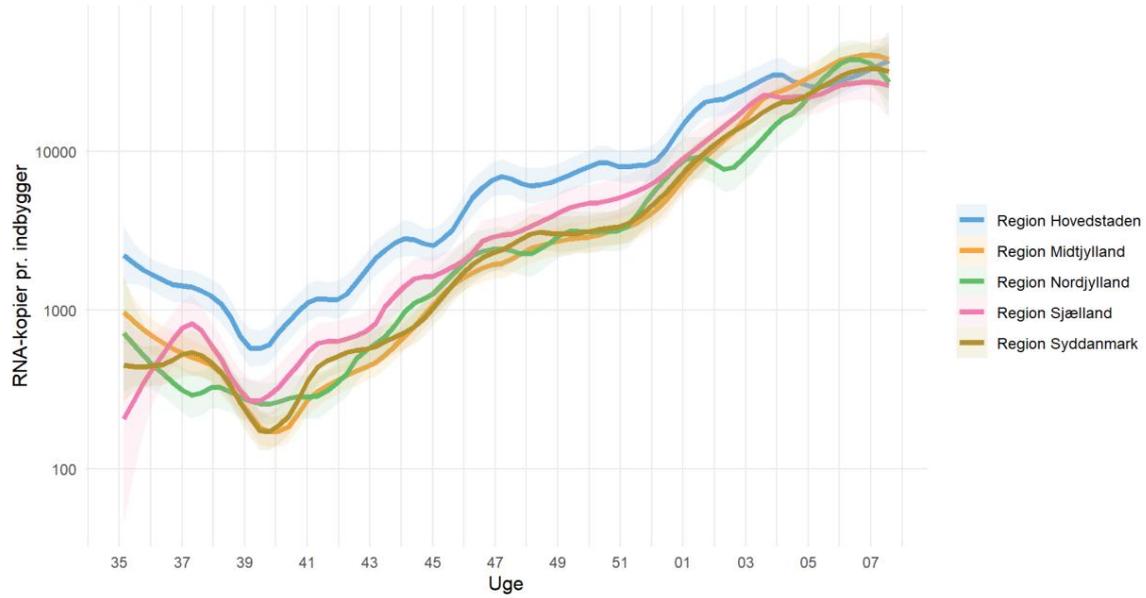




Figure 19. COVID-19. Results from waste-water surveillance by region, 2021/2022
Figure 19. Covid-19: Results from wastewater measurements by regions, 2021/2022

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, answers will emerge that cannot be used.

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 calculating 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



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 tests positive per week, while everyone tested in the denominator can only count once a 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.