NPHET COVID Update 7th January 2021

Current situation

	01-Oct	26-Oct (2 nd wave peak 14 day inc.)	01-Dec	09-Dec	16-Dec	23-Dec	31-Dec	02-Jan	06-Jan
14-day incidence	96.12	306.27	86.94	79.15	87.70	153.13	296.67	381.53	819.11
5-day average cases	407.2	920.0	261.0	283.6	338.0	783.8	1279.2	2007.2	5524.4
Total weekly cases	2608	7003	1894	1864	2312	4980	8707	11543	30996



	01-Oct	26-Oct (2 nd wave peak 14 day inc.)	01-Dec	09-Dec	16-Dec	23-Dec	31-Dec	02-Jan	06-Jan
No. Hospital (8.A.M)	122	344	224	215	198	239	491	581	921
No. in ICU (6.30 P.M)	22	40	30	32	32	27	39	50	77

	01-Oct	26-Oct (2nd wave peak 14 day inc.)	01-Dec	09-Dec	16-Dec	23-Dec	31-Dec	02-Jan	06-Jan
Positivity rate (7 day average)	3.0%	6.1%	2.7%	2.5%	2.7%	4.8%	10.9%	14.3%	21.9%

	September	October	November	December	January
Total Deaths	37	126	158	162	34
Deaths associated with Nursing Home outbreaks	12	51	51	54	10
Deaths associated with Hospital outbreaks	7	25	57	45	6

Cases, numbers in hospital and intensive care

Case numbers have risen very rapidly. The number of people in hospital and ICU, and the number of admissions per day, is also increasing very quickly. The number of deaths per day is increasing.



	16 Apr	24 Jun	29 Jul	26 Aug	30 Sept	21 Oct	16 Dec	23 Dec	31 Dec	6 Jan	Daily count 6 Jan
Cases confirmed per day	547	10	18	117	356	1160	330	713	1243	4429	7836
14-day incidence per 100,000 population	157	4.0	5.6	32	92	288	88	153	297	819	
Hospital in-patients	858	42	11	22	108	279	198	222	365	551	921
Hospital admissions per day	56	2	2	3	10	23	14	22	43	77	137
ICU confirmed cases	147	15	5	6	18	32	33	29	31	40	88
ICU admissions per day	8	< 1	< 1	< 1	2	3	1	2	5	8	18
Deaths confirmed per day	32	< 1	< 1	< 1	1	5	5	6	7	11	

Data are 7-day averages (the indicated day and the preceding 6 days, rounded to the nearest whole number) with the exception of 14 day cumulative incidence, which is the total number of cases in the preceding 14 days per 100,000 population. NPHET monitors 5-day moving average and 14-day cumulative incidence on a day-by-day basis, as indicators of rate of change of incidence and overall burden of infection. 7-day averages are used here to limit day-of-week effects. The historic incidence data may change due to denotification of cases.





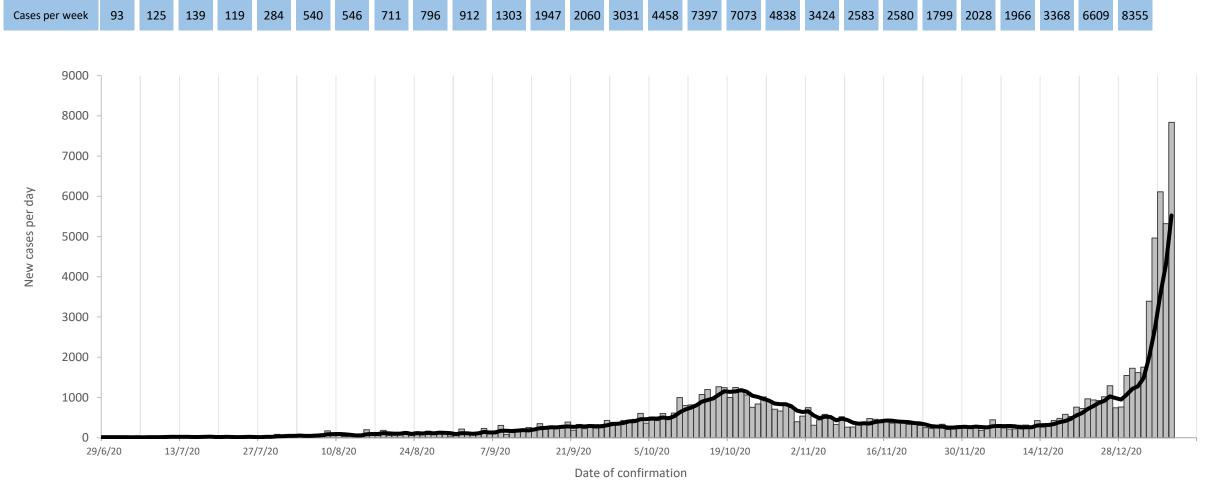


Cases, Incidence Rates & Testing

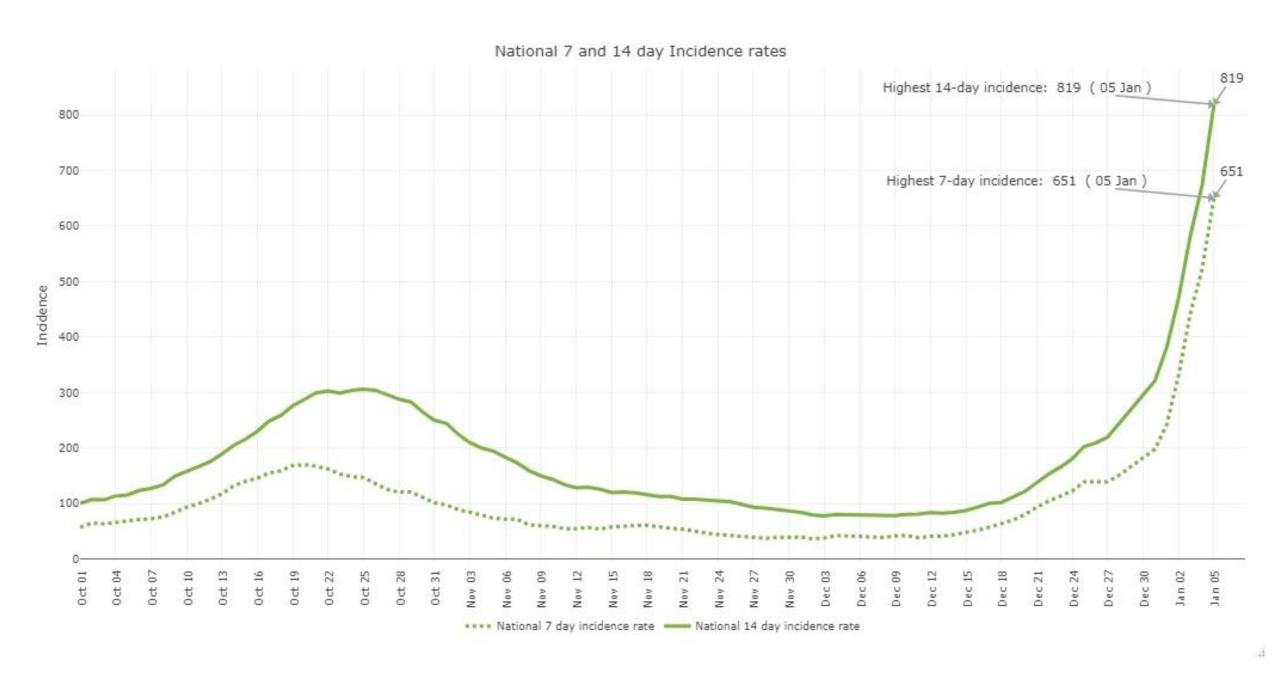
Confirmed cases each day

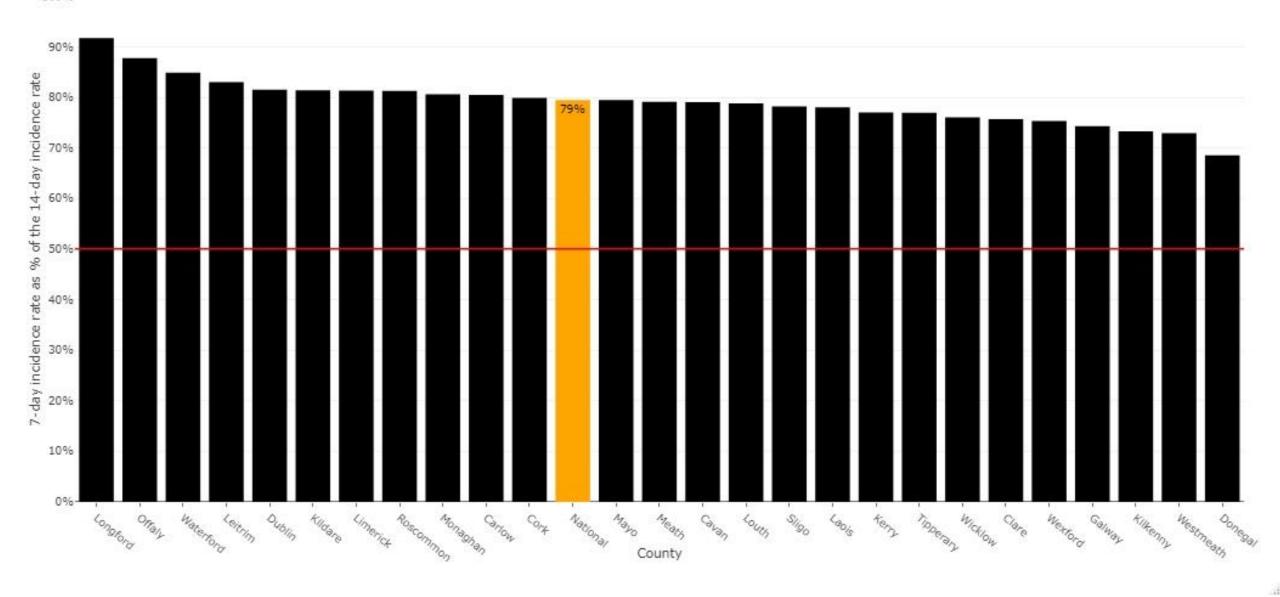
Daily and weekly count and 5-day rolling average. The 5-day average peaked at 1186 on 21 October, reached a low of 251 on 28 November, and is now **5524**





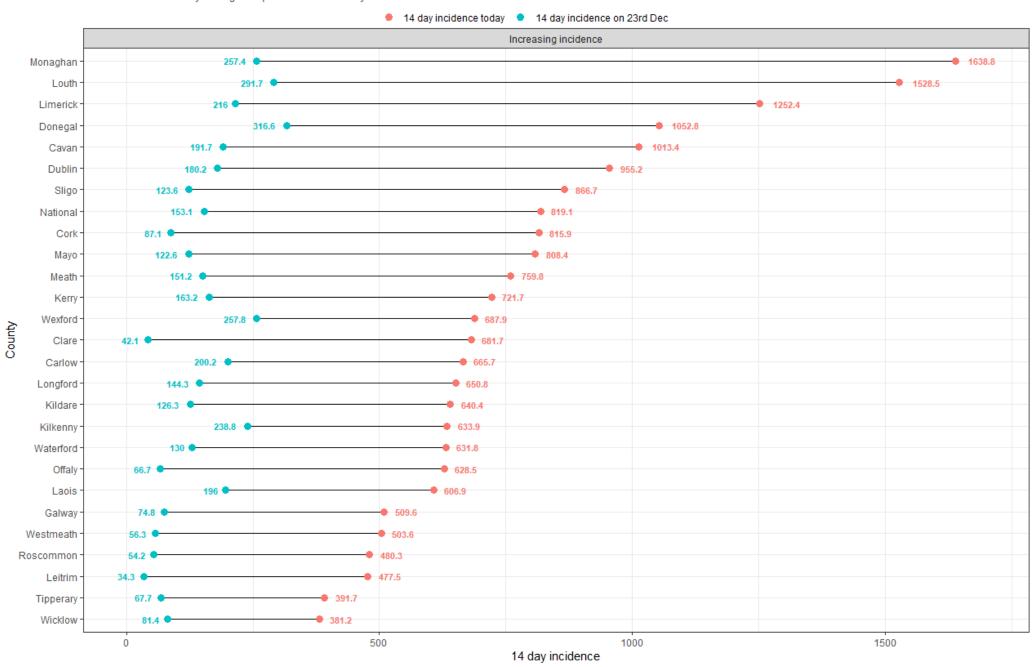






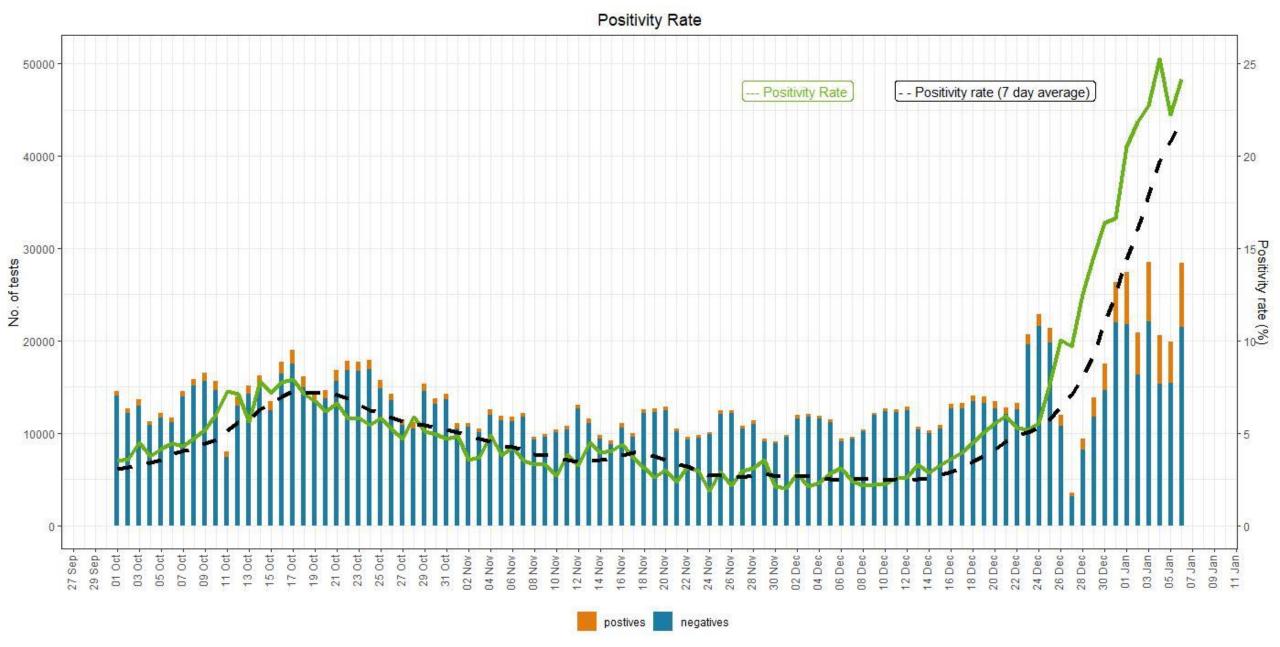
14 day incidence by county (today versus 23rd December)

All counties are currently seeing an rapid increase in 14 day incidence



Updated as of 6th Jan 21

Recent trend in positivity rate

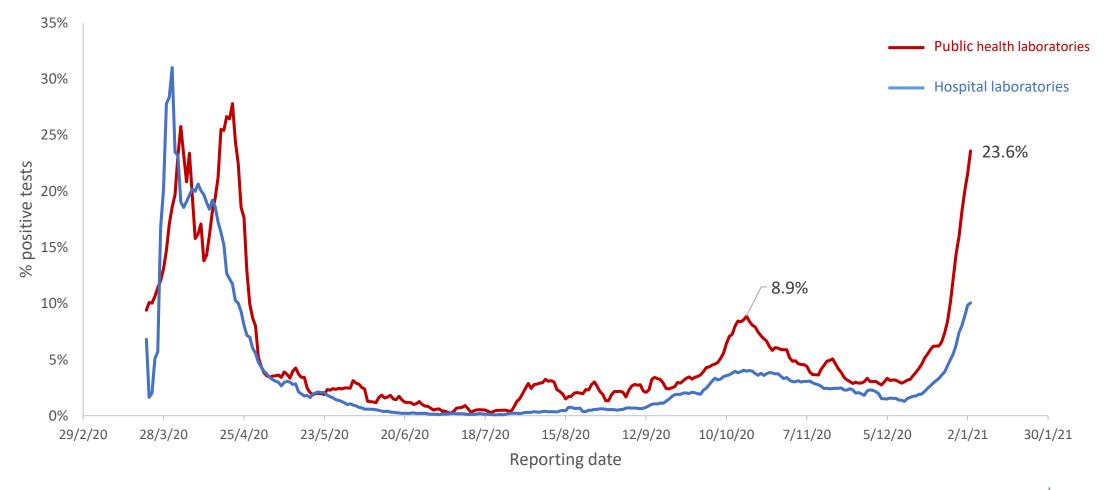


Test positivity: public health laboratories

The positivity rate is higher for tests conducted in public health laboratories (NVRL, associated laboratories and Cherry Orchard) compared with tests conducted in hospitals.

Positivity rates in public health laboratories have increased rapidly, and are now approaching the very high positivity rates seen with the constrained testing regimen of the first wave

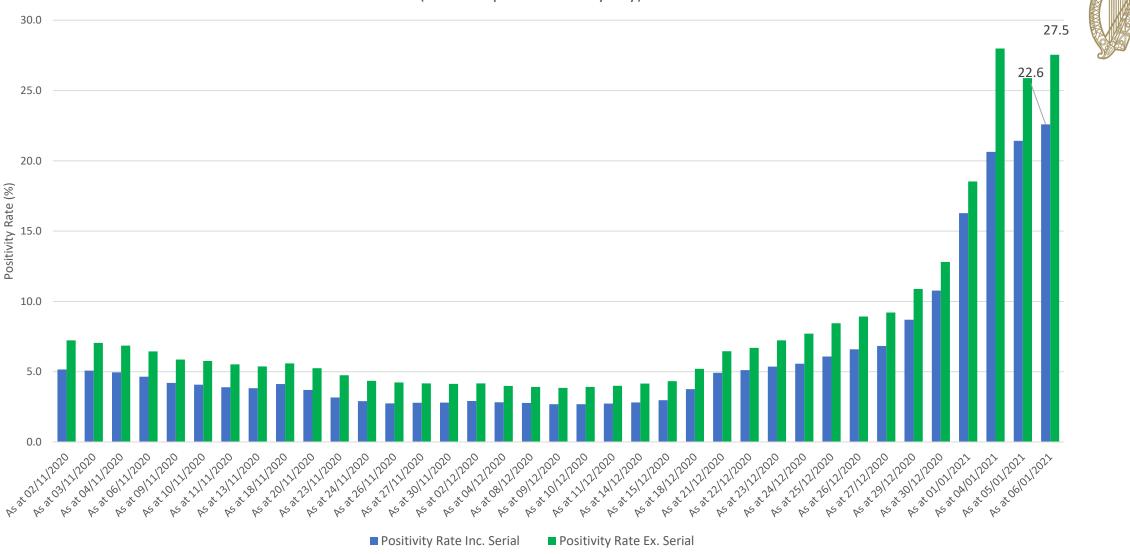






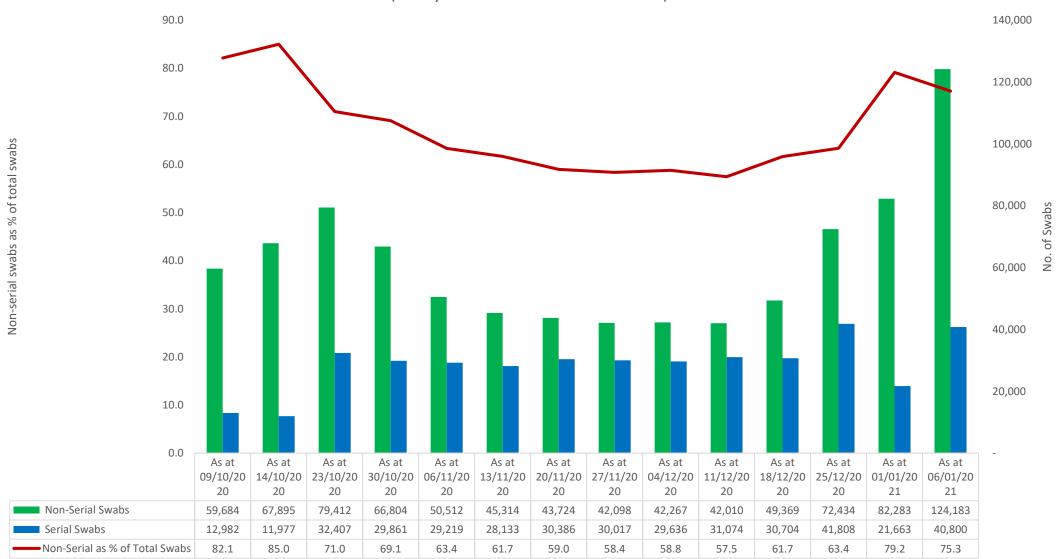


% Positivity Rate in Past 7 Days inc./ex. Serial Testing (data not provided every day)



No. of Non-Serial and Serial Swabs in Past 7 Days and Non-Serial as a % of Total Swabs (Friday of each week and latest date)

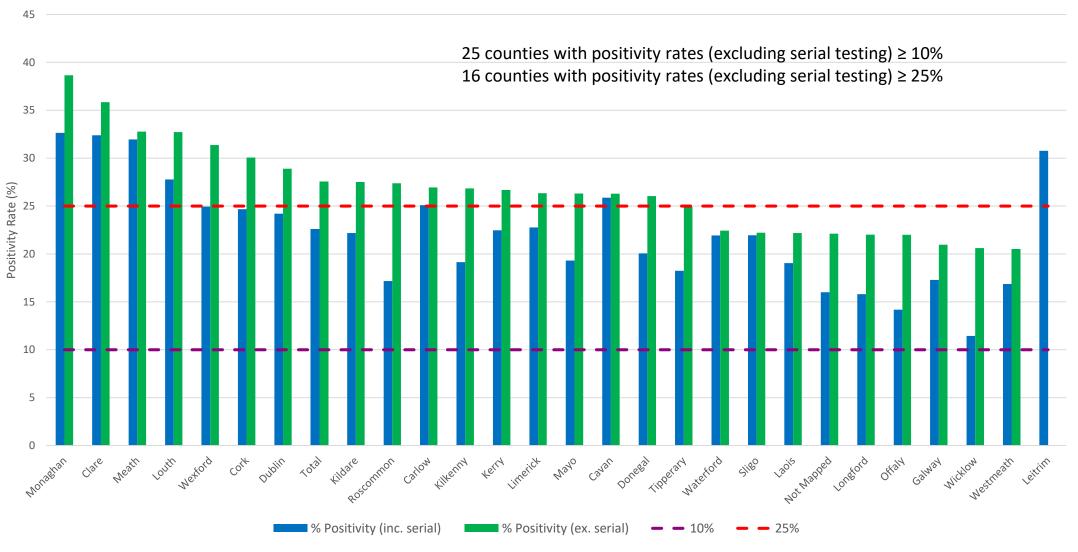




¹² An Roinn Sláinte | Department of Health

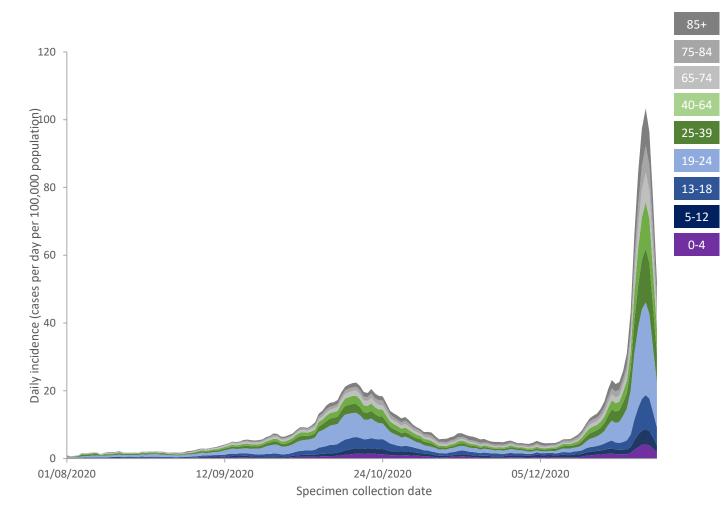
% Positivity Rate Past 7 Days (inc./ex. serial testing) by County as at 06/01/21 (data provided by HSE Contact and Tracing Team)





Incidence across different age groups (excluding HCW and LTRC)

When incidence started to rise again in July, cases increased first in younger age groups, especially in the 19-24 age group, with a delayed increase in incidence in older (65+) adults. The current wave is different, with a rapid rise in incidence in all age groups, and a very concerning level of disease in those aged 65 and older. A number of cases in those aged 65 and older will be linked in the coming days to outbreaks in LTRC.



Week	Age band										
	0-4	5-12	13-18	19-24	25-39	40-64	65-74	75-84	85+		
27	1.5	0.4	0.3	1.8	1.9	0.9	0.0	1.0	0.0		
28	0.9	1.1	1.1	10.9	2.0	1.1	1.9	1.0	3.0		
29	1.2	0.4	0.8	3.0	3.3	1.9	2.4	1.5	3.0		
30	1.8	0.5	1.6	3.6	4.3	0.9	1.9	0.0	1.5		
31	4.8	2.6	7.3	11.2	8.6	4.6	2.1	2.5	1.5		
32	4.5	3.8	6.7	19.9	16.7	10.9	4.8	2.5	3.0		
33	6.6	10.4	12.9	28.7	20.5	12.5	8.6	2.5	5.9		
34	6.6	6.9	16.7	34.4	15.3	10.5	5.6	5.1	1.5		
35	6.0	9.5	13.2	36.2	17.9	10.7	4.8	8.7	5.9		
36	13.3	13.7	17.8	48.6	22.6	13.9	11.0	12.2	14.8		
37	17.5	17.5	29.9	64.3	28.3	24.5	22.5	8.7	7.4		
38	21.4	26.2	44.1	90.3	44.3	34.8	32.9	19.8	14.8		
39	12.4	22.8	42.8	148.2	50.1	42.0	33.2	31.0	17.8		
40	29.9	28.6	63.2	167.3	67.8	57.7	34.3	26.0	19.2		
41	44.0	47.4	134.8	322.2	116.6	91.6	62.1	51.9	53.3		
42	78.1	90.9	196.7	430.8	155.1	142.7	91.8	67.7	57.7		
43	82.7	93.5	175.5	304.9	122.7	121.6	84.6	82.9	69.6		
44	54.0	67.1	93.9	152.8	74.4	76.5	54.3	54.5	45.9		
45	34.4	39.7	58.1	83.9	58.0	46.1	42.8	44.3	41.4		
46	41.9	37.2	65.9	89.7	45.5	45.2	32.7	43.3	57.7		
47	22.0	34.1	59.5	79.7	34.8	33.2	28.6	39.2	54.8		
48	23.2	31.5	45.5	66.7	33.9	29.8	22.2	36.1	31.1		
49	28.4	36.6	37.7	40.5	33.2	30.0	25.4	30.0	34.0		
50	21.4	39.7	44.1	57.4	40.1	35.2	22.5	31.6	19.2		
51	51.6	58.5	74.5	128.6	88.5	81.9	54.9	55.5	45.9		
52	76.9	76.5	120.0	331.8	183.3	142.2	98.3	100.8	105.1		
53	142.1	161.5	331.3	1000.0	531.5	455.4	295.3	252.4	341.9		

Chart shows 5-day rolling average of total incidence (cases per day per 100,000 population) with coloured bands showing the contribution of each age cohort to the total incidence, having adjusted for the number of people in that age cohort (CSO 2016 census data). Heat map shows age-specific incidence (cases per week per 100,000 population) Healthcare workers and cases associated with outbreaks in long-term residential care are excluded, so that the analysis reflects the pattern of cases in the community. Cases dated by date of specimen collection.

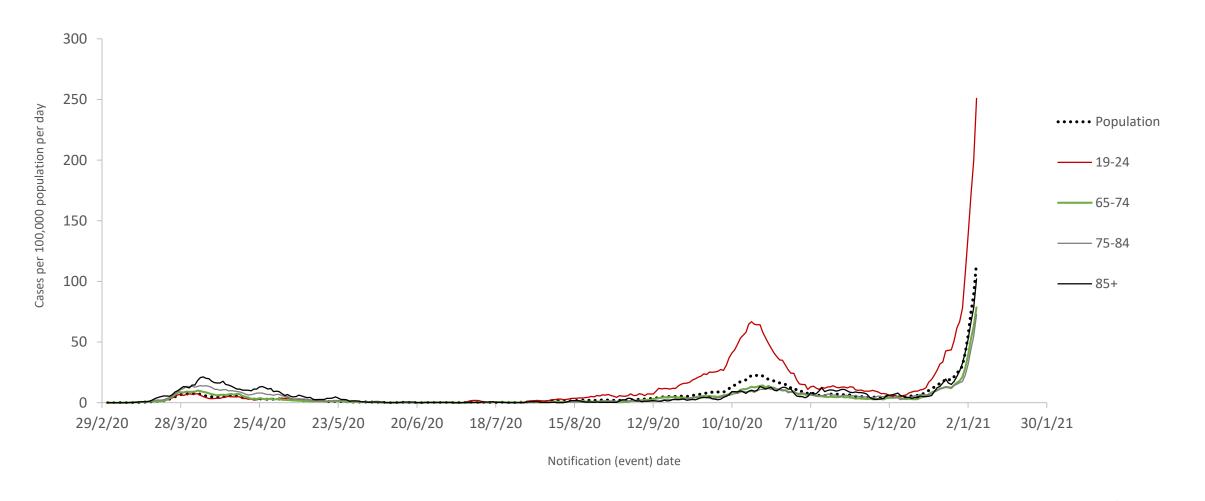




Incidence by age group (excl. HCW and LTRC)

This analysis compares incidence in those aged 65 and older with the population average and with young adults (aged 19-24). While in the second wave there is a delay of several weeks between increasing incidence in young people and an attenuated increase in older persons, in the third wave incidence is rising early and rapidly in those aged 65 and older.





Age-specific incidence (cases per day per 100,000 population within each age cohort, population from CSO 2016 census data). Healthcare workers and cases associated with outbreaks in long-term residential care are excluded, so that the analysis reflects the pattern of cases in the community. Cases dated by notification (event) date. Tests outsourced to German laboratory in April backdated, using the specimen collection date, to the date they would have been confirmed if tested in a timely manner.

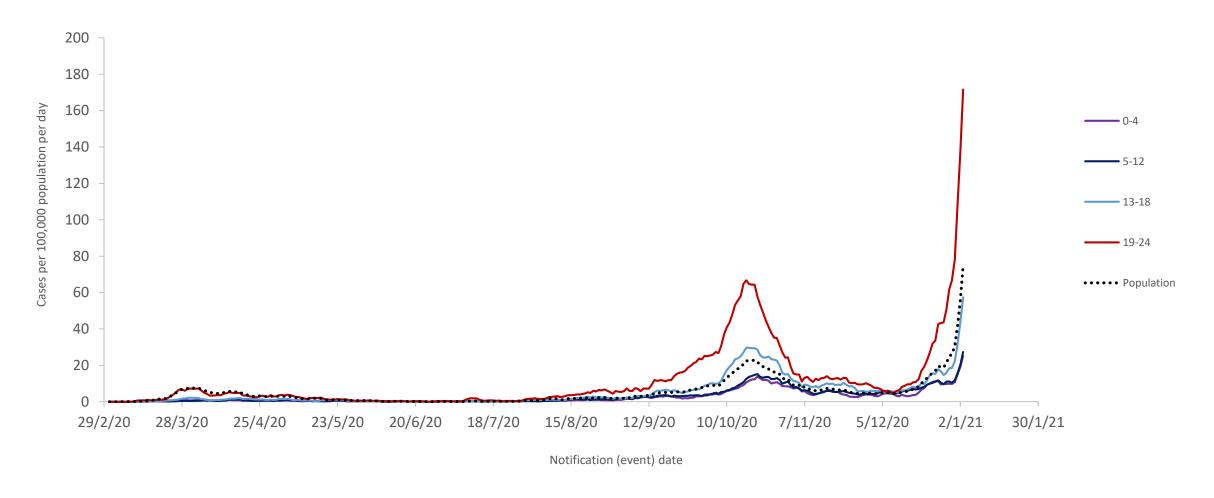




Incidence by age

Age-specific incidence for those aged under 25, compared with the overall population. The incidence in those aged 18 and under remains at or below the population average





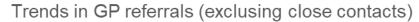
Age-specific incidence (cases per day per 100,000 population within each age cohort, population from CSO 2016 census data). Healthcare workers and cases associated with outbreaks in long-term residential care are excluded, so that the analysis reflects the pattern of cases in the community. Cases dated by notification (event) date. Tests outsourced to German laboratory in April backdated, using the specimen collection date, to the date they would have been confirmed if tested in a timely manner.



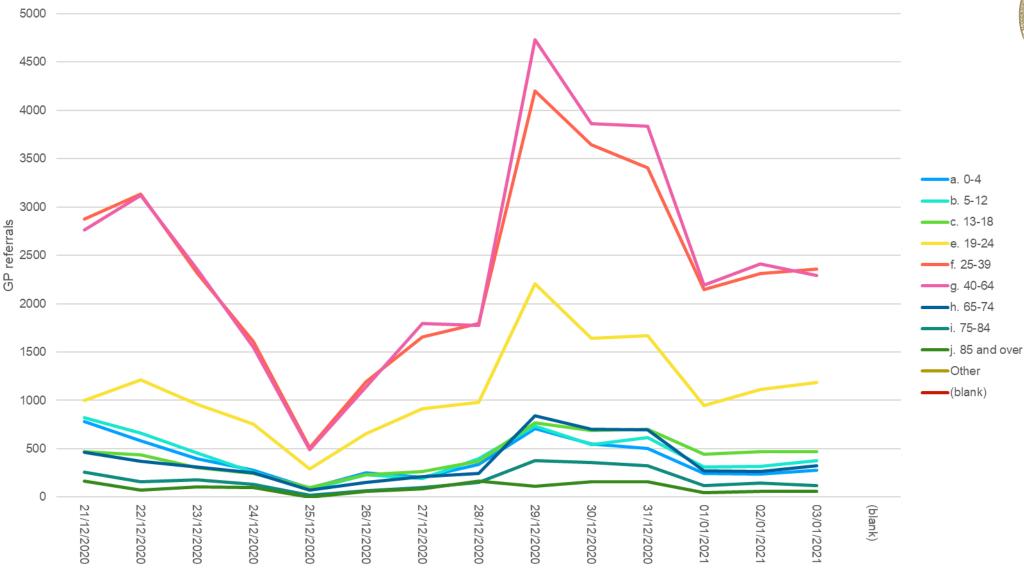




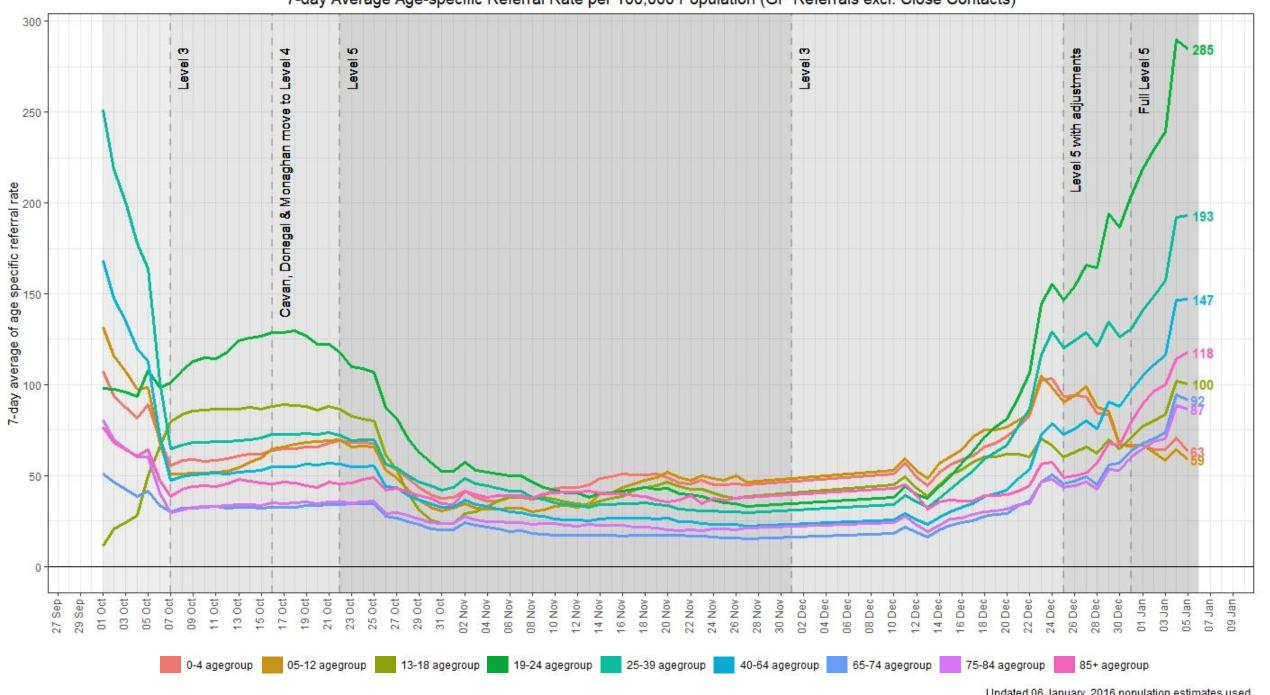
GP referrals







7-day Average Age-specific Referral Rate per 100,000 Population (GP Referrals excl. Close Contacts)



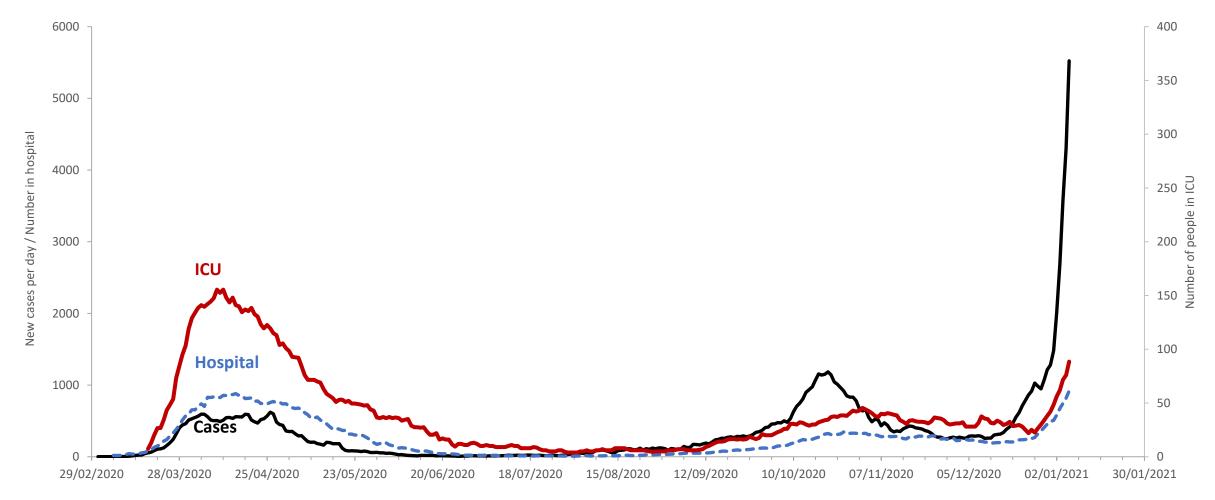


Hospital & ICU Data

Cases, numbers in hospital and intensive care

There was a long delay in the second wave between the increase in cases and the increase in the numbers of people in hospital because there was a long period in September and October where the disease was largely confined to younger adults. However, numbers in hospital are now rising sharply, as the recent rapid increase in incidence was more evenly distributed across age cohorts





Cases: Number of new cases confirmed per day, cases assigned to date confirmed by HPSC. Tests outsourced to German laboratory in April backdated, using the specimen collection date, to the date they would have been confirmed if tested in a timely manner. Hospital: number of COVID-19 confirmed patients in acute hospitals. ICU: number of COVID-19 confirmed patients in ICU. 5-day averages.

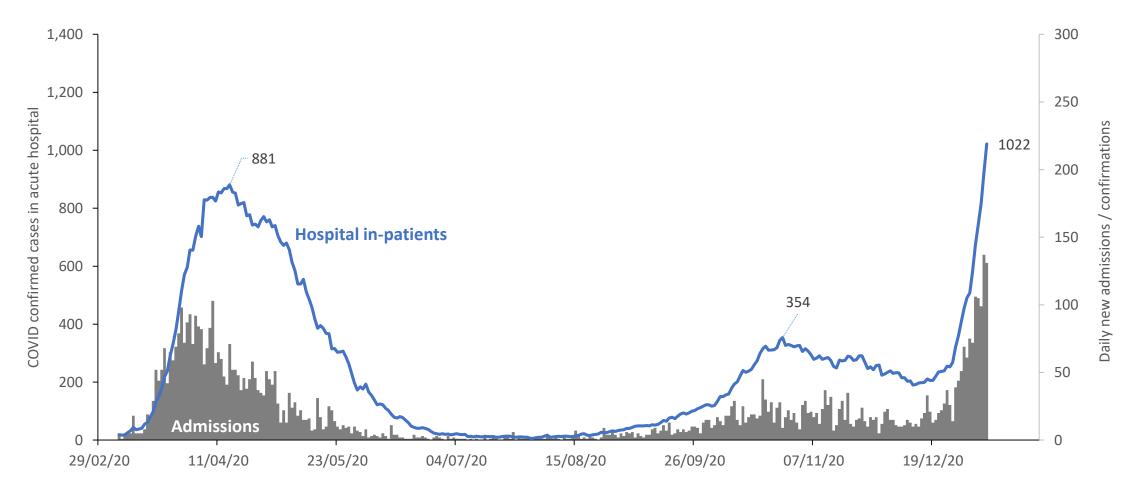




Confirmed cases in acute hospitals

The number of people in hospital with confirmed SARS-CoV-2 infection is now increasing rapidly



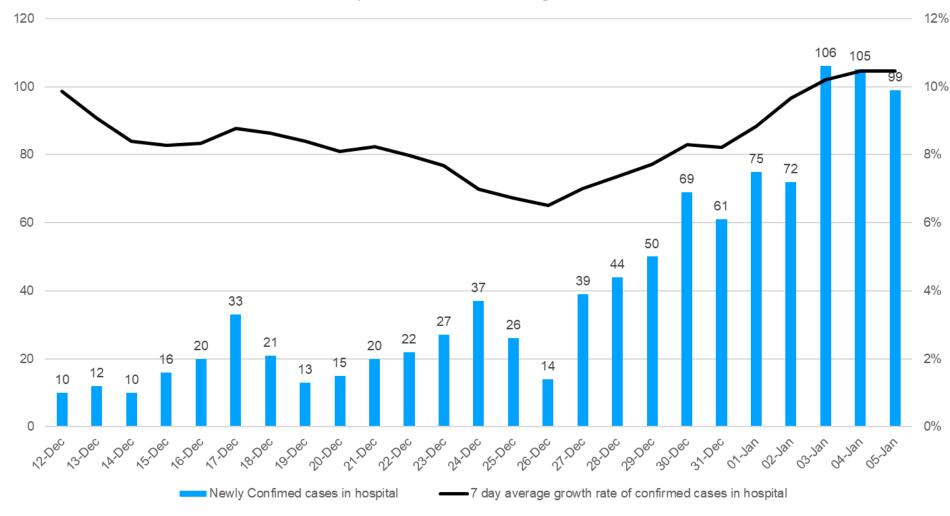






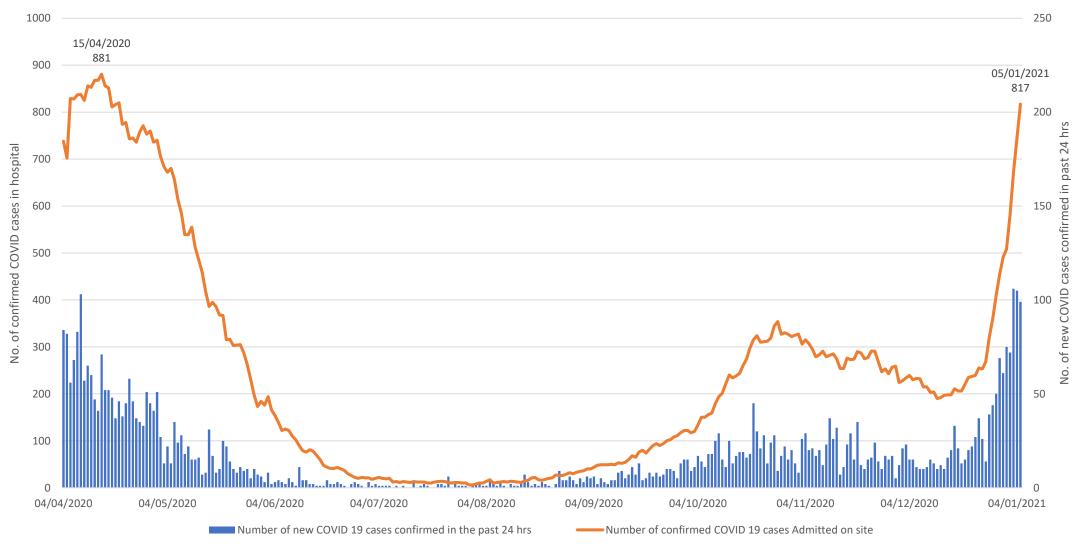
Hospital admissions and growth rate





No. of confirmed COVID cases in acute hospitals at 8AM and No. of new cases confirmed in past 24 hrs



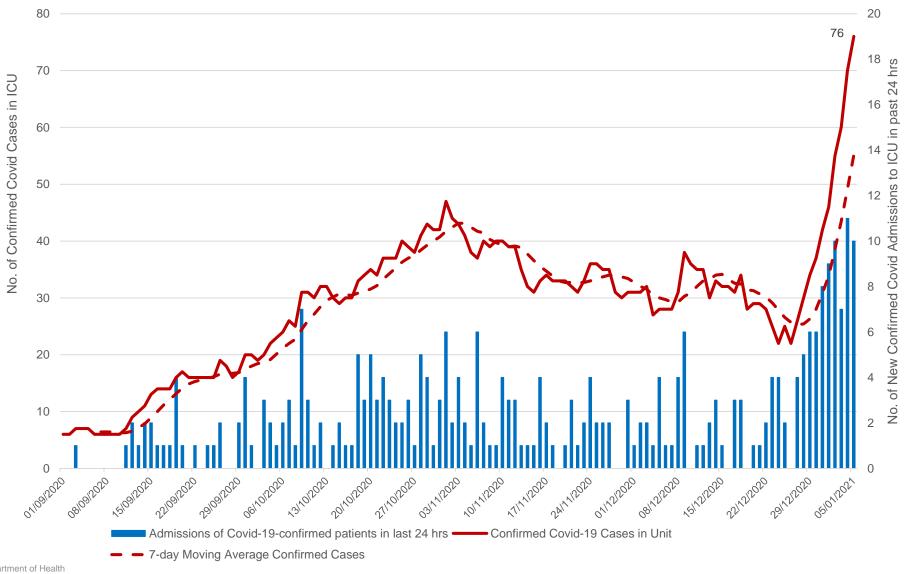


Total No. of Confirmed Covid Cases in ICU at 11.30AM &

No. of New Confirmed Covid Admissions to ICU in past 24 hrs since 01/09/20

(includes all reporting public and private hospitals and may differ from no. reported by HSE in public hospital ICUs)





No. of confirmed COVID cases in ICU at 11.30AM and No. of new admissions in past 24 hrs

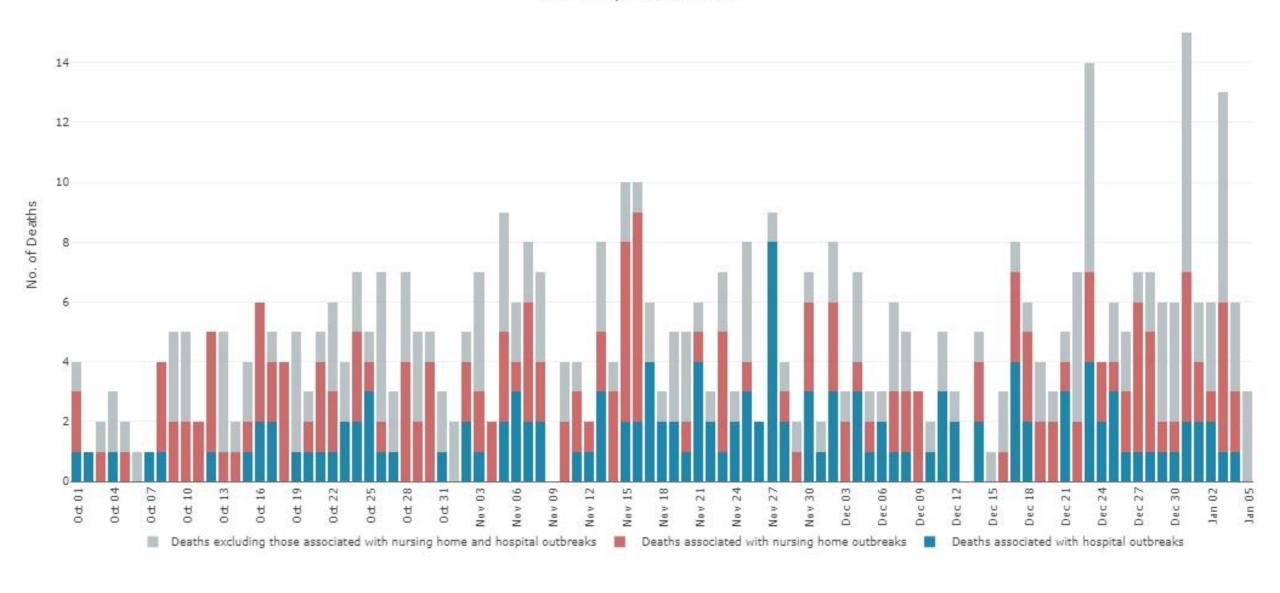






Deaths

Deaths by Date of Death





Outbreaks & Clusters

COVID-19 outbreaks by key outbreak locations, week 53 and overall, 2020 Ireland



Note: Due to the recent surge in case numbers, the number of outbreaks and linked cases in week 53 are likely an underestimate

- Since March 1st 2020, 10,742 outbreaks have been notified to CIDR
- In week 53, 154 outbreaks were notified; 49 in private houses, 105 in other locations

Key outbreak locations	Week 53	Weeks 10-31	Weeks 32-53
Workplace	11	51	304
Direct Provision Centre	1	21	21
Vulnerable groups*	1	19	98
Prisons	0	6	3
Nursing Home/Community Hospital	13	301	145
Acute hospitals	23	103	141
School [^]	11	0	295
Childcare facility	5	0	107

^{*}Includes Irish Travellers, Roma, homeless and addiction service population

[^]These outbreaks are associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks

Data source: CIDR January 2nd 2021– data to midnight 02/01/2021

Weekly Summary

Note: Due to the recent surge in case numbers, the number of outbreaks and linked cases in week 53 are likely an underestimate



- Total number of outbreaks week 53 n=154 compared with week 52 n=215
- Vulnerable groups
 - Two new outbreaks in week 53
 - One new Irish Traveller outbreaks -no linked cases
 - One new outbreak in a DPC with 9 linked cases

Workplace outbreaks

- Eleven new outbreaks in week 53 22 linked cases
- Largest open outbreak meat factory with 72 linked cases

Residential institution outbreaks

- 97 outbreaks in residential institutions with
 455 linked cases since week 32
- 22 outbreaks are 'open' with 73 linked cases
- Seven new outbreaks 2 linked cases

Nursing Homes & Community Hospitals

- 71/446 outbreaks remain open with 1031 linked cases
- Twenty-three new outbreaks with 62 linked cases since last week's report
- One new outbreak has 26 linked cases already

Acute hospitals

- 76 open outbreaks involving 25 hospitals,
 1,111 linked cases (range 1-138)
- Twenty-three new outbreaks in week 53 with 46 linked cases

Schools

11 new outbreaks in week 53 with 29 linked cases

Childcare facilities

- Five new outbreaks in week 53 with 12 linked cases
- One outbreak 6 linked cases

All data in this slide-set is CIDR data to midnight 02/01/2021 unless otherwise stated

Outbreaks in vulnerable groups - Summary August 2nd 2020 - January 2nd 2021



		Number o	of outbre	aks notifie	d	Laboratory confirmed cases linked to outbreaks (week 32-53)						
Vulnerable populations	Week 53	Week 53 outbreaks: Range in no. of cases [#]	Week 32-53	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 53	in lotal hospitalised		Total ICU cases	Total number of deaths*		
Roma community	0	n/a	9	7	3-74	0	149	9	3	0		
Irish Travellers	1	n/a	80	45	0-66	0	1193	53	4	0		
Direct provision centres	1	9	21	7	2-29	0	158	2	0	0		
Homeless [^]	0	n/a	7	1	2-2	0	15	5	1	2		
People with addictions	0	n/a	2	0	n/a	0	33	0	0	0		
Prisons	0	n/a	3	1	9	0	33	0	0	0		
Total	2	0-9	122	61	0-74	0	1581	69	8	2		

[^] Homeless facilities include some facilities that provide long term supported accommodation. Also includes staff of homeless facilities.

- Between weeks 32-53, a total of 1581 confirmed cases linked to 122 notified outbreaks in vulnerable populations
- Two new outbreaks in week 53 One in Irish Travellers with no linked cases and one in a DPC with 9 linked cases
- Sixty-one outbreaks remain 'open'
- Open outbreaks range in size from 0-74 cases

Data source: CIDR January 5th 2021– data to midnight 02/01/2021

^{*}All COVID-19 cases that died and were linked to outbreaks in these settings have been laboratory confirmed. No deaths in probable/possible cases linked to outbreaks in these settings have been notified.

[&]quot;n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

Acute Hospital Outbreaks – Summary August 2nd 2020 –January 2nd 2021



Table 5: Number of COVID-19 outbreaks and cases in acute hospital settings in Ireland, from 02/08/2020 to midnight on 02/01/2021. Data source: CIDR

		Number	of outbrea	aks notified		Laboratory confirmed cases linked to outbreaks (week 32-53)				
Outbreak location: Acute Hospitals	Week 53	Week 53 outbreaks: Range in no. of cases	Week 32-53	Number open	Open outbreaks: Range in no. of cases	Cases notified in week 53	Total cases	Total ICU cases	Total number of deaths	
	23	0-18	141	76	0-138	101	1717	35	135	

- Between weeks 32-53, a total of 1,717 confirmed cases linked to 141 notified outbreaks in acute hospitals
- 23 new outbreaks were notified in week 53 with 46 linked cases
- 76 outbreaks remain 'open' with 1111 linked cases
- Open outbreaks range in size from 0-138

Week of notification

A. Number of COVID-19 Outbreaks in Hospitals (n=141)

Data source: CIDR January 5th 2021 *Data to midnight 02/01/2021

43 44 45 46 47 48 49 50 51 52 53

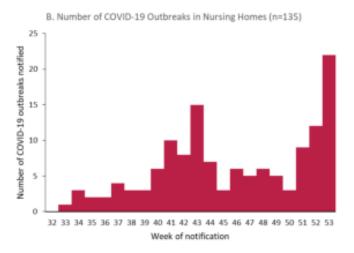
Nursing Homes and Community Hospital/Long Stay Units: Summary August 2nd 2020 – January 2nd 2021

		Number o	of outbre	aks notifie	d	Laboratory confirmed cases linked to outbreaks (week 32-53)					
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths	
Nursing home	22	0-26	135	64	0-82	65	2126	116	2	160	
Community Hospital/Long-stay unit	1	6-6	10	7	1-54	4	97	3	0	3	
Total	23	0-26	145	71	0-82	69	2223	119	2	163	



- Between weeks 32-53, a total of 2,223 confirmed cases were linked to 145 notified outbreaks in nursing homes and community hospitals/long-stay units
- 23 new outbreaks were notified in week 53 with 62 linked cases
- 71 outbreaks remain 'open' with 1031 linked cases
- Open outbreaks range in size from 0-82, five largest outbreaks have 72, 74, 80, 81 and 82 respectively









Data source: CIDR January 5th 2021 *Data to midnight 02/01/2021

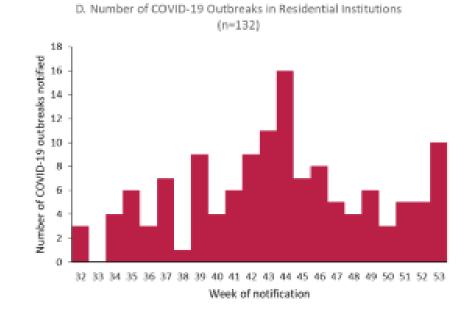
Residential Institution outbreaks - Summary August 2nd 2020 – January 2nd 2021



		Number of	f outbrea	ks notified		Laboratory confirmed cases linked to outbreaks (week 32-53)					
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths	
Centre for disabilities	3	0-2	62	12	0-11	1	304	11	0	3	
Children's / TUSLA residential centre	3	0-2	11	4	0-2	1	25	1	0	0	
Mental health facility	0	n/a	10	1	n/a	0	77	4	0	0	
Other	0	n/a	9	4	0-12	0	33	1	0	0	
Not Specified	1	n/a	5	1	n/a	0	16	4	1	1	
Total	7	0-2	97	22	0-12	2	455	21	1	4	

[&]quot;n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

- Between weeks 32-53, a total of 455 confirmed cases linked to 97 notified outbreaks in residential institutions
- Seven new outbreaks in week 53 three in disability centres with 11 linked cases and three in a Children's / TUSLA residential centre with 6 linked cases
- Twenty-two outbreaks remain 'open' with 73 linked cases
- Open outbreaks range in size from 0-12 cases



Data source: CIDR January 5th 2021 *Data to midnight 02/01/2021

Outbreaks associated with school children and staff, childcare facilities and third level students - Summary August 2nd 2020 –January 2nd 2021



		Number (of outbre	aks notified	ı	Laboratory confirmed cases linked to outbreaks (week 32-53)					
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases***	Total number of deaths	
School*	11	0-5	295	109	0-48	15	1234	8	0	0	
University/college/third level students**	0	n/a	90	33	2-190	0	1006	12	0	0	
Childcare facility	5	0-6	107	30	0-22	4	529	3	1	0	
Total	16	0-6	492	172	0-190	19	2769	23	1	0	

^{*}These outbreaks are outbreaks associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks

- Between weeks 32-53, a total of 2769 confirmed cases linked to 492 notified outbreaks in schools, childcare facilities (CCFs) and third level students
- Sixteen new outbreaks in week 53 11 in schools with 29 linked cases and five in CCFs with 12 linked cases
- 172 school and CCF outbreaks remain 'open' with 1270 linked cases

Data source: CIDR January 5th 2021 *Data to midnight 02/01/2021

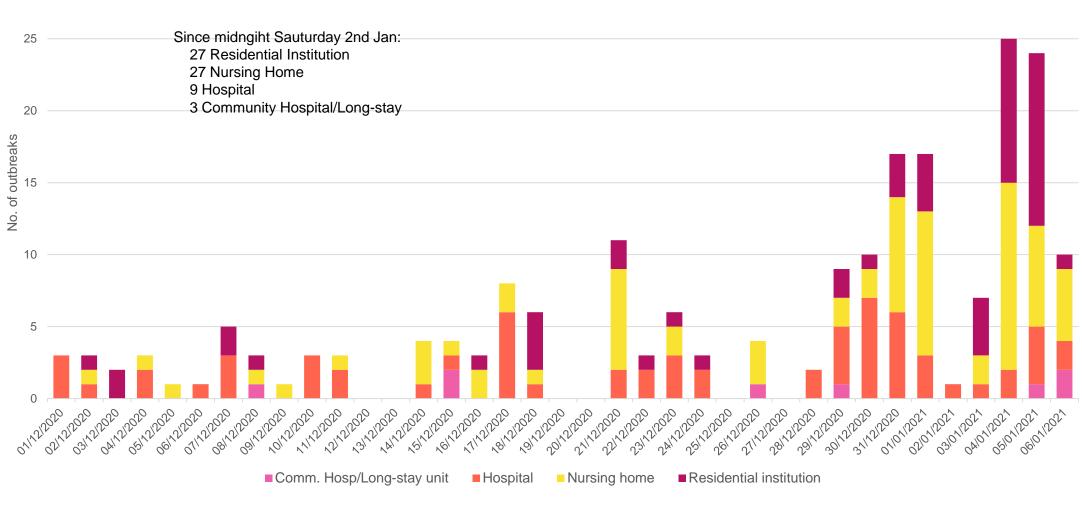
^{**}These outbreaks also include outbreaks among third level students that may have occurred in other locations, such as private houses or social gatherings, and may not be directly linked to a University/college location

^{***}Case admitted to ICU is an adult

[&]quot;n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

Acute Hospitals and Residential Care Facilities No. of new outbreaks created by date outbreak created (as of 16.00, 06/01/21)





30



Test & Trace Update

Testing and contact tracing NPHET update

Testing

Over the past seven days, 29th Dec-4th Jan, there has been approximately 164,276 swabs taken for COVID-19 testing

Of these:

- 120,635 (73%) of these were taken in the community
- 22,367 (14%) swabs were taken in acute settings.
- 21,367 (13%) swabs taken were taken as part of the Serial Testing programmes of staff in residential care facilities and staff in food production facilities.

Contact Tracing

From 29th Dec– 4th Jan, a total of 95,430 calls were made in the Contact Tracing Centres. Over the past seven days, the average number of close contacts per case was 4.8, compared to 5 in the previous week.

Turnaround Times (29th Dec-4th Jan)

End-to-end turnaround time

- The median end-to-end turnaround time, from referral to SMS, for not detected tests in the community setting was 2 days.
- s **2 days.**
- The median turnaround time for time, from referral to communication of a detected result by SMS, in community settings was 2 days.
- The median end-to-end turnaround time, from referral to the end of contact tracing, for **detected cases** in the <u>community setting</u> was **2.9 days.**

Overall Swab to laboratory result communicated – Medians: 25 hours in Acute, 28 hours in Serial Testing, 28 hours in Community

Referral to appointment

In the community, the median time from referral to appointment was 0.8 days.

72.7% of GP referrals are provided with a COVID-19 test appointment within 24 hours.

Contact Tracing:

The median time to complete all calls, from the 29th Dec-4th Jan was 0.9 days.

40 An Roinn Sláinte | Department of Health

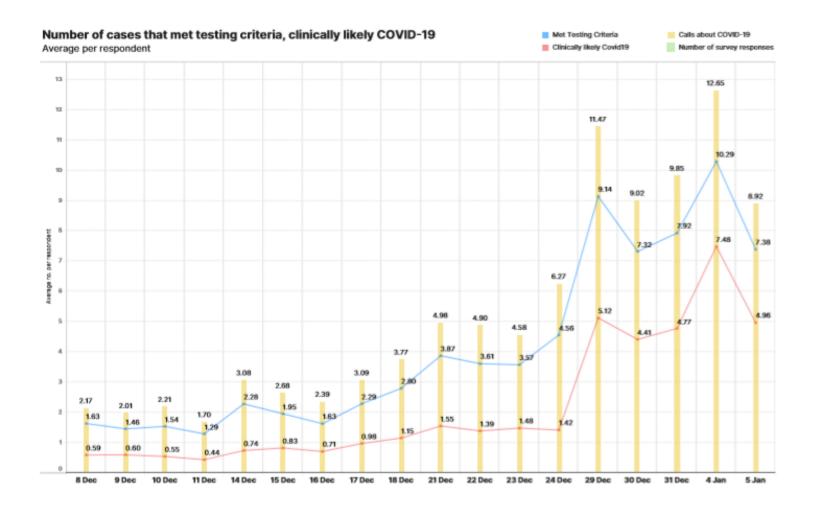
Source: HSE

CMP close contact update (week ending 3rd Jan)



- The number of close contacts during week ending 3rd Jan was 81,523, a 144% increase compared to the previous week (33,390). 84% (68,208) of these contacts had been informed of their close contact status by time of CMP report preparation.
- Of those referred for testing with an appointment 28th-31st Dec 71% of those referred for Test 1 attended.
- The positivity rate for Test 1 was 20% for results returned.
- The number of complex contact settings remained stable at 4,166 for the week ending 3rd January.





Source: COVID-19

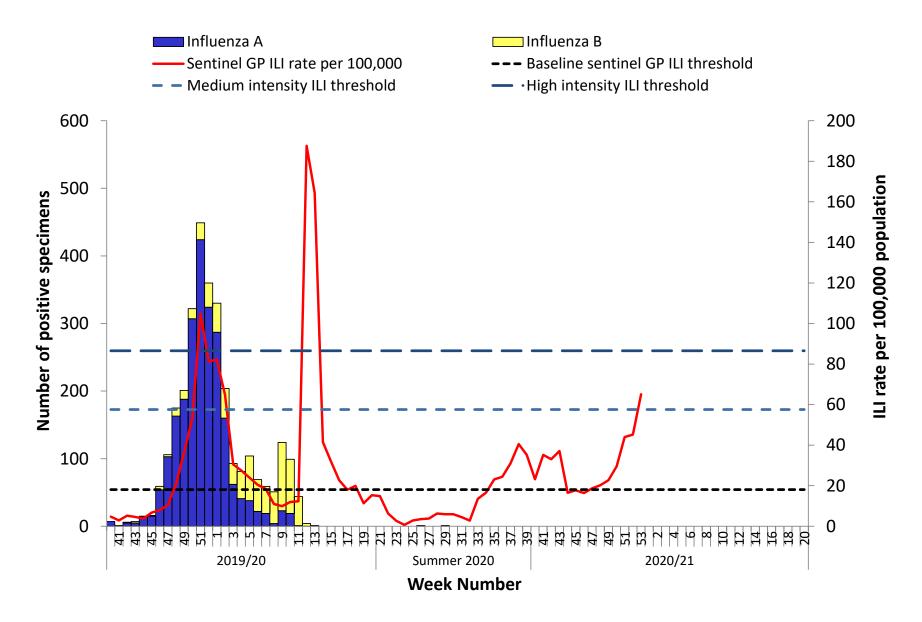
42 An Roinn GP Community Tracker

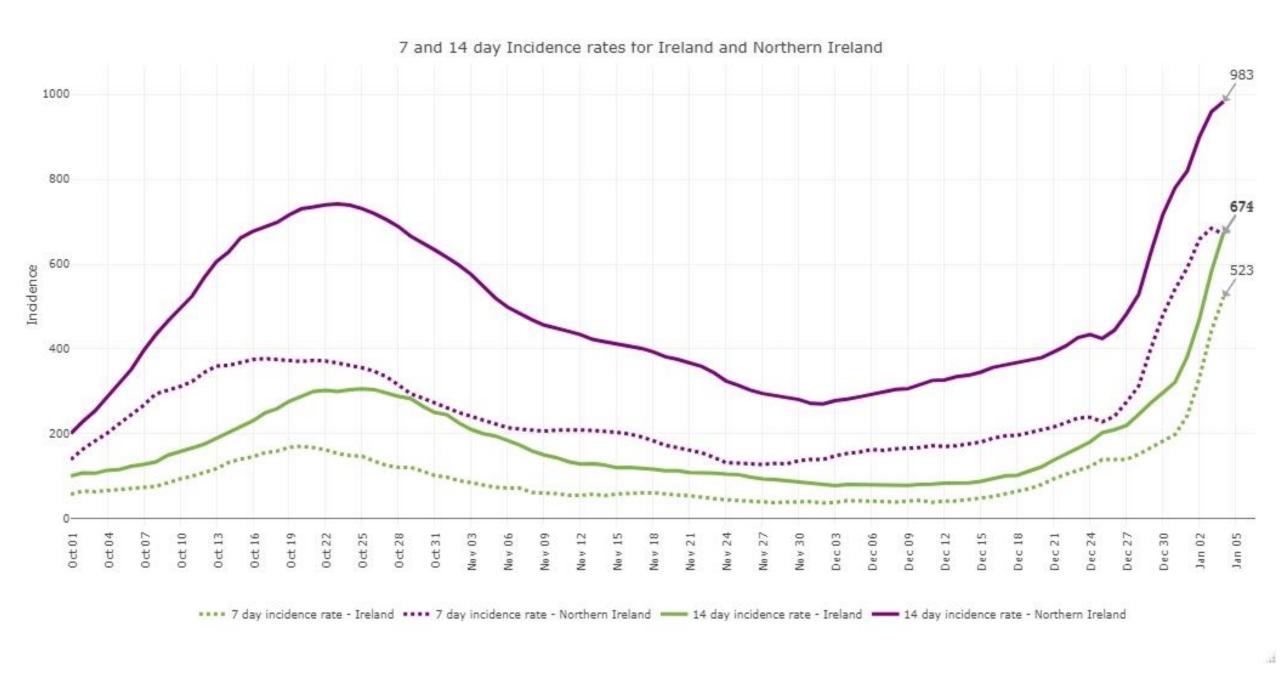


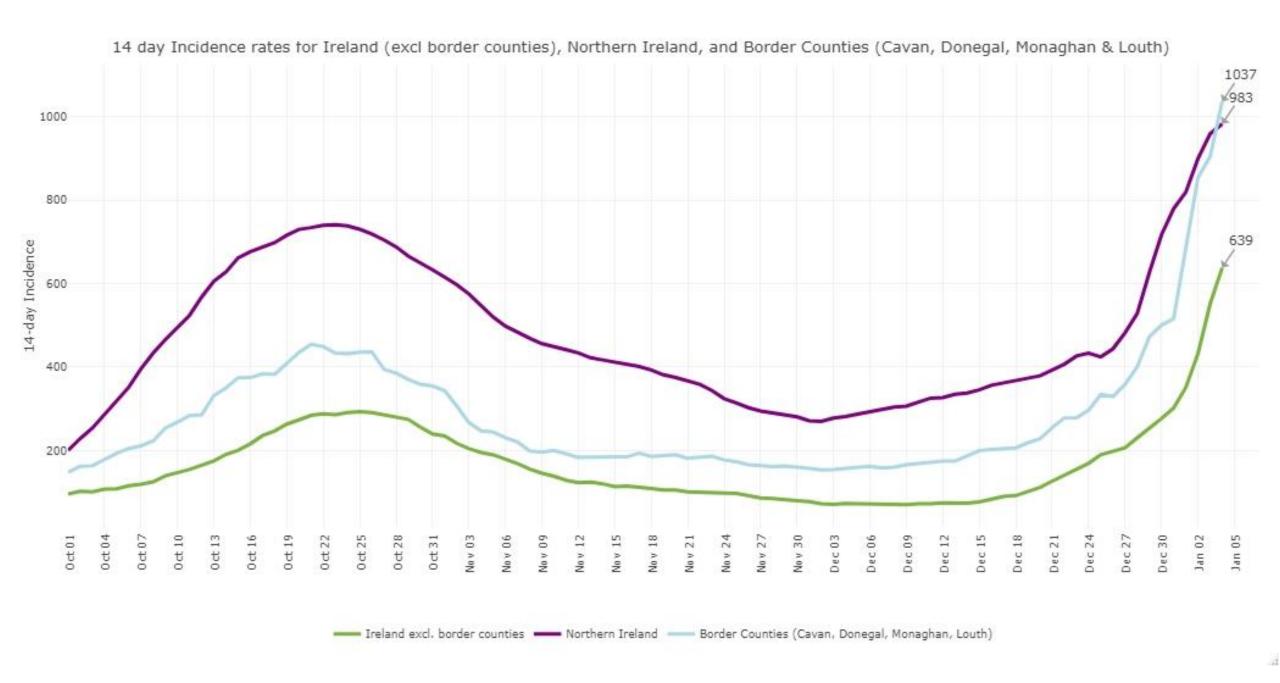


Sentinel GP ILI consultation rates per 100,000 population & number NVRL influenza positive specimens by week









Laboratory Completed Tests during Last 7 Days (30 Dec 2020 - 5 Jan 2021) by LGD

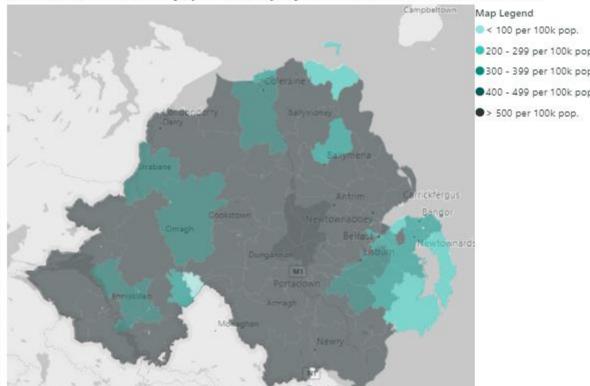
Local Government District	+ve Cases Last 7 Days	Last 7 Day Rate per 100K	Individuals Tested Last 7 Days
Antrim and Newtownabbey	913	639.9	4,102
Ards and North Down	546	339.4	3,482
Armagh City, Banbridge and Crai	1,848	864.8	6,837
Belfast	1,850	542.2	9,751
Causeway Coast and Glens	699	484.5	3,262
Derry City and Strabane	1,013	672.3	4,798
Fermanagh and Omagh	625	535.0	3,411
Lisburn and Castlereagh	663	456.7	3,619
Mid and East Antrim	767	553.4	3,295
Mid Ulster	1,369	928.0	4,963
Newry, Mourne and Down	1,557	864.1	6,329
Not Known	294		1,832
Total	12,144	645.4	55,681

Monaghan 1321 - 1639

Donegal 721 – 1052 Cavan 801 – 1013

Louth 1204 – 1529

Positive Cases in last 7 Days per 100K Pop. by Postal District (28 Dec 20 - 3 Jan 21)



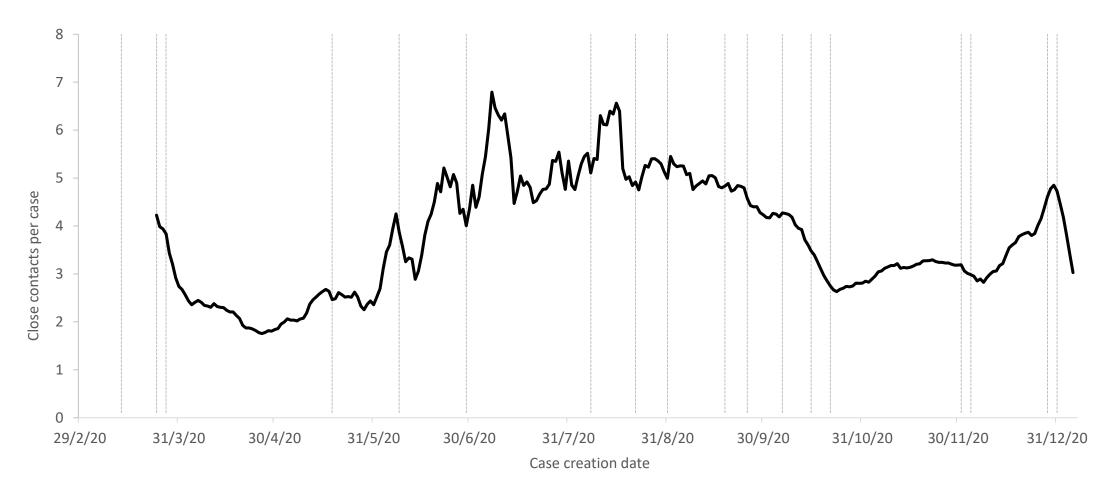


Growth in Cases & R number

Close contacts of adult confirmed cases

The mean number of close contacts per confirmed case. The number of contacts was very low (2 or less) during April, but increased to 5-6 per case during the summer. The progressive escalation of public health measures during October was associated with a progressive reduction in close contacts, to below 3. The number of close contacts remained below 3.3 on average until early December, rose to almost 5 on average by 28 December, and is now decreasing rapidly; it is currently 3.0





The average number of close contacts per confirmed case. Data from COVID-19 Care Tracker (CCT). Cases dated by case creation date. Cases (but not contacts) aged 18 and younger are excluded. Data are 7-day trailing averages except for the months of June – August where a 21-day trailing average is used due to very low case counts.

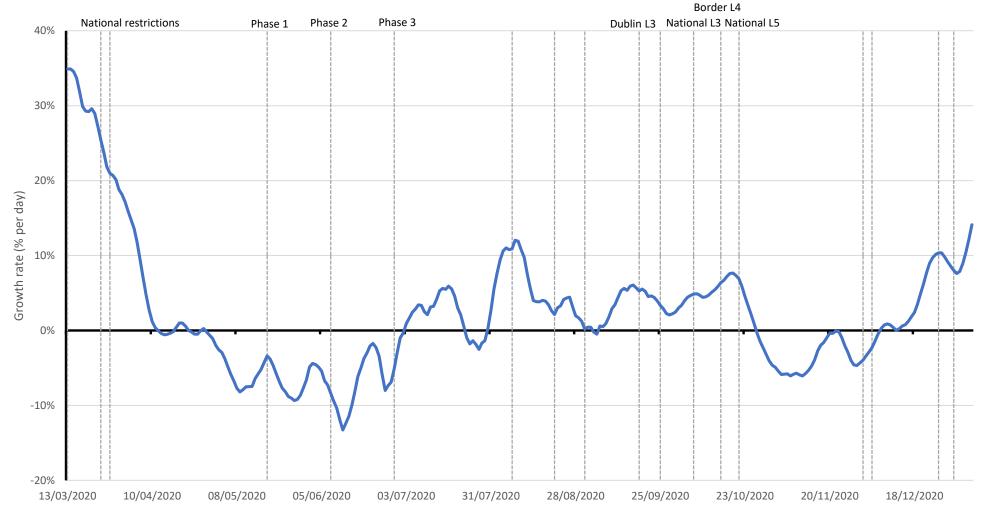




Growth rate for case numbers

When the pandemic in Ireland grew very rapidly in early March, at over 30% per day. The national restrictions introduced in late March suppressed transmission, with daily incidence decreasing at -5% to -10% per day. This was sustained until the end of June, after which case numbers started to grow, on average at 4% to 5% per day. A period of very rapid growth can be seen in early August associated with the outbreaks in Kildare-Laois-Offaly. Level 3 measures in Dublin reduced growth rate to zero for a period (data not shown). Incidence decreased at -5% to -7% per day for the first three weeks of Level 5 measures, at a slower rate thereafter, and is now increasing by approximately 14% per day



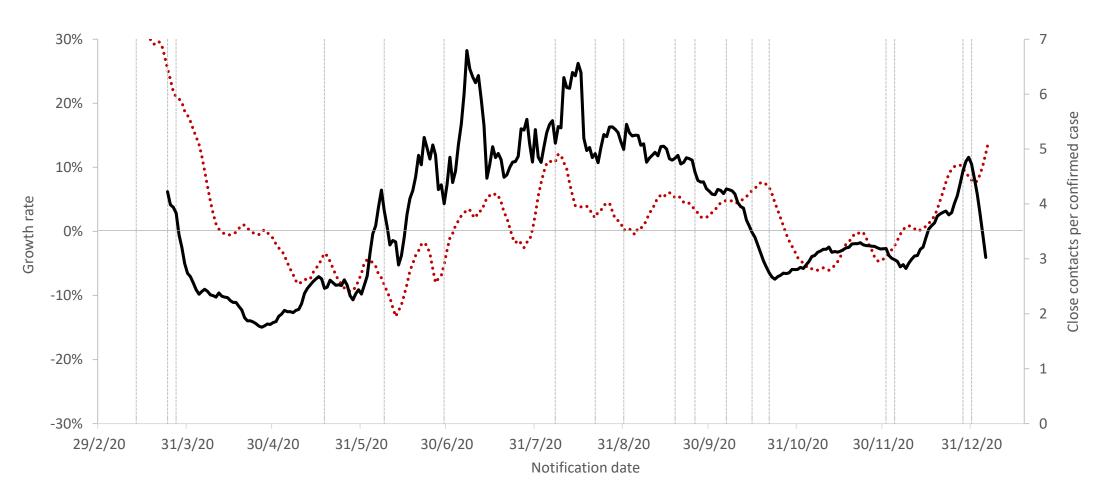




Close contacts and growth rate

An increase in close contacts is associated with an increase in growth rate





The average number of close contacts per confirmed case (black solid line) and growth rate in daily case numbers (red dotted line). Close contact data from COVID-19 Care Tracker (CCT) Cases dated by case creation date. Cases (but not contacts) aged 18 and younger are excluded. Data are 7-day trailing averages except for the months of June – August where a 21-day trailing average is used due to very low case counts. Growth rate calculated as the average growth rate over a 14-day trailing window with cases dated by notification (event) date





Estimates of effective reproduction number (R)

Reproduction number is extremely high, currently estimated at 2.4 to 3.0; this estimate has increased significantly over the last week.



Method	Estimate	95% confidence interval
SEIR model-inferred	2.92	2.2 – 4.0
Bayesian model	2.95	2.14 – 4.10
Time-dependent R	1.64	1.50 – 1.80
GAM estimate 28 Dec 2020	1.96	1.64 – 2.28
GAM estimate 5 Jan 2021	2.44	1.85 – 3.02

Estimates generated 6 January 2021, refer to IEMAG technical notes for methodology. Estimates are unreliable when case numbers are low or variable. SEIR-inferred estimate is slow to respond to changes in R. The time-dependent R estimate lags behind other estimates. These R estimates relate to viral transmissions and infections that occurred approximately 7-14 days ago. The estimate of R is influenced by different patterns of transmission in large outbreaks, smaller clusters, and individual transmission.





Situation analysis 6 January 2021



- The level of infection has increased rapidly in recent weeks
 - Cases (5-day average) 5525 cases per day; 14-day incidence 819 per 100,000
 - Growth rate 12%-14% per day over last 14 days
 - Reproduction number 2.4 3.0
 - Incidence very high across all age groups, especially young adults
 - Incidence in those 65 and older remains high and a cause for concern
 - Incidence in those aged 18 and younger remains at or below population average
- Numbers in hospital and ICU increasing rapidly
- Very high growth rates suggest B.1.1.3 (UK) variant now playing a role in accelerating transmission
- Scenario models raise the possibility of 1500-2500 people in hospital, and 200-400 people in ICU by mid-January, if we do not act to radically reduce transmission and incidence
- The average number of close contacts of confirmed cases increased from 2.8 in early December to a peak of 4.7 on 28 December and is now falling rapidly (3.0 on 5 Jan)
- We must suppress transmission to protect each other from serious illness, and to protect our health services and healthcare workers.













European Data

EU/UK ranked by 14 day percentage change (5th January)

EU/EEA and the UK	14 day incidence		% change in 14 day incidence
Ireland	649.97		
United Kingdom	981.2		
Cyprus	822.47	538.65	53%
Czechia	1159.97	787.6	47%
Malta	334.74	274.27	22%
Spain	326.47	272.86	20%
Portugal	568.06	497.02	14%
Latvia	615.15	542.62	13%
France	291.55	279.64	4%
Slovenia	989.21	955.73	4%
Estonia	550.53	538.02	2%
Slovakia	657	659.13	0%
Italy	337.81	363.83	-7%
Netherlands	725.96	825.4	-12%
Sweden	795.2	908.06	-12%
Lithuania	1217.32	1430.12	-15%
Poland	306.55	365.54	-16%
Austria	305.28	379.24	-20%
Denmark	564.26	784.12	-28%
Germany	291.46	407.12	-28%
Belgium	203.85	298	-32%
Romania	257.29	385.27	-33%
Finland	63.19	98.81	-36%
Greece	86.57	138.01	-37%
Hungary	241.74	517.59	-53%
Bulgaria	160.02	375.71	-57%
Croatia	415.73	1034.55	-60%
Luxembourg	373.82	1011.7	-63%

- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at John's Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data

EU/UK ranked by 14 day incidence (5th January)

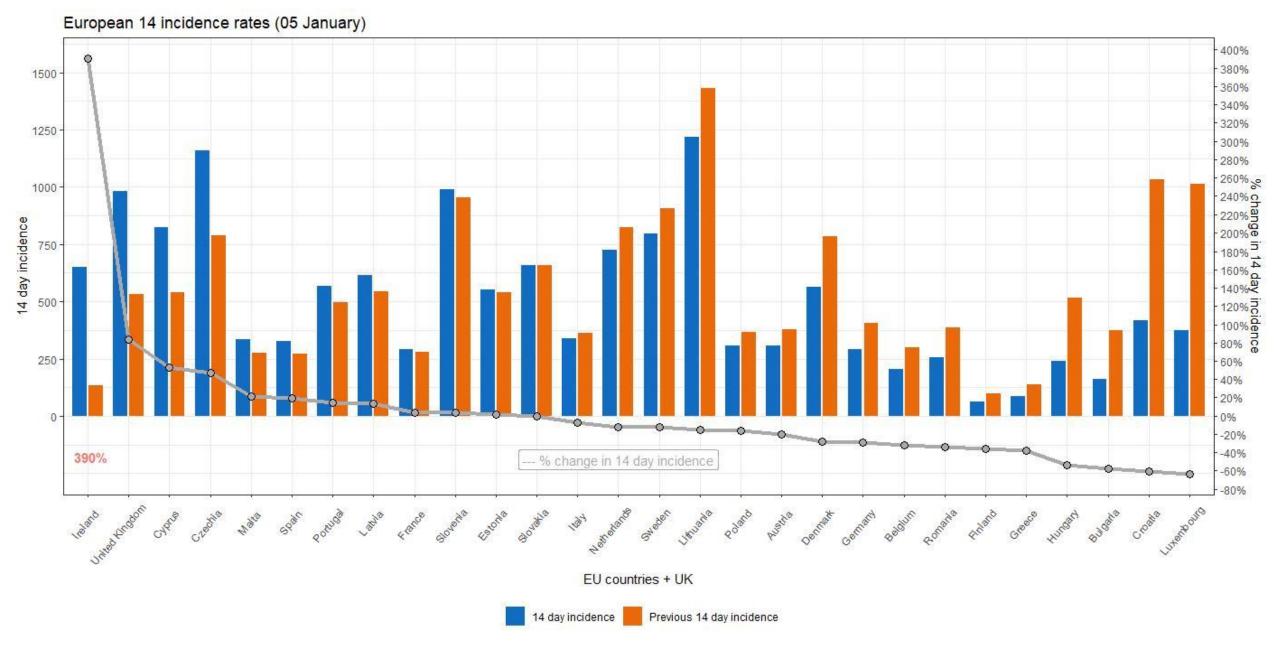
EU/EEA and the UK	14 day incidence		% change in 14 day incidence
Lithuania	1217.32	1430.12	-15%
Czechia	1159.97	787.6	47%
Slovenia	989.21	955.73	4%
United Kingdom	981.2	532.8	84%
Cyprus	822.47	538.65	53%
Sweden	795.2	908.06	-12%
Netherlands	725.96	825.4	-12%
Slovakia	657	659.13	0%
Ireland	649.97	132.57	390%
Latvia	615.15	542.62	13%
Portugal	568.06	497.02	14%
Denmark	564.26	784.12	-28%
Estonia	550.53	538.02	2%
Croatia	415.73	1034.55	-60%
Luxembourg	373.82	1011.7	-63%
Italy	337.81	363.83	-7%
Malta	334.74	274.27	22%
Spain	326.47	272.86	20%
Poland	306.55	365.54	-16%
Austria	305.28	379.24	-20%
France	291.55	279.64	4%
Germany	291.46	407.12	-28%
Romania	257.29	385.27	-33%
Hungary	241.74	517.59	-53%
Belgium	203.85	298	-32%
Bulgaria	160.02	375.71	-57%
Greece	86.57	138.01	-37%
Finland	63.19	98.81	-36%

- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data

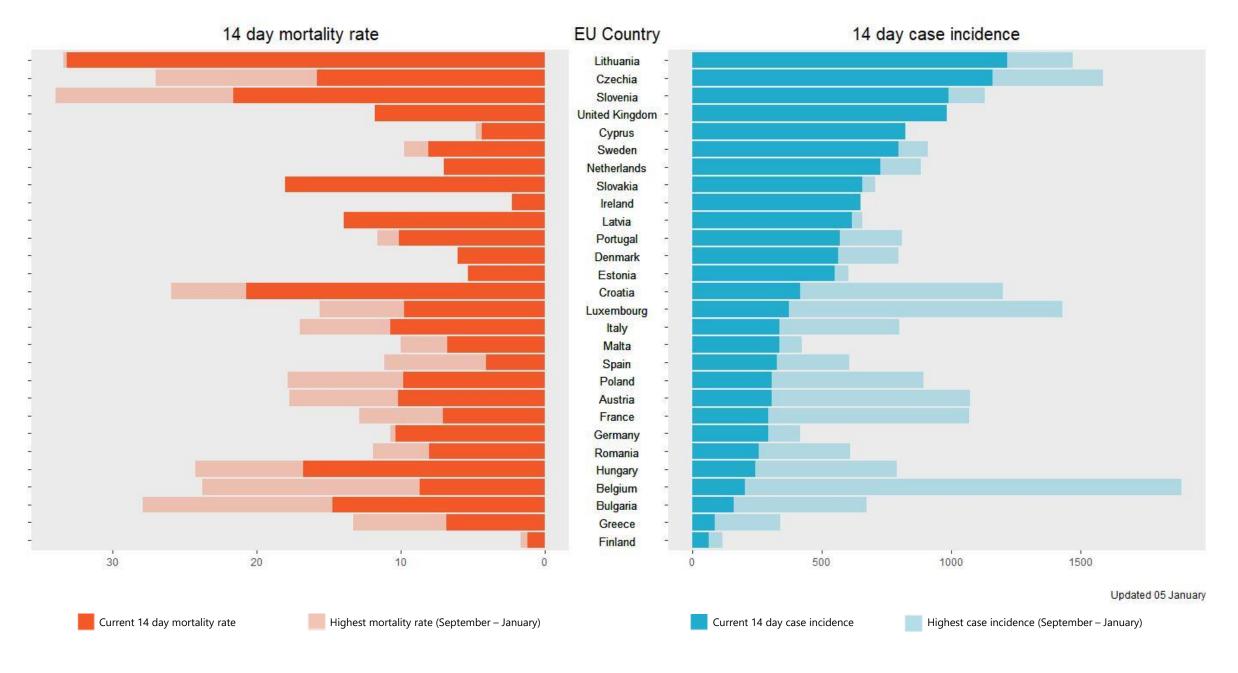
EU/UK ranked by 7 day percentage change (5th January)

EU/EEA and the UK		Previous 7 day incidence	% change in 7 day incidence
Ireland	503.93		
Portugal	358.71		
Czechia	695.05		
United Kingdom	578.54		
Spain	190.44		
Slovakia	382.83		
Malta	191.83		
France	163.58		
Italy	188.77		
Cyprus	444.46	378.01	18%
Latvia	332.2		
Slovenia	532.24		
Poland	163.58	142.97	14%
Bulgaria	84.9	75.12	13%
Austria	159.54	145.74	9%
Hungary	125.77	115.97	8%
Finland	32.45	30.74	6%
Sweden	408.1	387.1	5%
Romania	131.11	126.18	4%
Estonia	276.43	274.1	1%
Germany	146.16	145.3	1%
Greece	42.95	43.61	-2%
Belgium	97.71	106.15	-8%
Lithuania	558.79	658.53	-15%
Croatia	189.85	225.88	-16%
Netherlands	331.27	394.69	-16%
Luxembourg	169.5	204.32	
Denmark	247.9	316.36	-22%

- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data



- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data



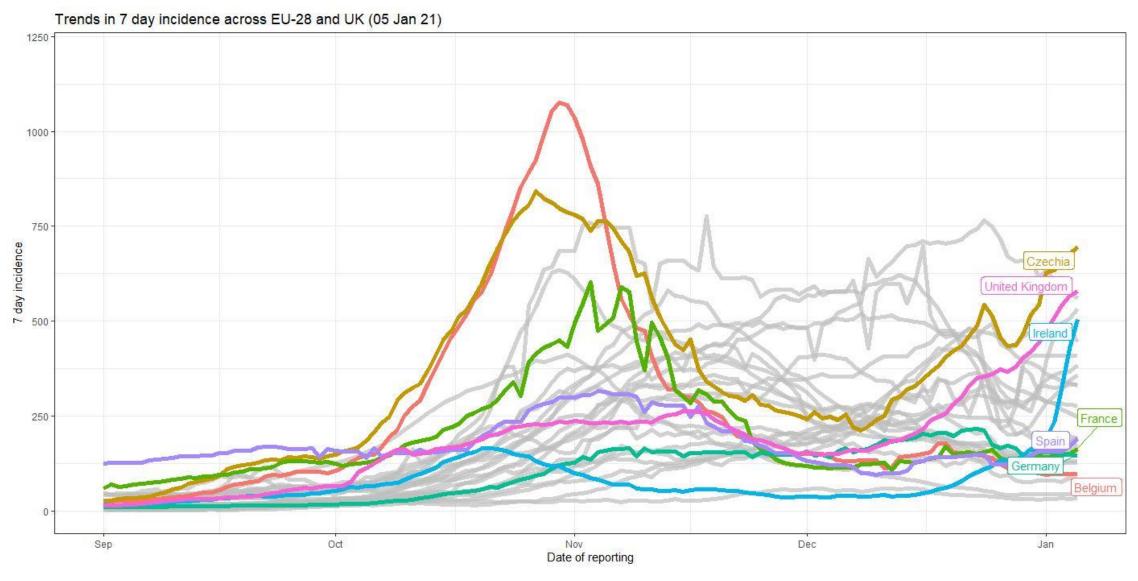
- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data

European trends since start September (14 day incidence)

Trends in 14 day incidence across EU-28 and UK (05 Jan 21) 2000 14 day incidence Spain Sep Oct Nov Dec Jan Date of reporting

- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data

European trends since start September (7 day incidence)

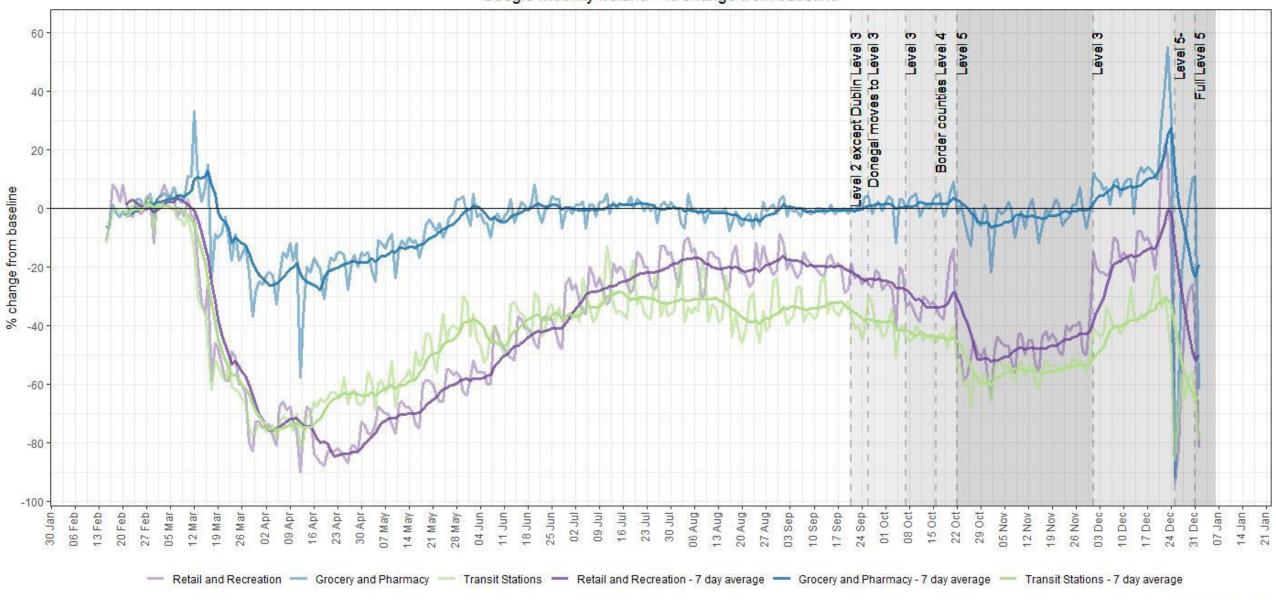


- As of 16th Dec, this daily data is now sourced from Our World In Data (OWID) instead of ECDC as they have switched to weekly reporting (Thursday evenings).
- OWID source their confirmed cases and deaths data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). https://github.com/owid/covid-19-data/tree/master/public/data

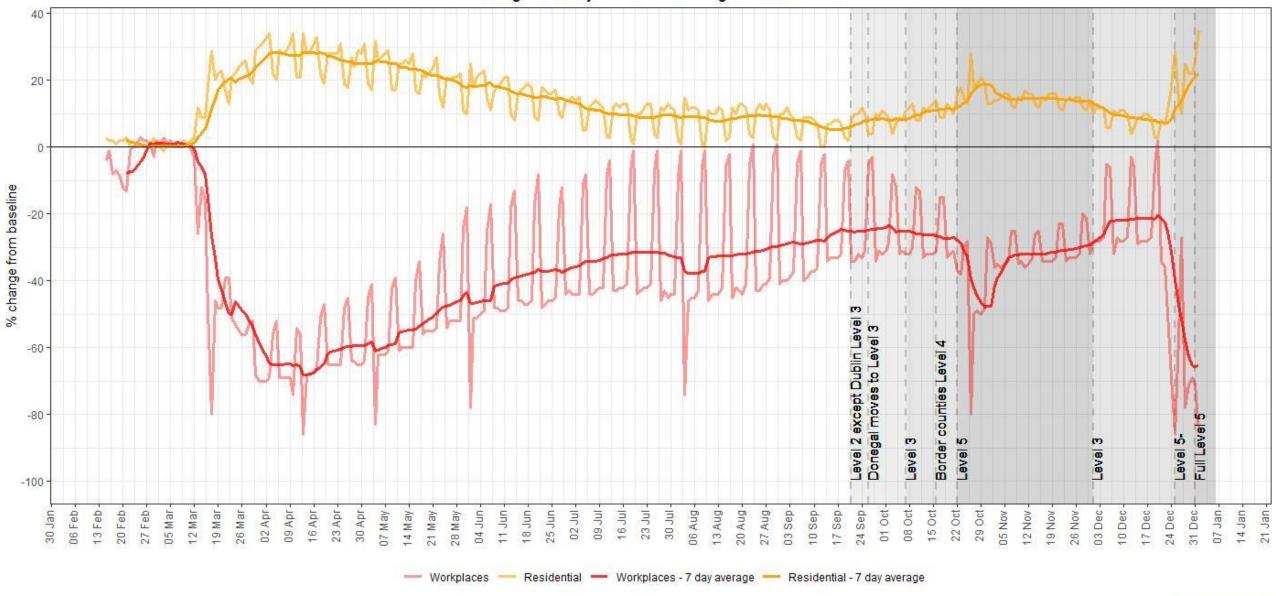


Compliance Data

Google Mobility Ireland - % change from baseline



Google Mobility Ireland - % change from baseline



Apple Mobility Ireland - % change from baseline

