An Roinn Sláinte
Department of Health
Office of the Chief Medical Officer

Mr. Stephen Donnelly TD,
Minister for Health,
Department of Health,
Miesian Plaza,
50-58 Lower Baggot Street,
Dublin 2.

10th December 2020

Via email to Private Secretary to the Minister for Health

Dear Minister,

I write further to today's meeting of the COVID-19 National Public Health Emergency Team (NPHET).

The NPHET reviewed the latest epidemiological data and the following key points were noted:

- A total of 1,889 cases have been notified in the 7 days to 9th December, which was similar to the previous 7 days in which there were 1,928 cases;
- As of 9th December, the 7- and 14-day incidence rates per 100,000 population are 40 and 80, respectively; these compare to rates of 40 and 85 at the time of the last NPHET meeting a week ago;
- Nationally, the 7-day incidence as a proportion of 14-day incidence is 50%, demonstrating that there has been a similar number of cases in the last 7 days compared with the preceding 7 days;
- The 5-day rolling average has increased from 275 on 2nd December to 286 on 9th December;
- Of cases notified in the past 14 days, 64% have occurred in people under 45 years of age; the median age for cases notified in the same period is 35 years;
- The proportion of cases notified in the over 65 age group has increased slightly. In the last seven days, 13% of cases notified were aged over 65, this proportion increased from 12% in the previous seven days; we continue to observe higher incidence in those aged over 85.
- We continue to see a high proportion of infections in healthcare workers who account for 13% of all reported cases in the last 14 days.
- Incidence rates in county Donegal remain high relative to the rest of the country. The 14-day incidence in Donegal is 227 per 100,000 population which is almost 3 times the current national 14-day incidence rate of 80 per 100,000 population;
- There has been a slight reduction in 14-day incidence overall in the rest of the country, however 12 counties now have a 7-day incidence as a percentage of 14-day incidence greater than 50% indicating an increase in cases in the last seven days compared with the previous seven days;

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- The best estimate of the reproduction number (R) is currently 0.9-1.0 with growth rate close to zero.
- A total of 77,019 tests were undertaken in the last seven days. The 7-day average test positivity rate has remained stable at 2.5% since the 24th November.
- Excluding serial testing the positivity rate has also remained stable over the last week and is estimated to be 3.9% over the last 7 days.
- There are currently 205 confirmed COVID-19 cases in hospital, compared with 234 on 3rd December. There have been 15 newly confirmed cases in hospital in the preceding 24 hours;
- There are currently 37 confirmed cases in critical care, compared with 32 on 2nd December. There have been 8 new admissions in the previous 24 hours; the total number of cases in critical care has sharply increased in recent days.
- To date, there have been 22 deaths notified with a date of death in December. This compares with 120 and 147 deaths notified (to date) with a date of death in October and November, respectively. Of the 147 deaths that have occurred in November; 51 (or 35%) were associated with hospital outbreaks and 46 (or 31%) were associated with nursing home outbreaks. Of the 22 deaths so far in December 10 have been associated with hospital outbreaks and 5 have been associated with nursing home outbreaks.

Further relevant information includes:

- An additional 352 new clusters were notified in the week to midnight 5th December 2020 (week 49). There were 5,424 open clusters nationally.
- There were 7 new clusters notified in acute hospitals with 91 linked cases in week 49.
- There are currently 52 open clusters associated with 21 acute hospitals. Approximately 1,000 cases have been linked to these outbreaks with 48% of these cases related to healthcare workers. There have been 63 deaths linked to these outbreaks.
- There were 5 new clusters notified in nursing homes/community hospitals with 69 linked cases in week 49, an increase on the previous week (40 cases);
- There are currently 33 open clusters associated with nursing homes. Approximately 900 cases have been linked to these outbreaks with 39% of these cases related to healthcare workers. There have been 57 deaths linked to these outbreaks.
- 8 new outbreaks in workplace settings were notified in week 49 with 55 linked cases; there are currently 123 open outbreaks in workplaces.
- There were 14 new outbreaks associated with schools with 50 linked cases in the last week (noting that transmission of COVID-19 within the school setting has not necessarily been established in these outbreaks).
- A range of mobility and compliance data suggest that movement and social contact in the population has increased since the introduction of Level 3 measures.
- Over the past seven days, the average number of close contacts per case was 3.5. The current positivity rates for close contacts between 30th November and 6th December are 12.6% and 3.7% at day 0 and day 7 testing, respectively.
- As of 9th December, the 14-day incidence per 100,000 population in Northern Ireland is 298, this is more than 3.5 times the 14-day incidence in the Republic of Ireland which is currently 80 per 100,000 population. The 7-day incidence per 100,000 population in Northern Ireland is 159, this is almost 4 times the 7-day incidence in the Republic of Ireland which is currently 40 per 100,000 population.

In summary, the epidemiological situation as currently exists in Ireland indicates that the level of infection is both high and static, with growth close to zero percent and the best estimate of R between 0.9 and 1.0. Of particular concern, we see persistently high incidence in healthcare workers and healthcare setting outbreaks including in acute hospitals with significant numbers of associated cases and deaths. The fragility of the epidemiological situation is underscored by the substantial disease burden in the acute healthcare system with the trend in hospitalised COVID-19 cases decreasing slowly against high absolute levels. Moreover, the number of confirmed cases in intensive care and deaths associated with COVID-19 are not reducing. We continue to see persistently high incidence in older persons, a population group most vulnerable to the adverse health outcomes associated with the disease. Measures of mobility in the population have increased but the number of close contacts per case is stable at this time. Modelling analyses show high risk of surge in January 2021 unless R remains close to 1.0 and indicate the need to maintain very close monitoring in respect of the disease profile over the coming days and weeks.

To support the management of the aforementioned outbreaks within acute hospitals, the NPHET recommends that the HSE establish a national outbreak control team which builds on and, where appropriate, integrates the work of the HSE National Antimicrobial Resistance and Infection Control team, to bring consistency of approach to the management of outbreaks of COVID-19 in acute hospitals, along with regular reporting to the NPHET.

The HSE presented a paper detailing concerns regarding the ongoing public health response to outbreaks, including the absence of a case and incident management information system, the need to improve functionality in the CovidCare Tracker and its links to CIDR, and the need to continue to provide additional broad multidisciplinary and specialist medical support to Departments of Public Health. The paper also included a proposed model for the ongoing clinical oversight of the Contact Management Programme and how the work of that Programme is to be better integrated with the work of Departments of Public Health and the Health Protection Surveillance Centre.

The NPHET raised concern that, notwithstanding the exceptional commitment shown by all staff involved in the public health operational response to the pandemic thus far, further progress is required in the timeliness and robustness of that response at local level. The NPHET emphasised that its concern should neither be interpreted as any criticism of those currently involved in the operational response nor as a request for them to improve the quality or quantity of their work, but rather underlines the importance of a continued focus on optimising the overall system such that it is aligned to the principles agreed by NPHET on the 19th November.

The NPHET considered the recent ECDC/EASA document *Guidelines for COVID-19 testing and quarantine of air travellers – Addendum to the COVID-19 Aviation Health Safety Protocol.* The NPHET acknowledged the major and continuing contribution that the ECDC has made to the assessment of risks and provision of advice on public health measures during the pandemic. Nonetheless, the NPHET expressed its concern in relation to several of the key conclusions in the ECDC/EASA document which it considers not to be consistent with other ECDC advices. In particular, the NPHET does not agree with the apparent underlying assumption that international travel does not constitute a potential amplifier of SARS-CoV-2 infection, especially in countries which have succeeded in achieving a lower level of infection. The evidence from the period in summer 2020 when there was an increase in international travel does not support this hypothesis.

The NPHET noted that the Department of Health has written to the ECDC conveying its concerns, which are shared by a number of other EU/EEA Member States, and is seeking assurance that processes are in place to ensure continued quality and consistency in the provision of advice.

The NPHET affirmed its existing public health advice that:

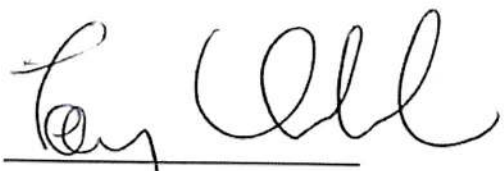
a) non-essential international travel, including discretionary travel for winter tourism, should be avoided;
b) For those who do travel, they are strongly advised to restrict their movements for 14 days post-arrival;
c) For those opting for a test at least 5 days after arrival, that the period of restricted movements should only end when they have received a not-detected result PCR test, and not from the point the test is taken;

The NPHET's view is that providing clear communications to the public on the risks associated with the festive season, and how to mitigate these, is paramount to positively influencing the behaviours required to reduce the risk of widespread community transmission over the coming weeks. Of particular concern to the NPHET is the intergenerational transfer of COVID-19 over the Christmas period. In particular, the communications campaign will highlight that as the incubation period for COVID-19 is up to 14 days and people can be contagious without symptoms, anyone planning to meet with loved ones who are medically vulnerable should plan to restrict their movements from 11 December.

Given the fragility of our current epidemiological position and the risk this poses to our core priorities of protecting public health while protecting non-COVID health and social care services, medically and socially vulnerable people and averting significant disruption to childcare and education it is important we continue to advise you as Minister as to the unfolding epidemiological situation so that you are in a position to fully brief Government. The NPHET remains available to provide any further advice and recommendations that may be of assistance to you and Government in relation to ongoing decision-making processes in respect of the COVID-19 pandemic.

I would be happy to discuss further, should you wish.

Yours sincerely,



Dr Tony Holohan
Chief Medical Officer
Chair of the COVID-19 National Public Health Emergency Team

cc. Ms Elizabeth Canavan, Department of the Taoiseach and Chair of the Senior Officials Group for COVID-19

Appendix 1 – Epidemiological slides 10.12.2020

An Roinn Sláinte
Department of Health

NPHET COVID-19 Update

10th December 2020

Current situation

	01-Oct	26-Oct (peak 14 day inc.)	21-Nov	24-Nov	27-Nov	30-Nov	03-Dec	06-Dec	09-Dec
14-day incidence	96.12	307.23	112.81	107.18	97.99	88.83	79.65	80.56	79.55
5-day average cases	407.2	924.0	364.2	289.2	253.2	274.2	264	293	286.4
Total weekly cases	2608	7034	2639	2243	1906	1853	1758	2036	1880

	01-Oct	26-Oct (peak 14 day inc.)	21-Nov	24-Nov	27-Nov	30-Nov	03-Dec	06-Dec	09-Dec
No. Hospital (8.A.M)	122	344	275	291	253	259	234	233	215
No. in ICU (18.30 P.M)	22	40	32	33	36	30	31	28	37

	01-Oct	26-Oct (peak 14 day inc.)	21-Nov	24-Nov	27-Nov	30-Nov	03-Dec	06-Dec	09-Dec
Positivity rate (7 day average)	3.0%	6.1%	3.6%	3.0%	2.6%	2.8%	2.7%	2.5%	2.5%

	August	September	October	November	December
Total Deaths	**5**	**37**	**120**	**147**	**22**
Deaths associated with Nursing Home outbreaks	**3**	**12**	**49**	**46**	**5**
Deaths associated with Hospital outbreaks	**0**	**7**	**24**	**51**	**10**

* Data refers to latest available information at 11am 9th Dec
* ICU figures from 6:30pm previous day

Cases, numbers in hospital and intensive care

Case numbers are less than a quarter of what they were in late October, but in recent weeks have not been decreasing as rapidly. The number of people in hospital is decreasing slowly, numbers in ICU and deaths per day are not decreasing.

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	16 Apr	24 Jun	29 Jul	26 Aug	30 Sept	21 Oct	11 Nov	18 Nov	25 Nov	2 Dec	9 Dec
Cases confirmed per day	547	10	18	117	356	1160	403	412	303	273	269
14-day incidence *per 100,000 population*	157	4.0	5.6	32	92	288	144	120	105	85	80
Hospital in-patients	858	42	11	22	108	279	288	270	284	244	228
Hospital admissions per day	*56*	*2*	*2*	*3*	*10*	*23*	*21*	*20*	*18*	*14*	*14*
ICU confirmed cases	147	15	5	6	18	32	39	34	33	32	31
ICU admissions per day	*8*	*< 1*	*< 1*	*< 1*	*2*	*3*	*3*	*2*	*2*	*2*	*3*
Deaths confirmed per day	32	< 1	< 1	< 1	1	5	5	6	6	7	4

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.

HSE Rialtas na hÉireann Government of Ireland

Cases, Incidence Rates & Testing

Confirmed cases each day

Daily and weekly count and 5-day rolling average – case counts have been decreasing since 21 October; the 5-day average peaked at 1186, and is now 286.

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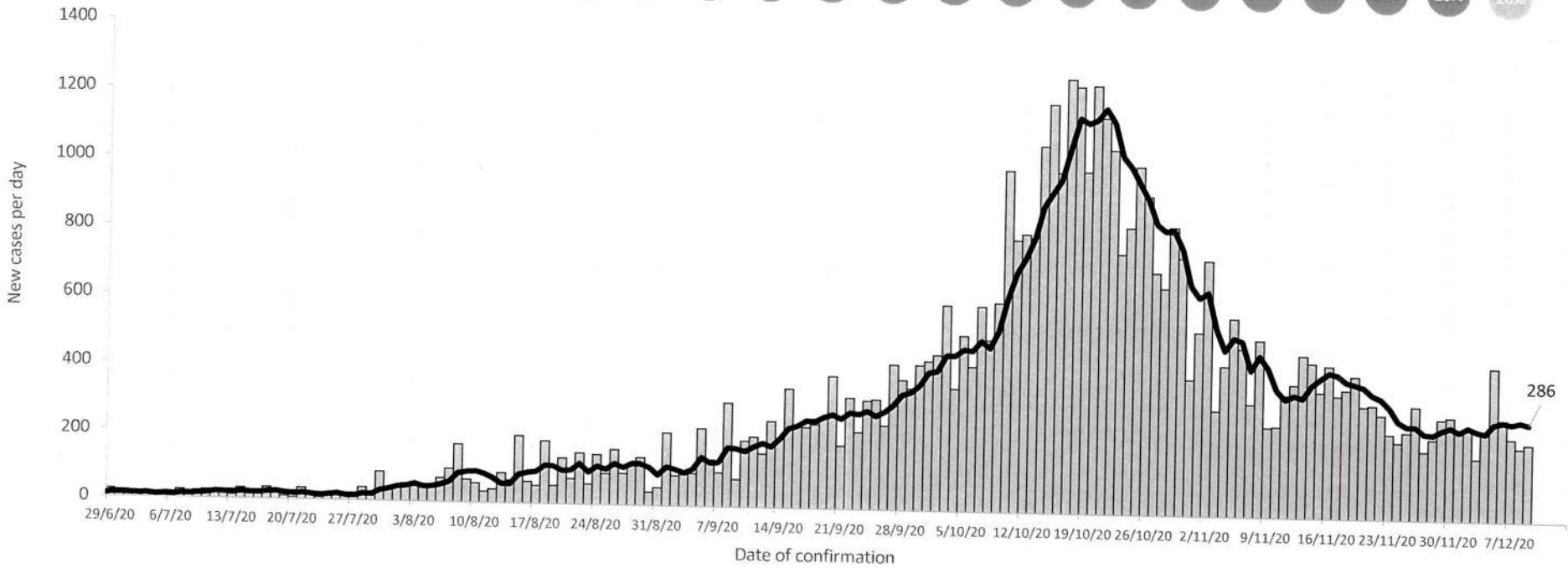
Cases confirmed each week	93	125	140	119	284	540	546	711	796	912	1303	1947	2060	3031	4458	7400	7090	4843	3426	2584	2575	1800	2036
Sporadic cases	36	37	65	36	52	44	141	124	149	176	290	345	376	506	862	1776	2385	1250	679	489	484	466	521
	39%	30%	46%	30%	18%	8%	26%	17%	19%	19%	22%	18%	18%	17%	19%	24%	34%	26%	20%	19%	19%	26%	26%



Daily count (bars) 5-day average (line) and weekly counts of the number of laboratory confirmed new cases by date on which they were confirmed by HPSC. Case counts may change due to denotification of cases. Sporadic cases are those cases not associated with outbreaks, nor close contacts of confirmed cases, nor acquired in the healthcare setting.

HSE

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Confirmed cases each day

Daily case count and 5-day rolling average for Dublin alone and for the other 25 counties. The 5-day average for Dublin has been high in recent days due to a large number of cases being reported on 5 December. The average number of cases per day across the 25 counties has bee almost constant since 26 November

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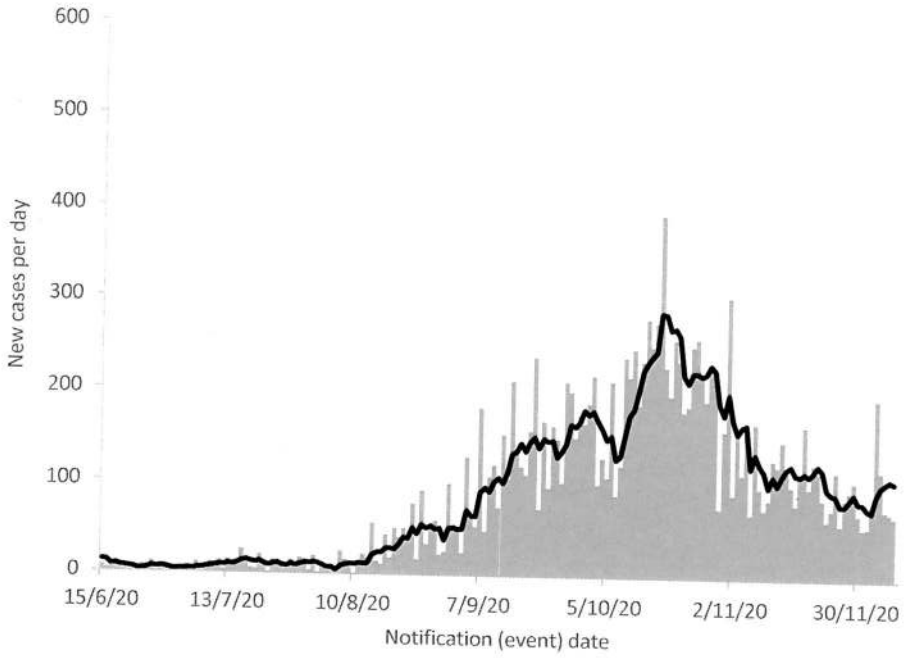
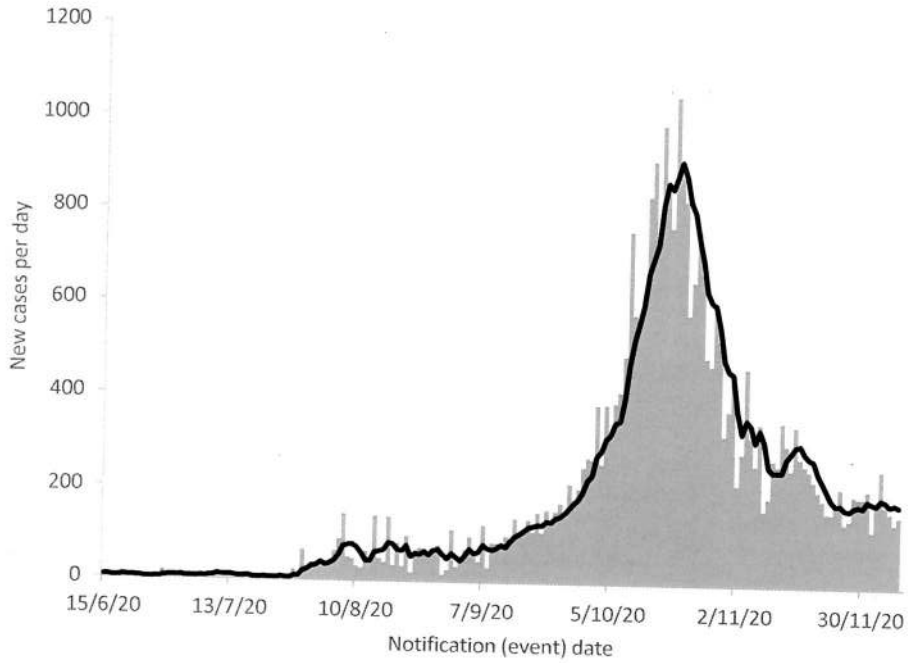
Dublin



25 counties



Daily count (bars) 5-day average (line) new cases by date on which they were notified to HPSC and created as an event on the CIDR database

HSE

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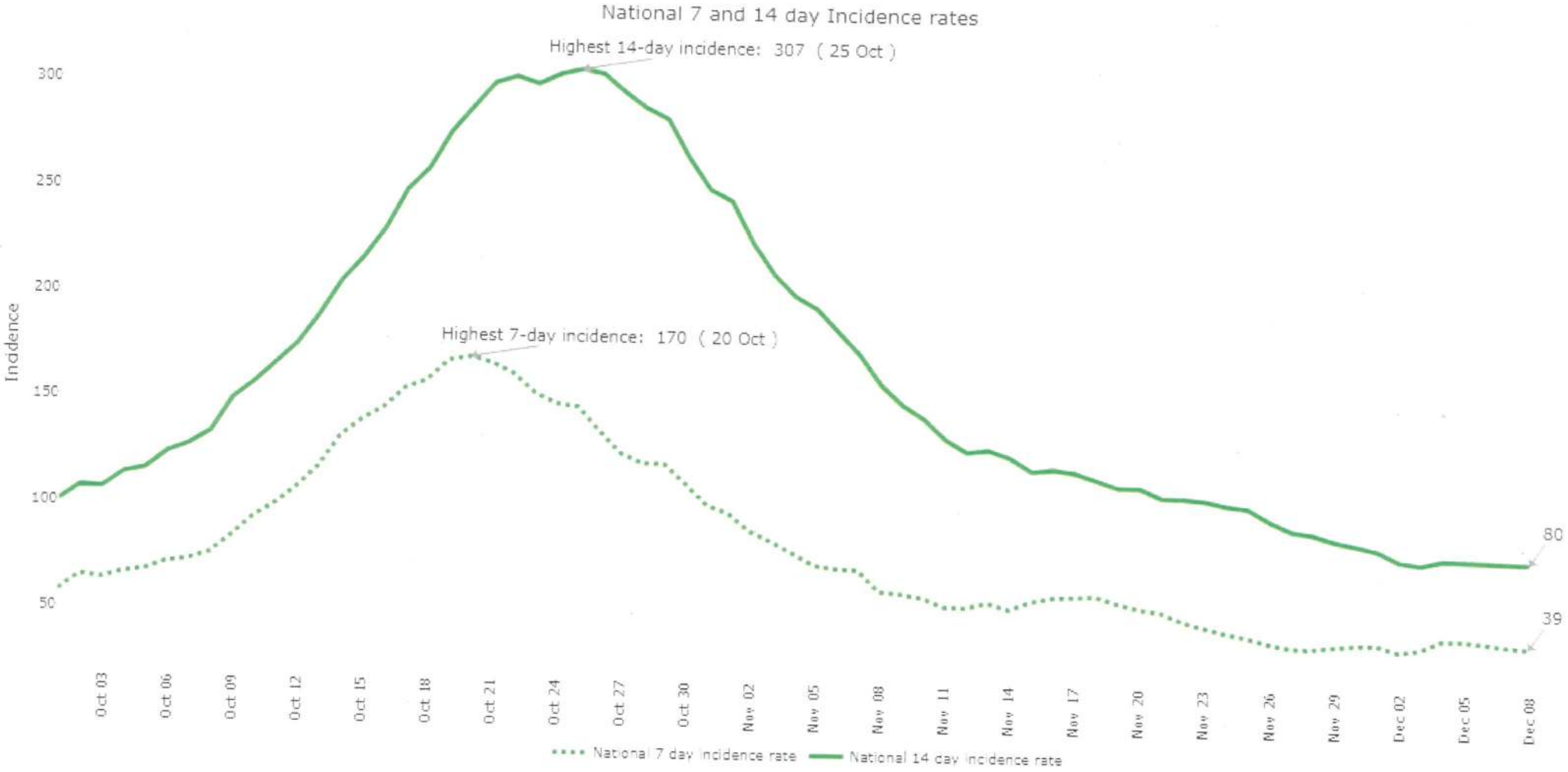
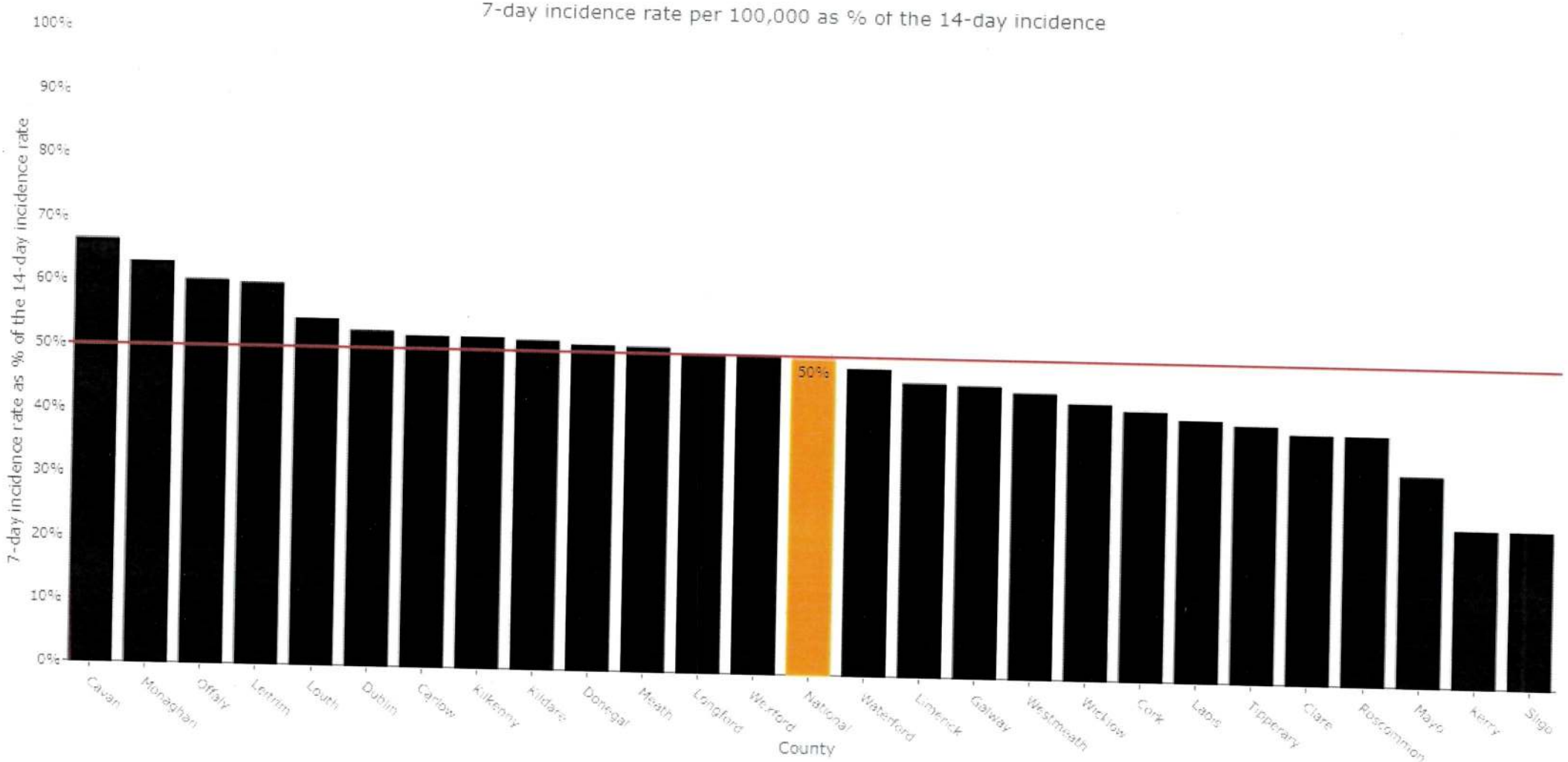


Source: HPSC CIDR Extract 09122020



Source: HPSC CIDR Extract 09122020

Total Tests

2,063,450

Total Positive

79,279

3.8%

Tests (24hrs)

12,203

Tests (Last 7 days)

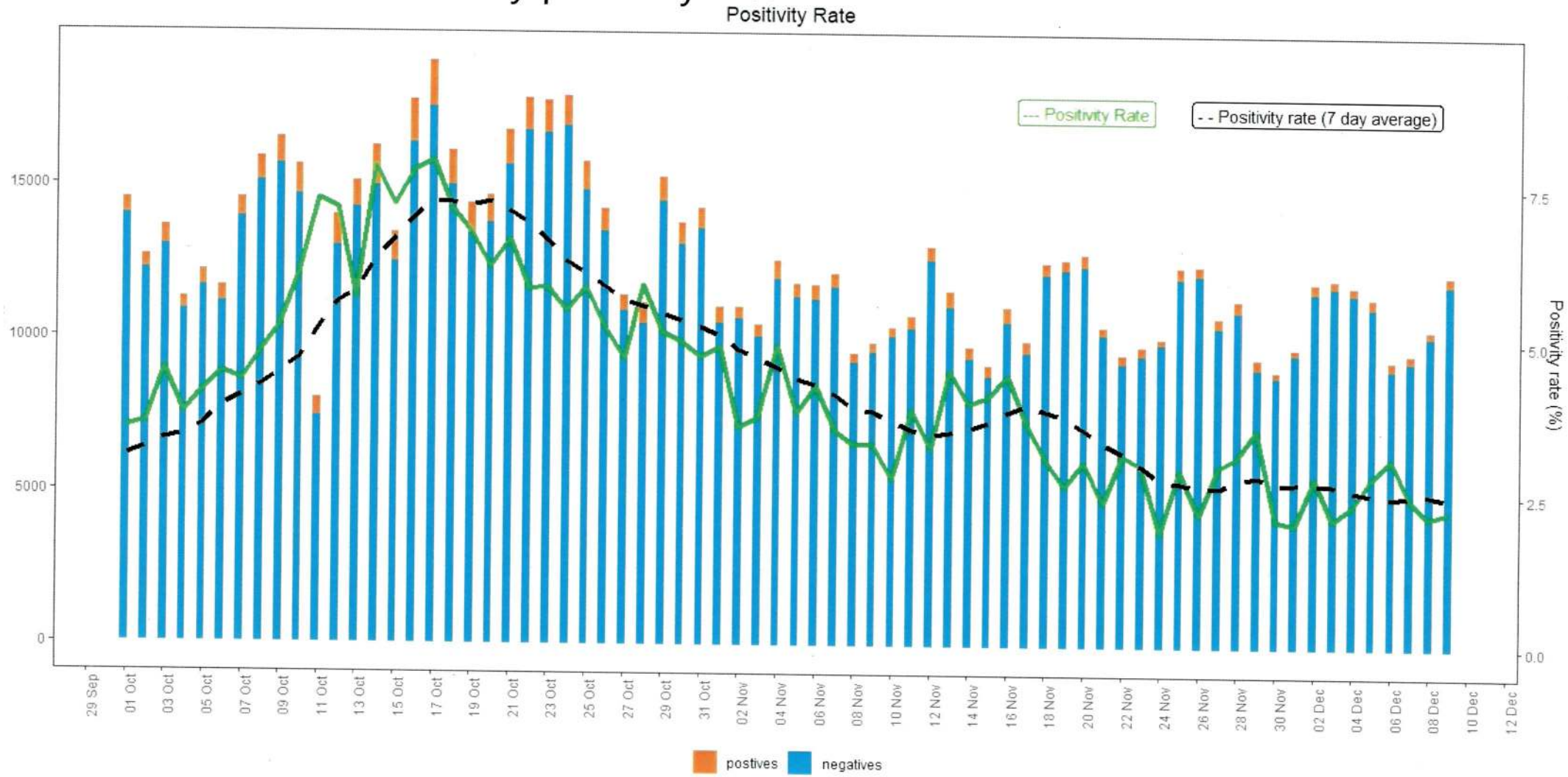
77,019

Positive (Last 7 days)

1,876

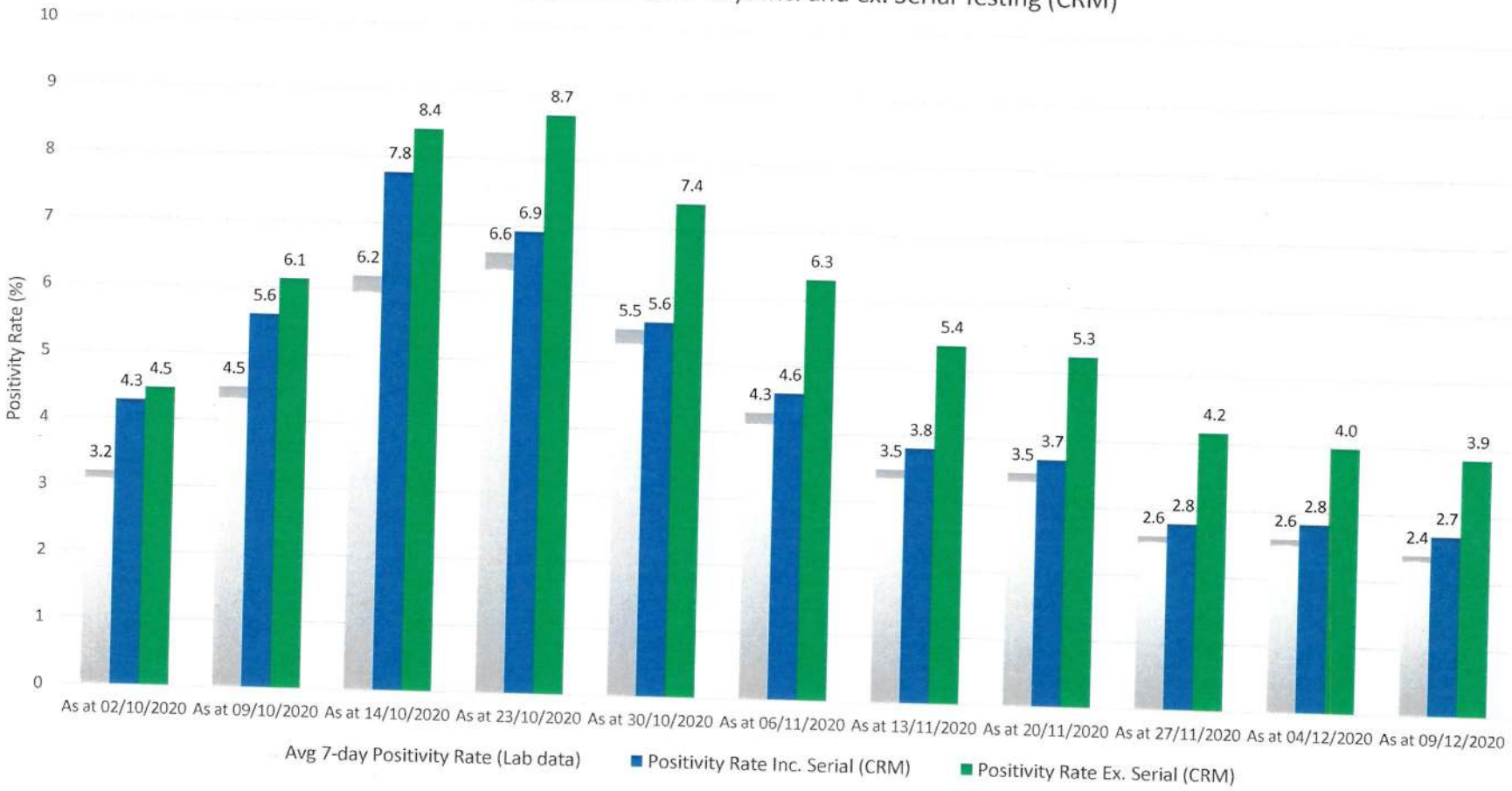
2.4%

Recent trends in laboratory positivity rate



Source: HPSC Cumulative Report on Lab Results, 09122020

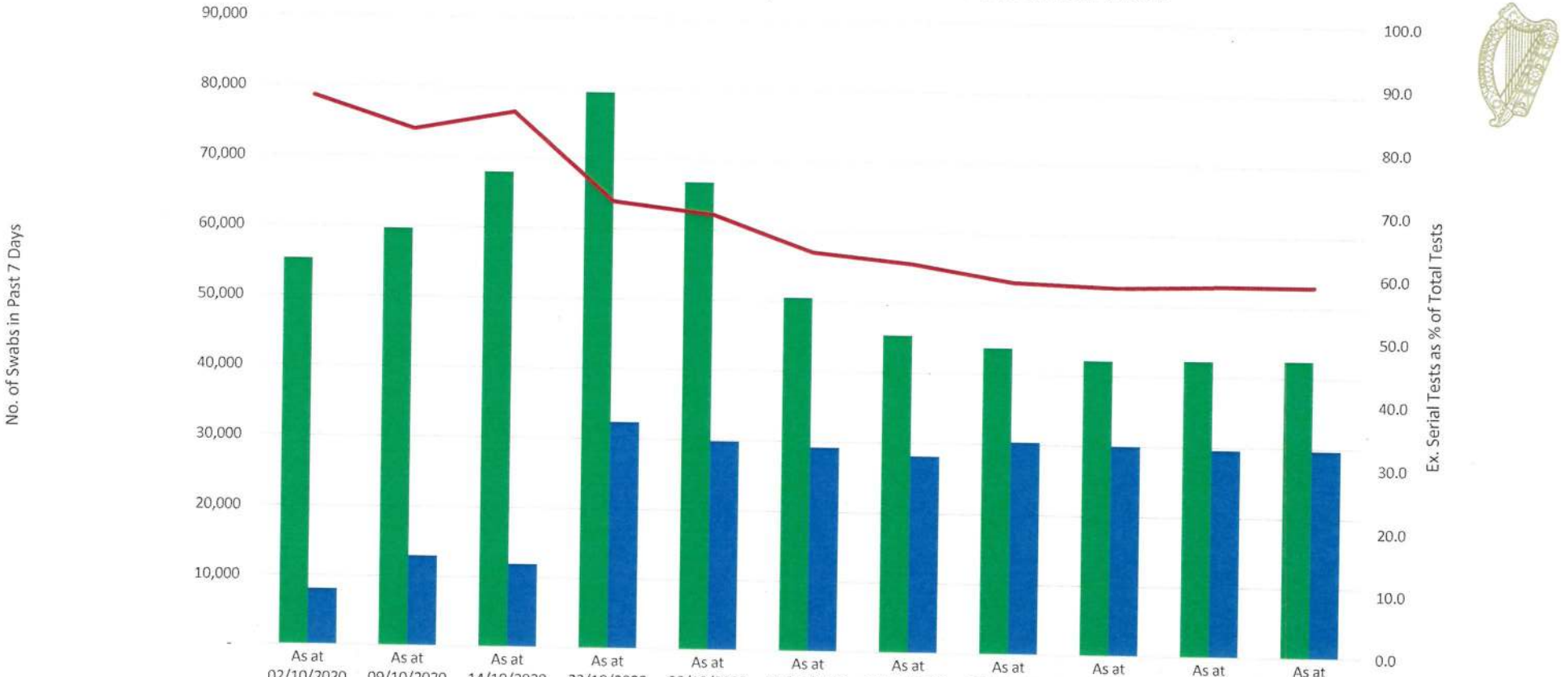
7-day Avg Positivity Rate (Lab data) and % Positivity Rate in Past 7 Days inc. and ex. Serial Testing (CRM)



Updated 09/12/2020
Source: Lab data, HPSC Daily Cumulative Report;
CRM data, HSE Contact and Tracing Team.

Up to 23/10/20200 tests which could not be linked to a County (Not Mapped) are not included in the data for total tests.

No. of Non-Serial and Serial Swabs in Past 7 Days and Non-Serial as a % of Total Swabs

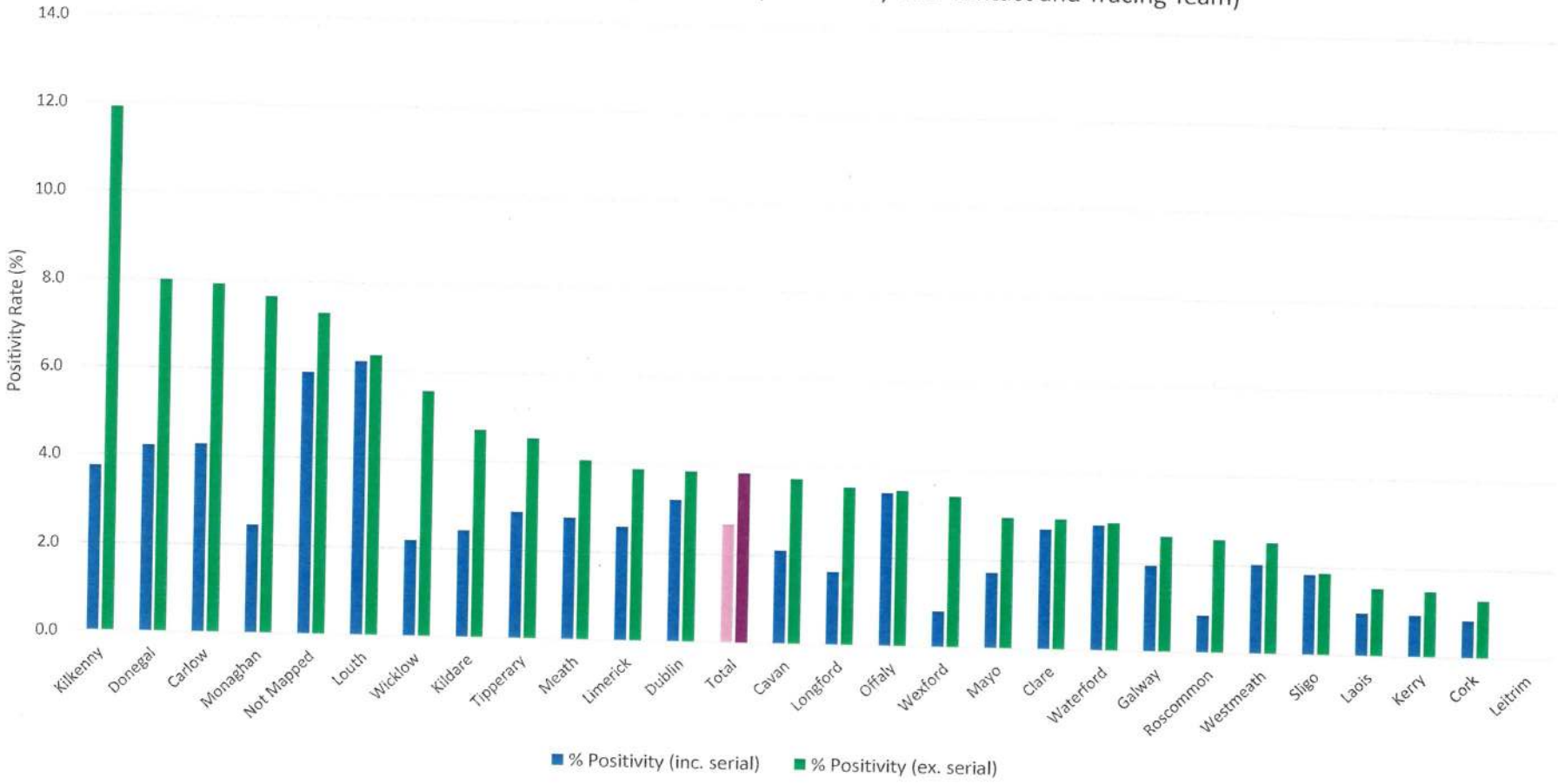


	As at 02/10/2020	As at 09/10/2020	As at 14/10/2020	As at 23/10/2020	As at 30/10/2020	As at 06/11/2020	As at 13/11/2020	As at 20/11/2020	As at 27/11/2020	As at 04/12/2020	As at 09/12/2020
Non-Serial Swabs	55,256	59,684	67,895	79,412	66,804	50,512	45,314	43,724	42,098	42,267	42,421
Serial Swabs	8,065	12,982	11,977	32,407	29,861	29,219	28,133	30,386	30,017	29,636	29,683
Non-Serial as % of Total Swabs	87.3	82.1	85.0	71.0	69.1	63.4	61.7	59.0	58.4	58.8	58.8

Updated 09/12/2020
Source: HSE Contact and Tracing Team.

Up to 23/10/20200 tests which could not be linked to a County (Not Mapped) are not included in the data for total tests.

% Positivity Rate Past 7 Days (inc./ex. serial testing) by County as at 09/12/20
(data from County Positivity Rate data provided by HSE Contact and Tracing Team)



Location is based on location of Community Test Centre or Acute Hospital and not on patient's address

Updated as at 09/12/2020

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. There has been a very significant decrease in incidence in younger adults in recent weeks. While incidence in the 65-84 age group has decreased from the peak, it remains high in the 85+ age group.

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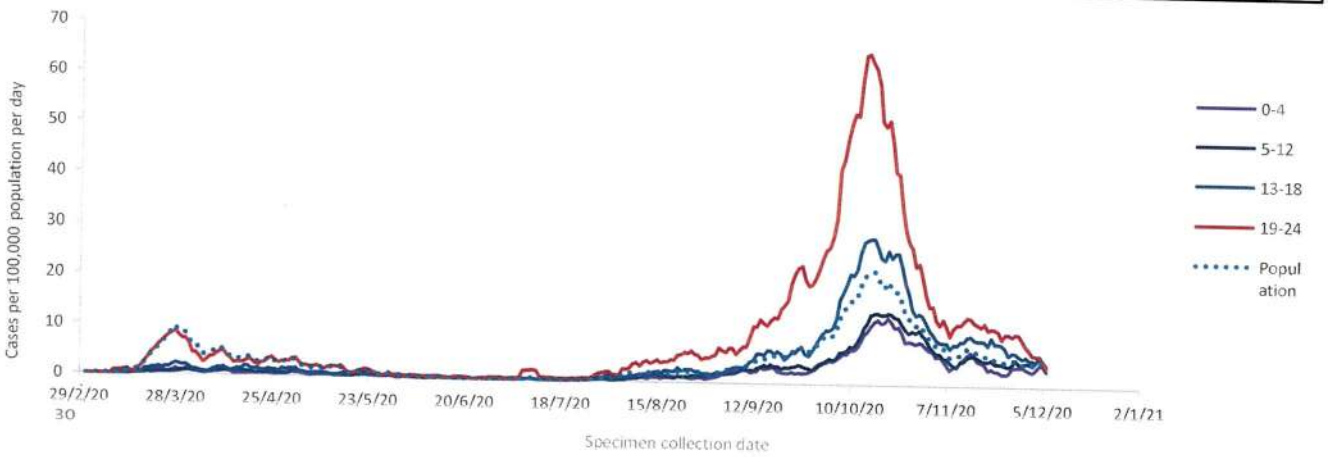
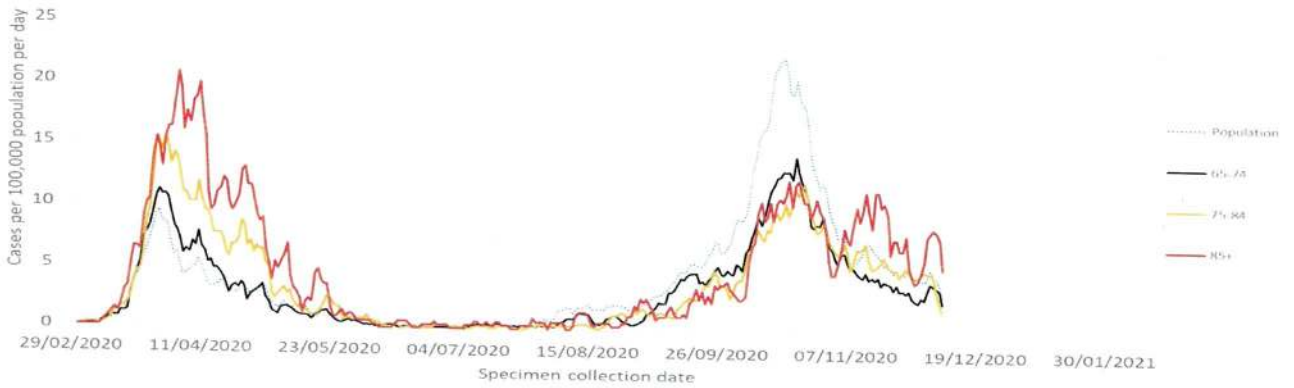
Heat map of 7-day incidence by age

Week	Age band								
	0-4	5-12	13-18	19-24	25-39	40-64	65-74	75-84	85+
25	0.0	0.4	0.5	1.8	1.4	1.0	0.8	0.5	1.5
26	0.6	0.2	0.3	1.8	1.5	0.7	0.8	1.5	3.0
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	34.9	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	67.9	57.9	34.3	26.0	19.2
41	44.0	47.2	135.4	324.6	116.7	91.7	62.1	52.4	53.3
42	78.1	90.9	196.7	432.1	155.4	142.9	91.8	67.7	57.7
43	82.7	93.5	176.0	306.5	123.0	121.9	85.1	82.9	69.6
44	54.0	67.3	93.9	153.7	74.4	76.5	54.6	54.5	45.9
45	34.4	39.7	58.4	84.2	58.3	46.2	43.1	44.3	41.4
46	41.9	37.2	65.4	90.0	45.5	45.4	32.7	43.3	57.7
47	22.0	34.1	59.2	79.4	34.9	33.4	28.9	39.7	54.8
48	23.2	31.3	45.5	66.7	34.0	29.9	22.8	36.6	34.0
49	28.7	36.5	37.4	40.5	33.3	29.8	25.7	30.5	42.9





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 hat the analysis reflects the pattern of cases in the community. Cases dated by date of specimen collection.

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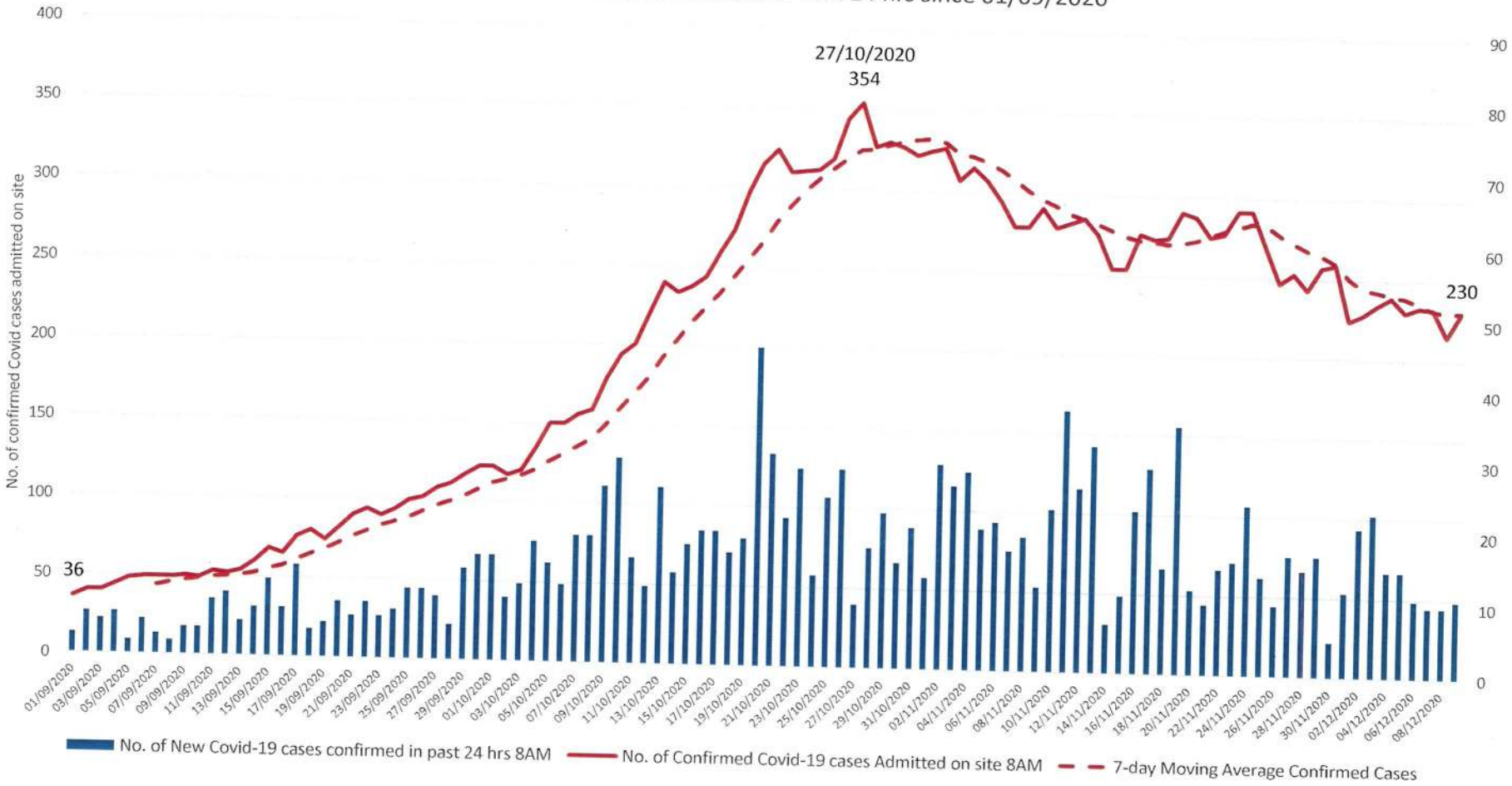
Hospital & ICU Data

Total No. of Confirmed Covid Cases in Hospital at 8AM & No. of New Confirmed Covid Cases in Past 24 hrs since 01/09/2020

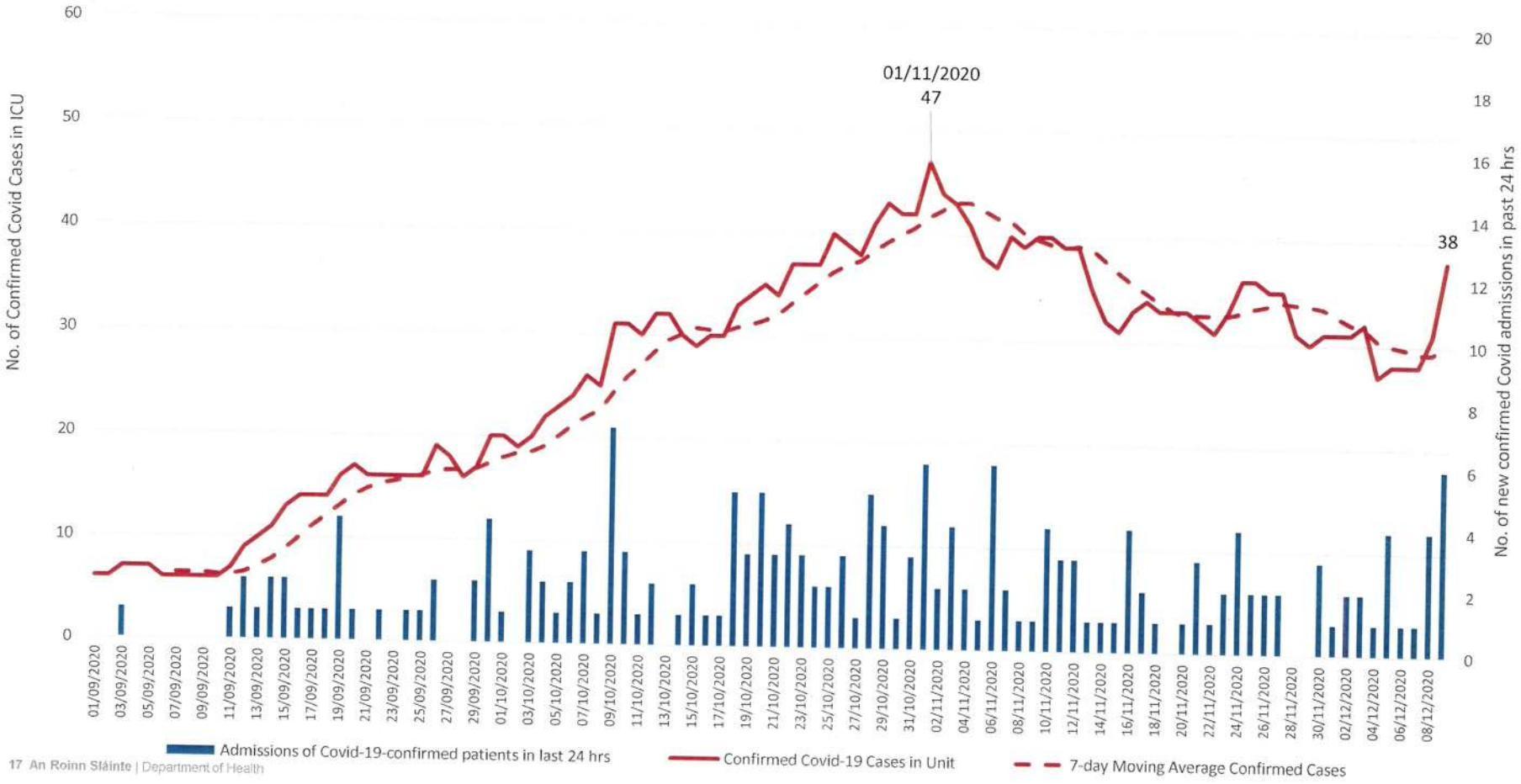


Updated to 8AM 09/12/2020

Confirmed Covid cases: Daily count of number of COVID-19 confirmed cases in acute hospitals.
New confirmed cases: New COVID-19 confirmed admissions and new laboratory confirmations of suspected cases in preceding 24 hours.
Data from HSE PMIU-SDU, 8am census.

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

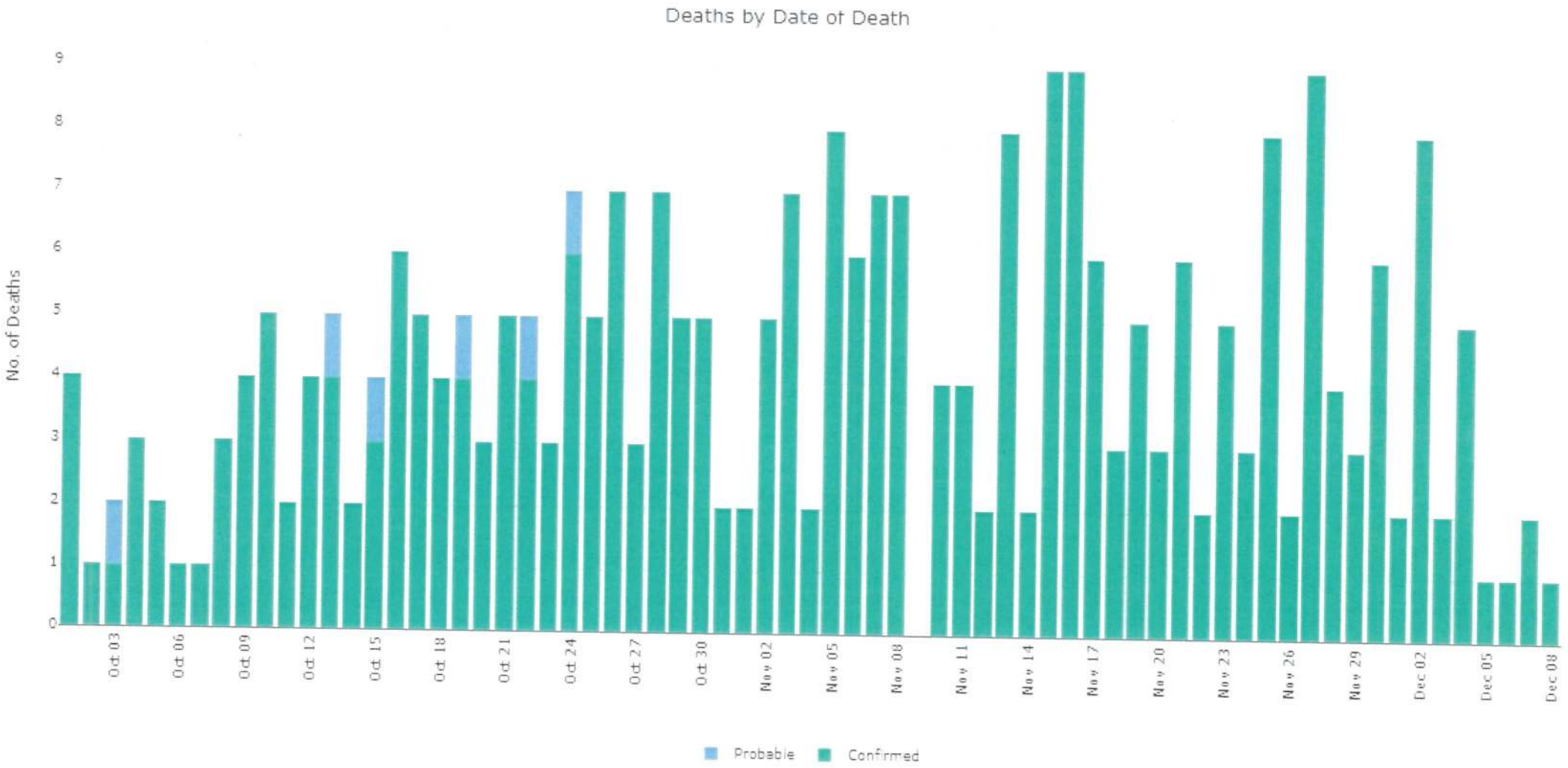
(includes all reporting public and private hospitals and may differ from no. reported by HSE in public hospital ICUs)



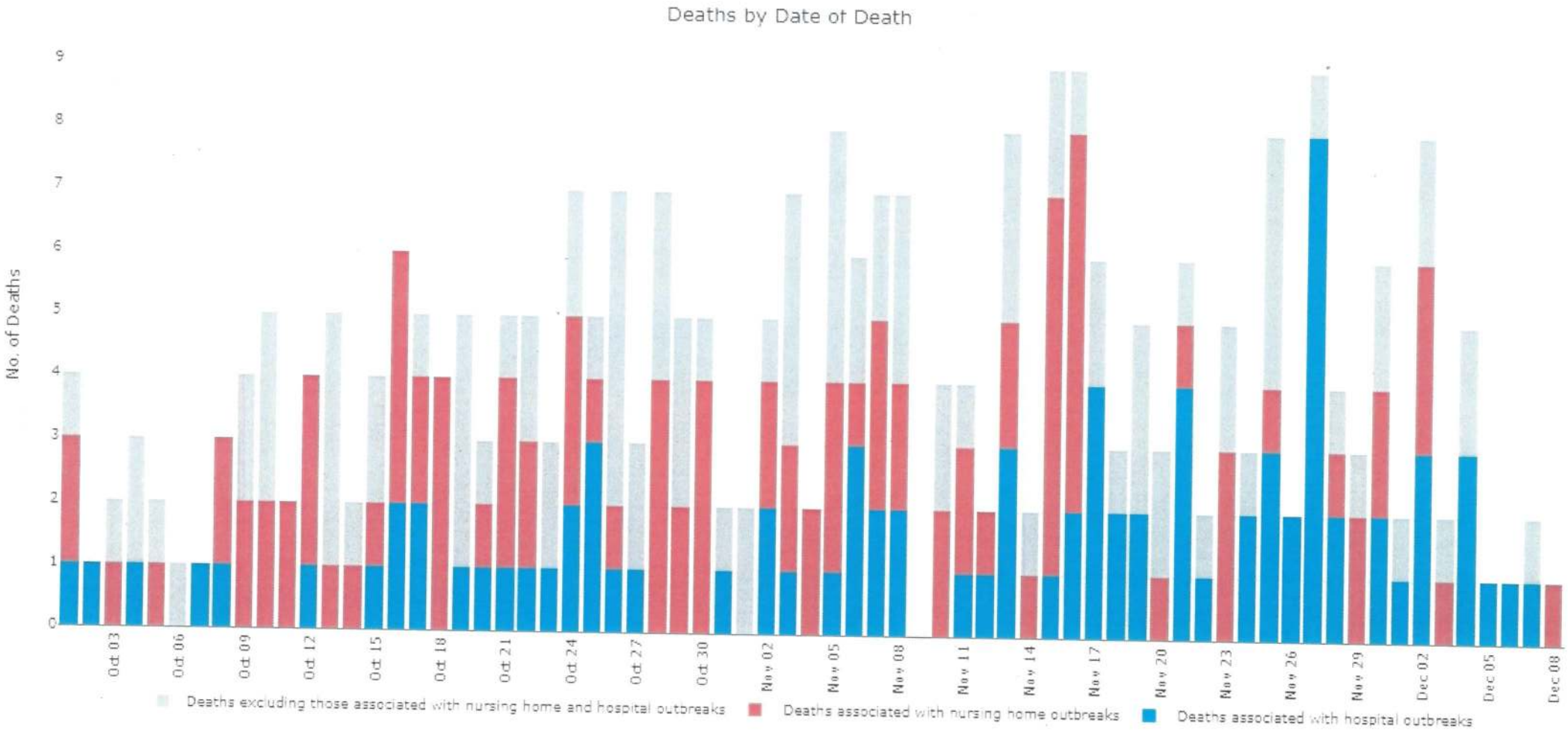
Updated to 11.30AM 09/12/2020

Confirmed Cases in ICU: Daily count of number of COVID-19 confirmed cases in public and private hospital ICUs.
New Covid admissions: New COVID-19 confirmed admissions to ICU and new laboratory confirmations of suspected cases in ICU.
Morning census from NOCA, ICU-BIS

Deaths



Source: HPSC CIDR Extract 09122020



Source: HPSC CIDR Extract 09122020

Outbreaks & Clusters

COVID-19 outbreaks by key outbreak locations, week 49 and overall, 2020 Ireland

- Since March 1st 2020, 9,746 outbreaks have been notified to CIDR
- In week 49, 352 outbreaks were notified; 288 in private houses, 64 in other locations

Key outbreak locations	Week 49	Weeks 10-49
Workplace	8	319
Direct Provision Centre	1	36
Vulnerable groups*	1	108
Prisons	0	9
Nursing Home/Community Hospital	5	395
Acute hospitals	7	194
School^	14	227
Childcare facility	5	89

*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 December 8th 2020 – data to midnight 05/12/2020

Weekly Summary

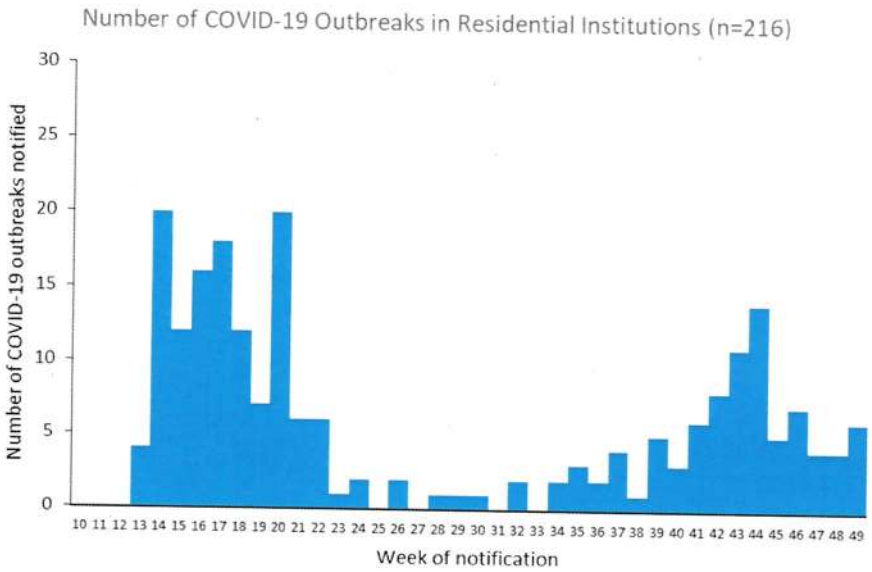
- **Total** number of outbreaks week 49 n=352 compared with week 48 n=348
- **Vulnerable groups**
  - Irish Traveller outbreaks (since 20/09/2020)
    - 68 outbreaks 10 with >20 cases
    - 1218 cases in Irish Travellers
  - One new outbreak in a DPC
- **Workplace outbreaks**
  - One new outbreak in food production sector
- **Residential institution outbreaks**
  - 216 outbreaks in residential institutions with 1,325 linked cases
  - 24 outbreaks are 'open' with 154 linked cases
  - Six outbreaks have been notified since last week's report, with 23 linked cases
- **Nursing Homes & Community Hospitals**
  - 37/396 outbreaks remain open with 942 linked cases
  - 4 new outbreaks with 18 linked cases since last week's report
  - Five largest 'open' outbreaks have between 62 and 86 linked cases
  - Since August 1st, 114 deaths have occurred in cases linked to NH/CH outbreaks
- **Acute hospitals**
  - 50 open outbreaks involving 19 hospitals, 915 linked cases (range 1-138)
  - Nine new outbreaks since last week's report with 32 linked cases
  - Since August 1st, 86 deaths have occurred in cases linked to acute hospitals outbreaks
- **Schools**
  - 14 new outbreaks since last week's report with 36 linked cases
  - 10 outbreaks ≥ 2 linked cases (range 2-11)
- **Childcare facilities**
  - Four new outbreaks since last week's report with 20 linked cases (range 2-13)
- **Third level institutions**
  - 87 outbreaks since 01/09/2020 – 962 linked cases
  - Three new outbreaks week 49 – 9 linked cases

All data in this slide-set is CIDR data to midnight 07/12/2020 unless otherwise stated

Focus on 37 'OPEN' Nursing Homes and Community Hospital/Long Stay Units: August 1st to midnight December 7th 2020

- 942 associated cases (372 HCW/staff cases, 457 client cases, 113 cases HCW status unknown)
- 7 outbreaks include only HCW/staff cases, 27 include both HCW/staff cases and client cases, one outbreak includes client cases only, and for 2 outbreaks the mix of cases is unclear
- 4 new outbreaks since last week's report – 18 linked cases
- 13 previously notified 'open' outbreaks – 111 additional cases since last week's report
- 20 previously notified 'open' outbreaks – no additional cases since last week's report
- 0-86 linked cases per 'open' outbreak – the five largest 'open' outbreaks have 62, ,63, 72, 82 and 86 cases respectively

Residential Institution outbreaks to midnight 7th December 2020 (n=216)



Overview

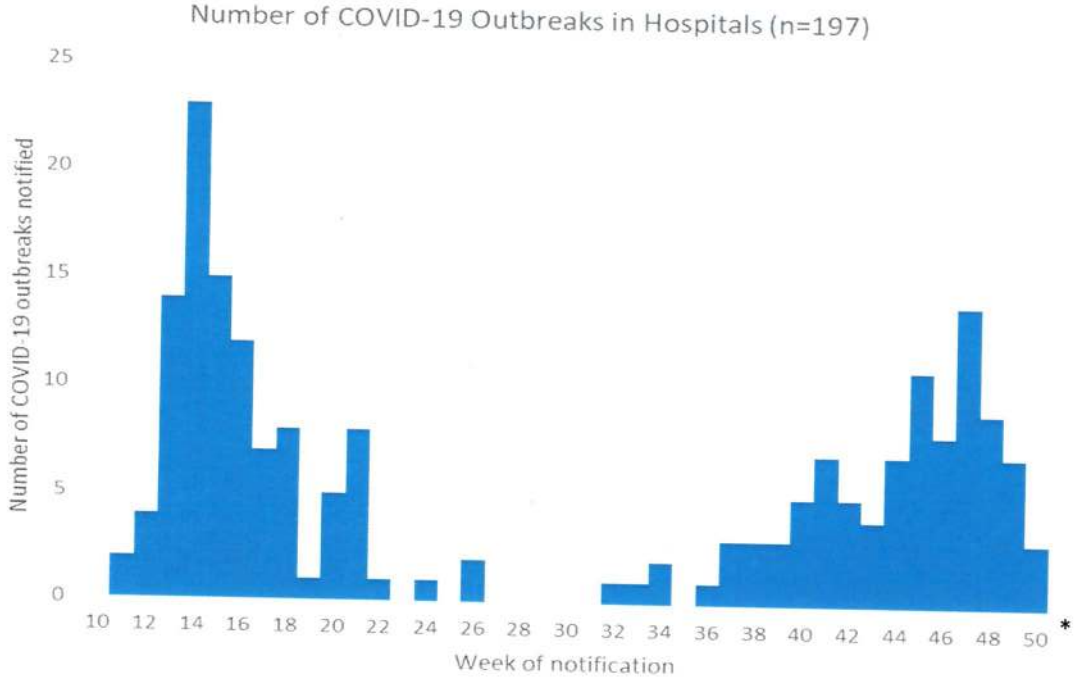
- 216 outbreaks in residential institutions with 1,325 linked confirmed cases
- 24 outbreaks remain open with 154 linked confirmed cases

Update

- 6 residential facility outbreaks were notified since last report
- 23 confirmed cases were linked to these outbreaks

Data source: CIDR December 8th 2020
Data to midnight 07/12/2020

Acute Hospital outbreaks to midnight 7th December 2020 (n=197)



Outbreak status	Number of outbreaks	Confirmed linked cases	Number admitted to ICU	Number Died	Number HCWs
All	197	2,380	54	189	1,314
Open	50	915	13	57	448

Overview

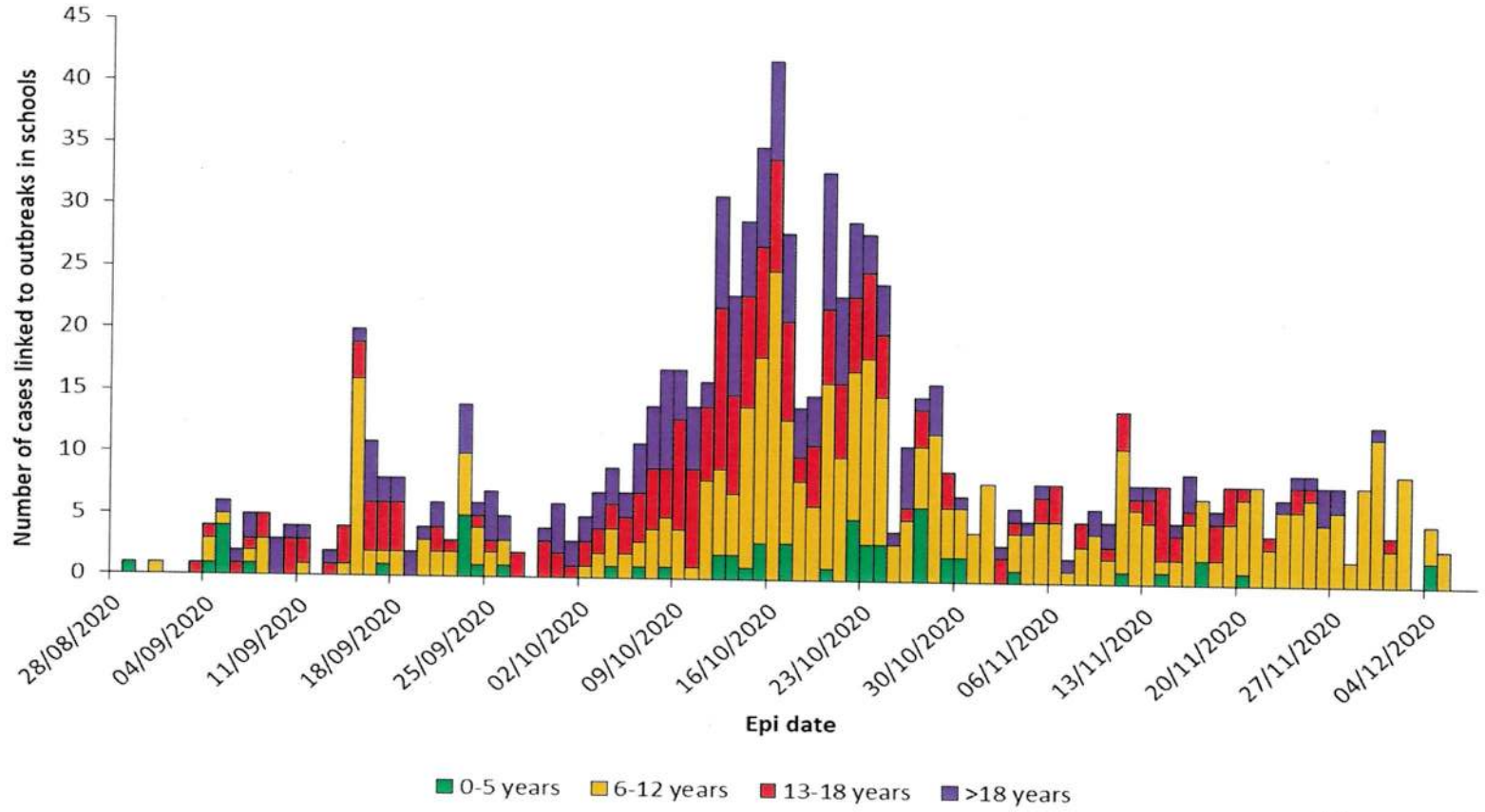
- **197** outbreaks in acute hospitals
- **50** 'open' acute hospital outbreaks (all occurring since 1st September 2020)
- 915 confirmed cases linked to 45 of the open outbreaks (range 1-138)
- The 50 open outbreaks correspond to outbreaks in **19** Acute Hospitals

Update

- 9 new outbreaks since reporting on 01/12/2020
- 32 confirmed cases linked to 6 of these outbreaks (range 1-9)
- 98 events were linked to 9 previously reported open hospital outbreaks
- 16 outbreaks were closed

Data source: CIDR December 8th 2020
*Data to midnight 07/12/2020

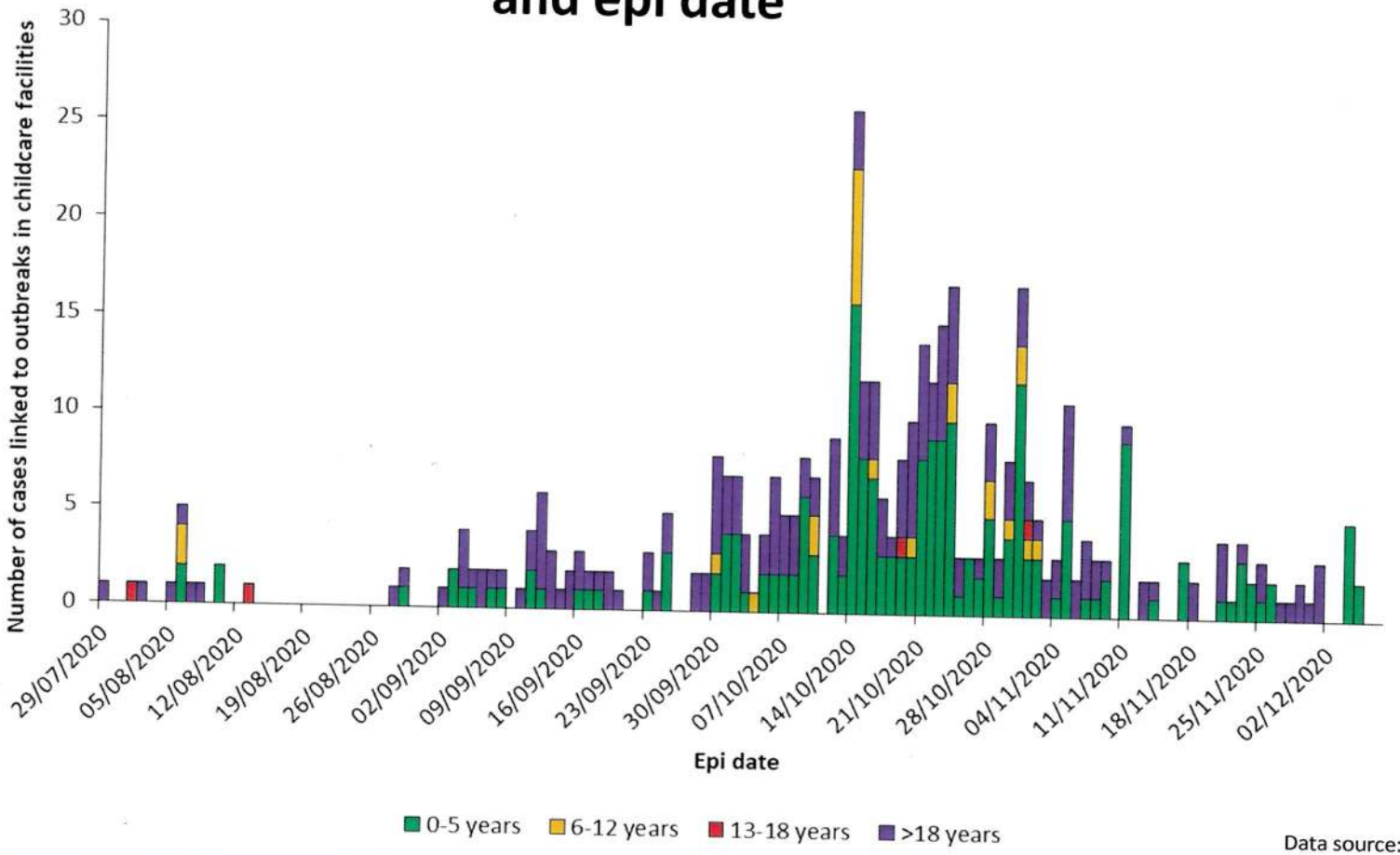
Epidemic curve of cases linked to outbreaks associated with school children and staff to midnight 7th December 2020 (n=922*) by age group and epi date



Excludes cases with epi dates prior to March 2020 (n=1)

Data source: CIDR December 8th 2020
*Data to midnight 07/12/2020

Epidemic curve of cases linked to outbreaks associated with childcare facility outbreaks to midnight 7th December 2020 (n=421) by age group and epi date



Data source: CIDR December 8th 2020
*Data to midnight 07/12/2020

Cases by mode of transmission

The proportion of all cases by mode of transmission

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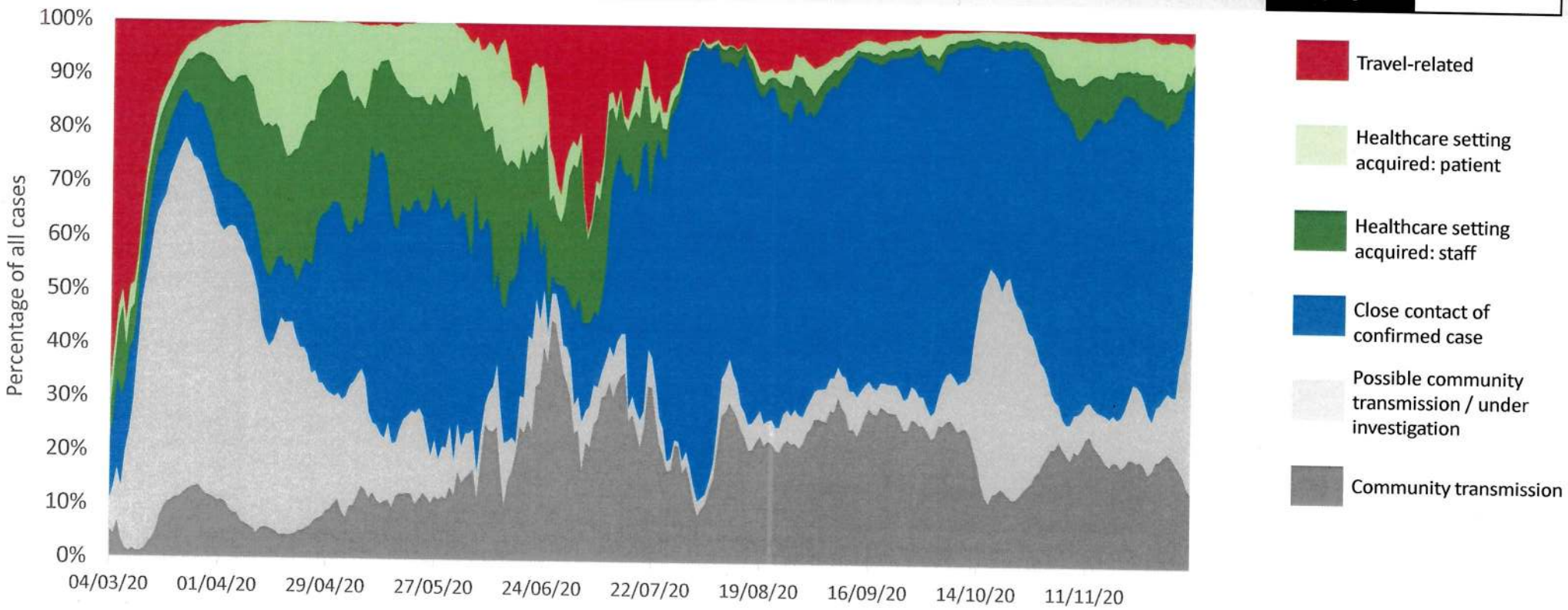

The proportion of all cases by mode of transmission. 5 day rolling average, cases dated by specimen collection date. A significant proportion of recent cases that are identified as possible community transmission will, on further investigation, be reclassified.

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Where are cases arising?

We have seen an increasing number of infections in healthcare workers in recent weeks, with approximately 13% of cases over the last 14 days being HCW. The majority of these HCW (~80%) are in settings other than LTRC

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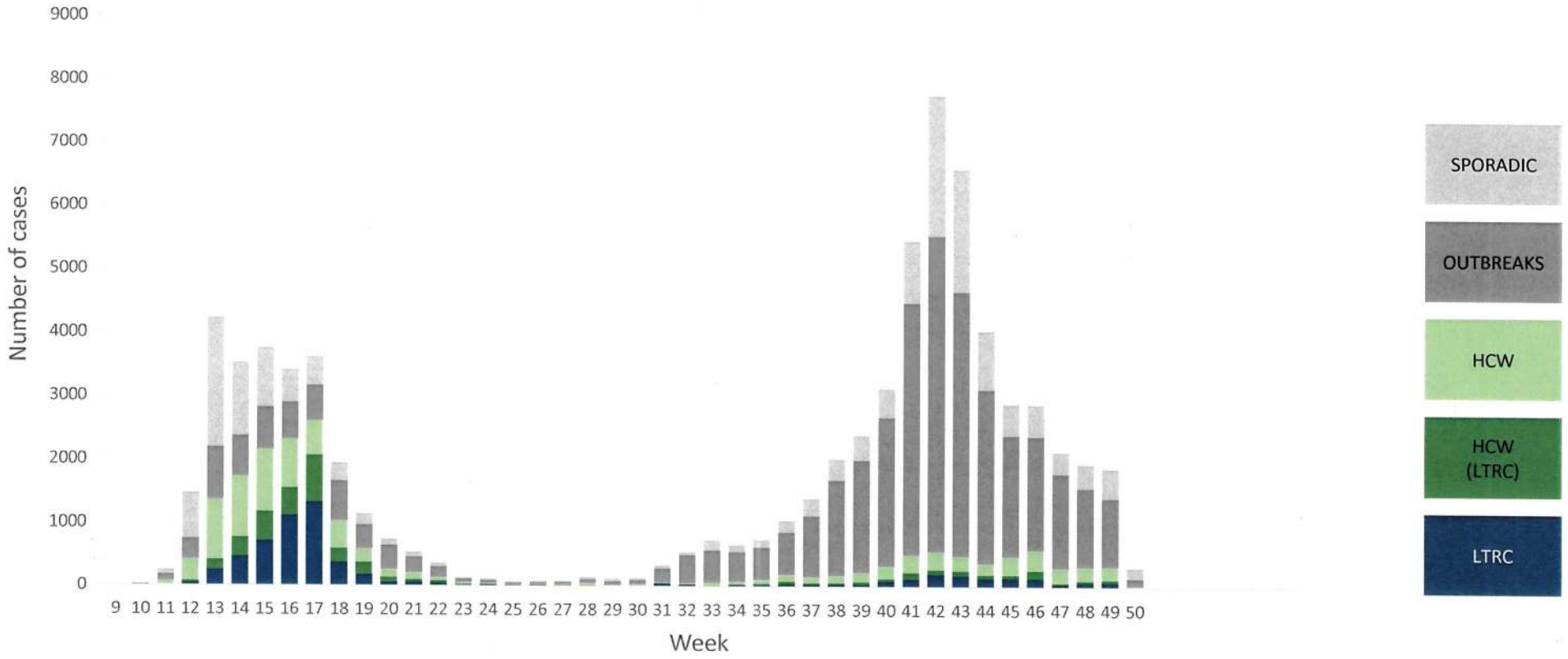

Weekly total cases by setting. LTRC: residents of long-term residential care. HCW (LTRC): Healthcare workers associated with outbreaks in long-term residential care. HCW: healthcare workers in other settings. Outbreaks: all other outbreaks. Sporadic: cases not associated with outbreaks or healthcare work. Date of specimen collection

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Infections in the healthcare setting

We have seen an increasing number of infections acquired in the healthcare setting in recent weeks.

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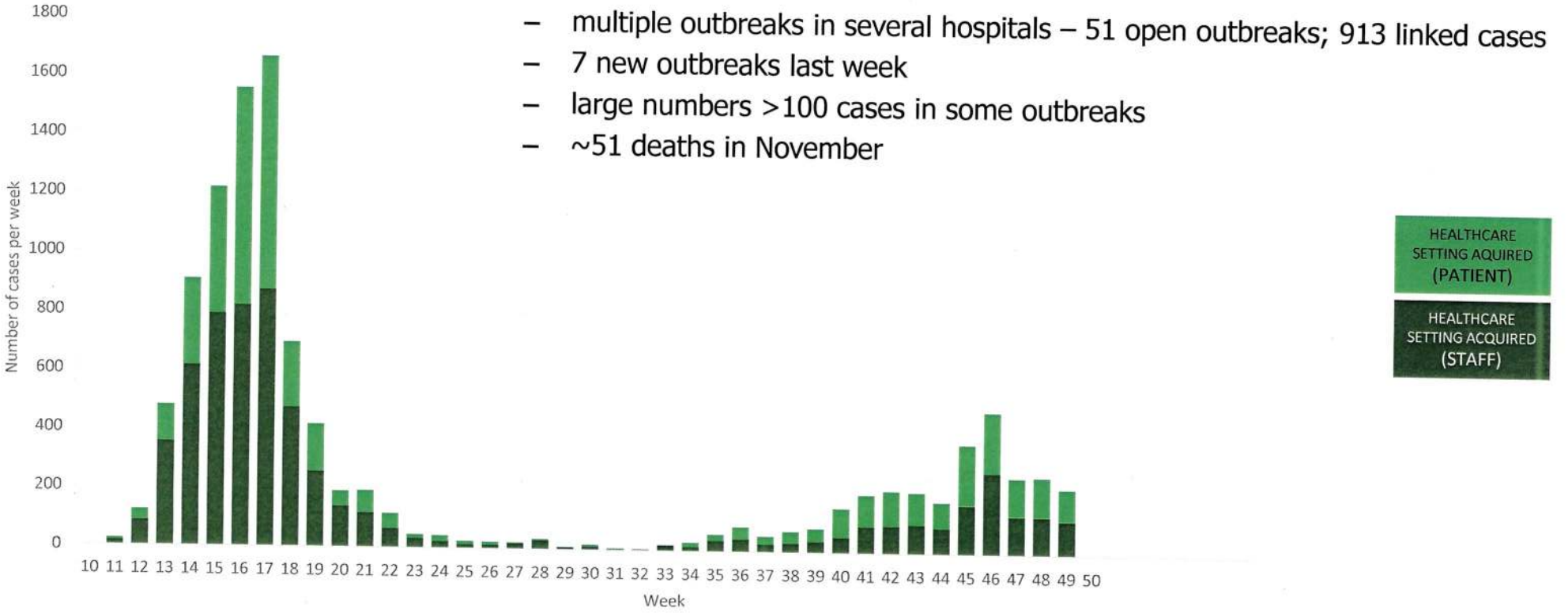
Acute hospitals continue to be of concern

- multiple outbreaks in several hospitals – 51 open outbreaks; 913 linked cases
- 7 new outbreaks last week
- large numbers >100 cases in some outbreaks
- ~51 deaths in November



Weekly total number of cases recorded in CIDR as 'healthcare setting acquired' Cases dated by date of specimen collection

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Cases in long-term residential settings

The number of cases in LTRC was less in the second wave compared to the first; nonetheless, the very high levels of infection in the wider community led to 200-300 cases per week associated with outbreaks in LTRC in weeks 41-46. The incidence has been lower in recent weeks.

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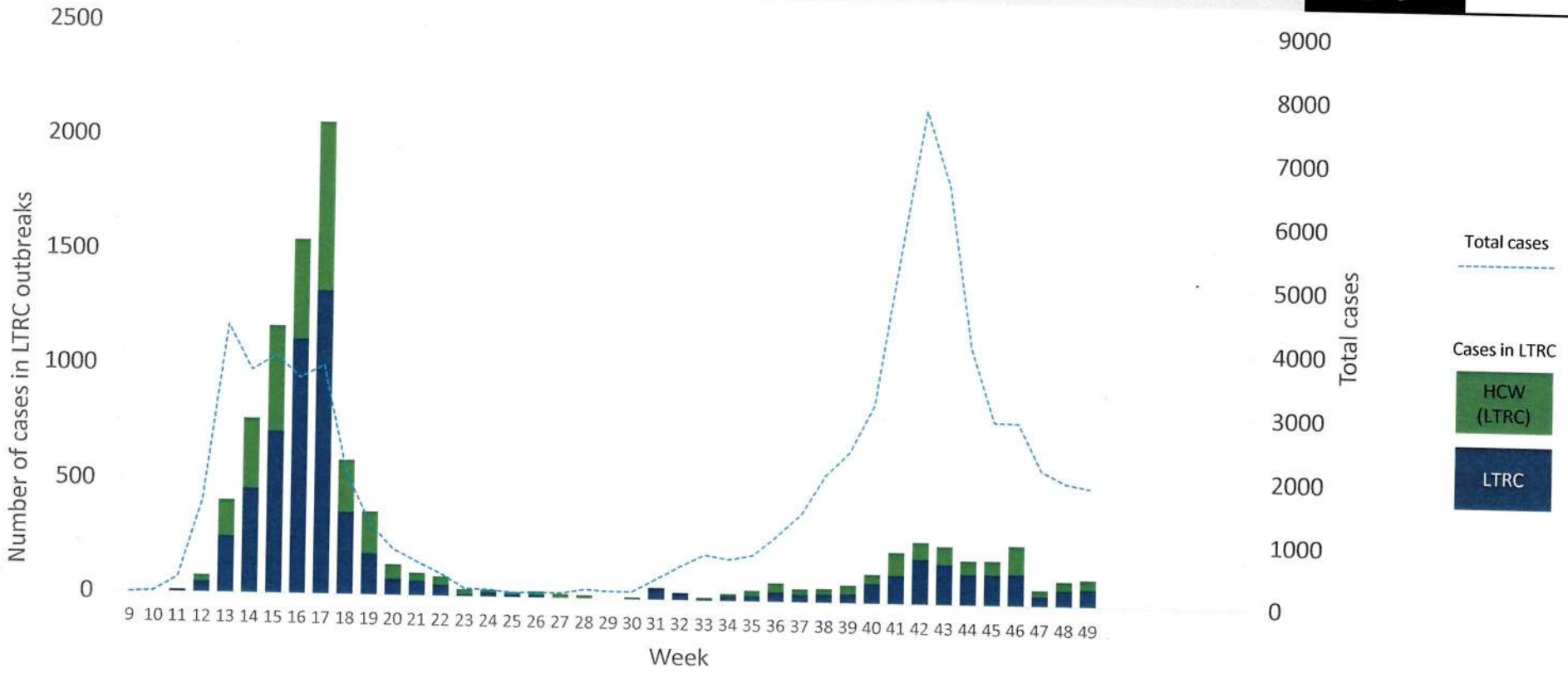

Weekly cases by setting. LTRC: cases amongst residents of long-term residential settings where outbreaks have occurred.
HCW (LTRC): Cases in healthcare workers associated with outbreaks in LTRC.

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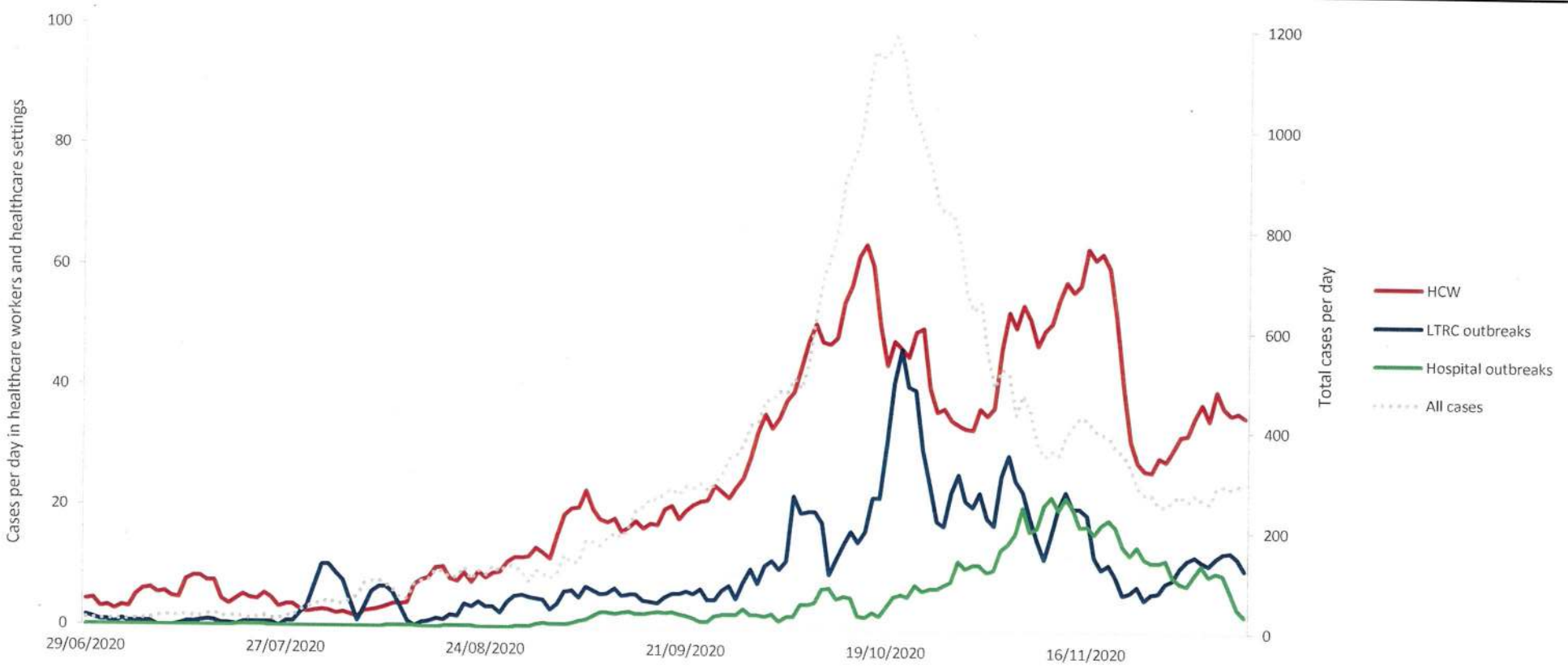
Persistence in healthcare workers and settings

While overall incidence decreased rapidly, there has been persistent and delayed incidence in healthcare workers and in LTRC, hospital and other healthcare outbreaks.

Coronavirus **COVID-19** Public Health Advice



HCW: cases identified as healthcare workers. LTRC outbreaks: cases associated with outbreaks in long-term residential care that are not HCW. Hospital outbreaks: cases associated with hospital and other healthcare outbreaks that are not HCW. Cases dated by event date.

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Persistence in healthcare workers and settings

Cases in healthcare workers and settings have increased from about 5% of cases to about 15% of cases – the 5 day moving average excluding these cases is 40-50 cases per day lower that the overall figure.

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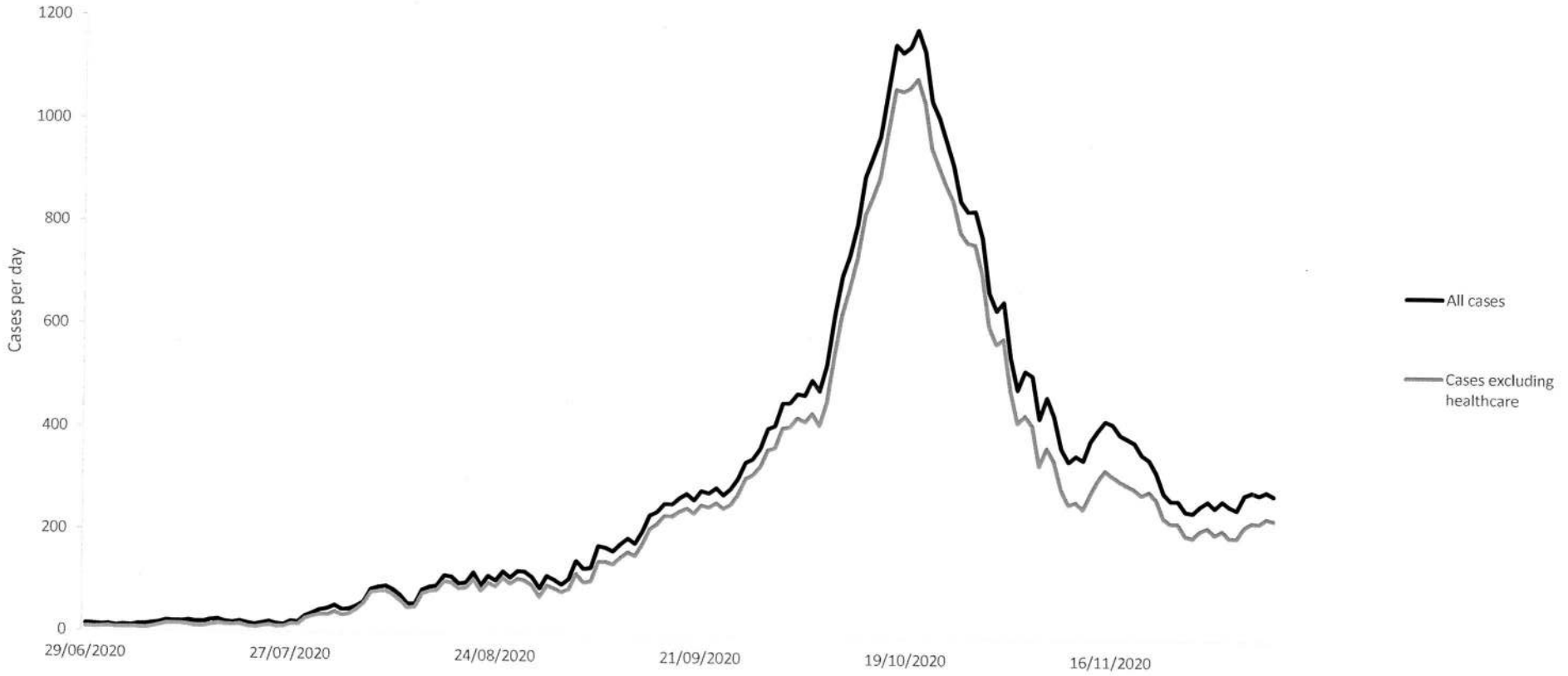

Cases excluding healthcare excludes healthcare workers, cases associated with outbreaks in long-term residential care and cases associated with hospital and other healthcare outbreaks. Cases dated by event date

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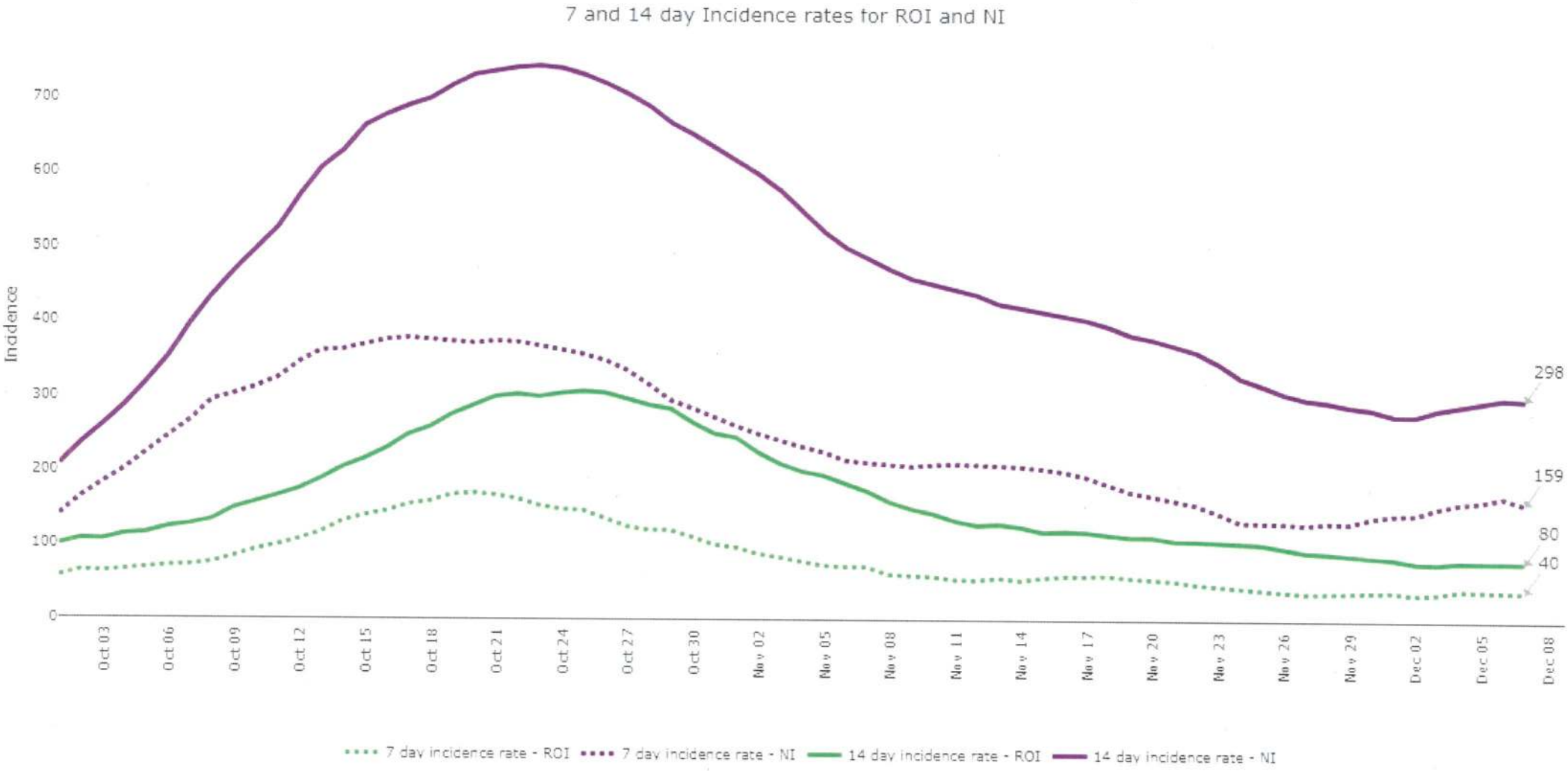
Age specific sentinel GP ILI consultation rates per 100,000 population by week and age specific thresholds

MEM Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary

Sentinel GP ILI consultation/100,000 pop.	Week of consultation												
	37	38	39	40	41	42	43	44	45	46	47	48	49
All Ages	31.0	40.5	35.2	23.2	35.2	33.1	37.1	16.5	17.7	16.4	19.4	21.1	24.8
<15 yrs	68.0	77.0	52.3	18.6	25.8	27.8	31.8	10.0	16.1	24.7	19.4	29.3	27.1
15-64 yrs	21.4	34.3	31.9	25.2	42.2	37.1	40.5	18.8	19.0	13.3	20.5	20.1	24.5
≥65 yrs	19.3	13.5	24.5	20.5	16.3	22.0	29.1	15.7	14.1	18.2	13.9	13.6	22.8
Number of reporting practices (N=58)	54	55	51	51	55	55	56	57	54	58	55	55	55

Note: Moving Epidemic Method (MEM) threshold levels are colour coded – the MEM method is recommended internationally and by ECDC to establish thresholds for influenza-like illness (ILI)/influenza



Source: HPSC CIDR Extract 09122020 and health-ni.gov.uk daily data 08/12/20

Test & Trace Update

Testing and contact tracing NPHET update

Testing

Over the past seven days, 1st – 7th December, there has been approximately 78,489 swabs taken for COVID-19 testing.

Of these:

- 34,793 (44%) of these were taken in the community
- 24,798 (32%) swabs were taken in acute settings.
- 18,898 (24%) 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 1st – 7th December, a total of 8,579 calls were made in the Contact Tracing Centres. Over the past seven days, the average number of close contacts per case was 3.5.

Additional activities ongoing in contact tracing include active surveillance calls daily or every second day in addition to daily active surveillance texts. Furthermore, the HSE is piloting Source Identification (Retrospective Tracing) with aim to implement this fully by mid-December.

Source: HSE

Turnaround Times (1st – 7th December)

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 **1.7 days.**
- The median turnaround time for time, from referral to communication of a **detected result** by SMS, in community settings was **1.8 days.**
- The median end-to-end turnaround time, from referral to the end of contact tracing, for **detected cases** in the community setting was **2.1 days.**

Overall Swab to laboratory result communicated – Medians: 26 hours in Acute , 29 hours in Serial Testing, 28 hours in Community

Referral to appointment

In the community, the median time from referral to appointment was 0.2 days.

91% 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 1st – 7th December was 0.8 days, the average is 1.1 days

Source: HSE

CMP close contact update (30/11-6/12)

Attendance at Testing

Of the close contacts created between 30th November and 6th December, to date 82% have attended their Day 0 Test and 78% have attended their Day 7 Test.

Positivity Rates

The current positivity rates for close contacts created between 30th November and 6th December are 12.6% and 3.7% at day 0 and day 7 testing respectively.

Source: CMP Close Contact Report – HSE (30/11-6/12)

Circumstances of Contact	Positivity Rate -Day 0 %		Positive Results-Day 7 %	
	30/11 – 06/12	16/11 – 06/12	30/11 – 06/12	16/11 – 06/12
Household	23.4	20.3	8.1*	6.6
Social	11.5	10.4	5.9*	2.7
Workplace	3.0*	6.4	0.0*	2.6
Early Years Register	5.2	5.0	1.4*	0.5*
Primary school	6.8	3.1	3.8*	1.8
Secondary level education	0.8*	1.1	0.0*	1.0*
Special school	0.0	0.0*	0.0*	0.0*
Third level education	0.0	18.1	0.0*	0.0*
Healthcare Setting: Patient	12.5*	9.1	N/A	6.3*
Healthcare Setting: Staff	6.7*	14.0	0.0*	5.3*
Transport: flight	6.5*	6.7	0.0*	7.1*
Transport: other	16.7*	7.5	0.0*	0.0*
Sport Indoor activity	N/A	0.0*	N/A	N/A
Sport Outdoor activity	33.3*	2.9*	0.0*	0.0*
Other	8.3*	9.0	5.9*	0.0*
Not Recorded	14.3	12.0	6.7*	5.3
Total	12.6	12.2	3.7*	4.0

*Note: Circumstances of Contact with fewer than 5 positive results are indicated by an *. Further details can be found in Appendix 3 of relevant report*

Growth in Cases & R number

Growth rate – cases – 21-day window

The growth rate in Dublin and in the other 25 counties was the same in the first phase of the pandemic, but has differed in recent months. The outbreaks in Kildare, Laois and Offaly increased the national growth rate in early August. Growth rate in Dublin then increased to almost 7% per day, fell to a low of zero growth, and then increased again to grow at 3% per day. Growth rate across the rest of the country rose throughout September and October to a peak of 8% per day. Case numbers decreased at -5 to-7% per day for the first three weeks of Level 5 measures; growth rate is currently close to zero.

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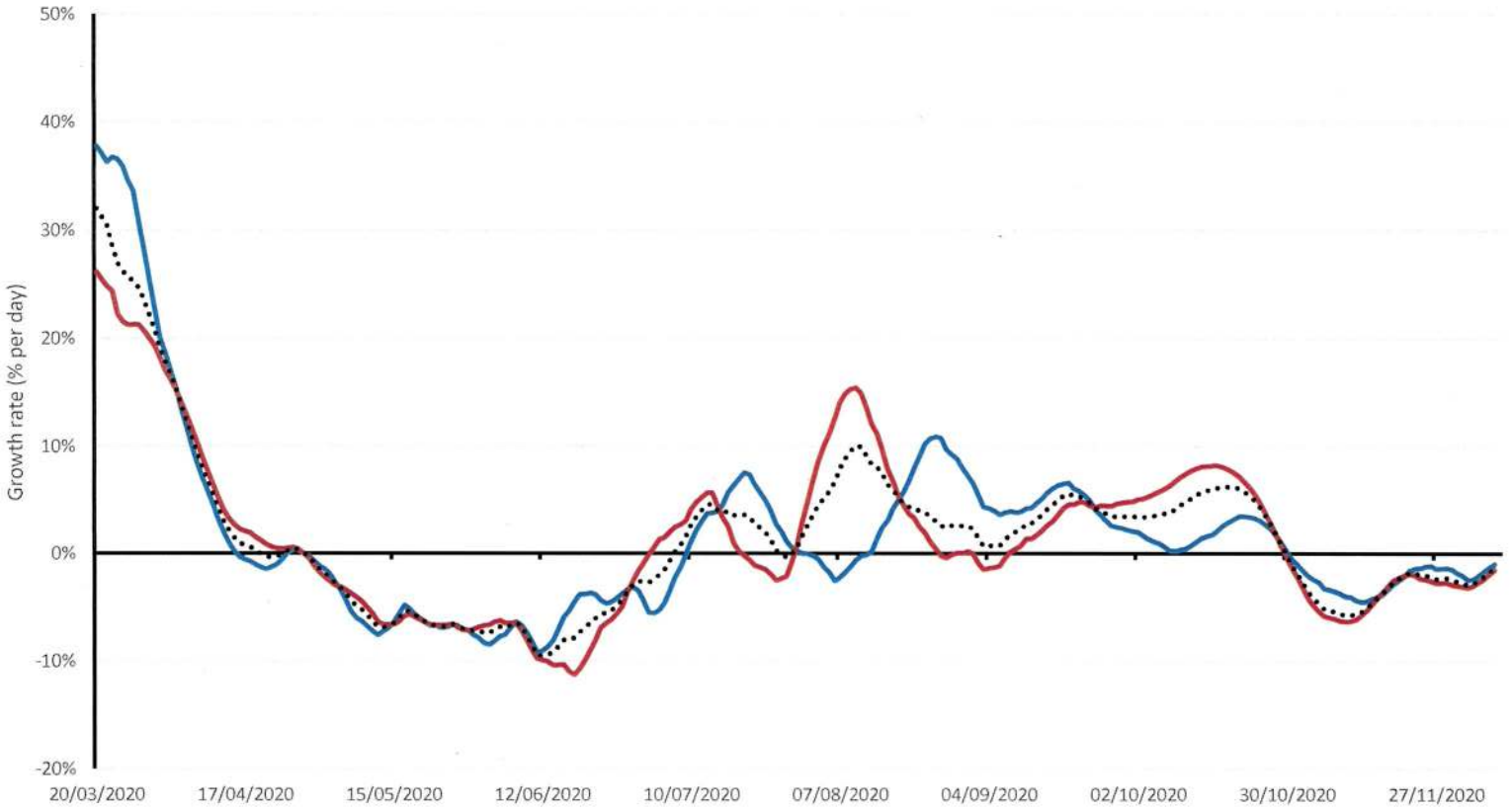

Daily growth in cases:

- Dublin
- State
- 25 counties

Growth rate calculated as the average growth rate over a 21-day trailing window; cases dated by notification (event) date.

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Close contacts

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 period immediately after the mid-term break was associated with an increase in close contacts. The number of close contacts per case in recent days is low.

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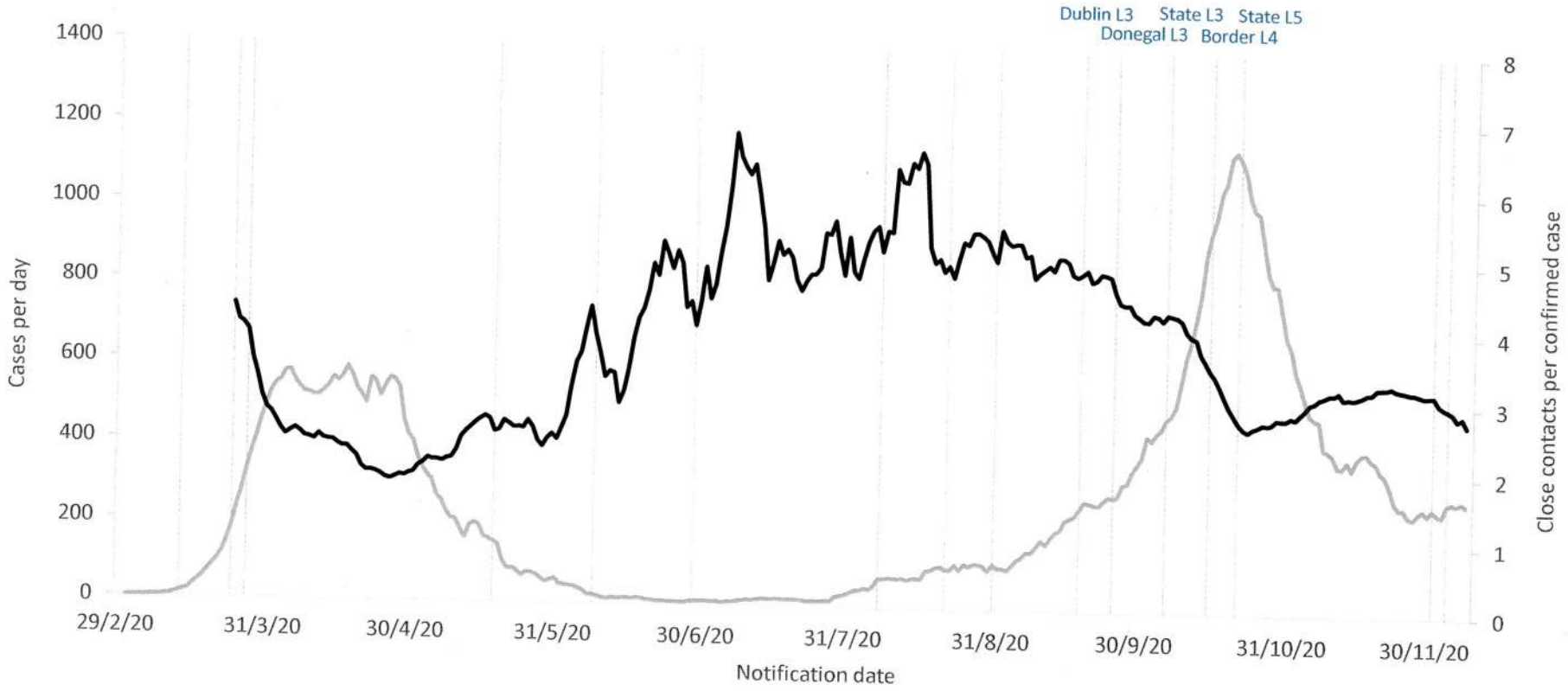

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Estimates of effective reproduction number (R)

Reproduction number is difficult to estimate as it is probably increasing – it is currently estimated at 0.9 to 1.0.

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Method	Estimate	95% confidence interval
SEIR model-inferred	0.94	0.77 – 1.12
Bayesian model	0.91	0.76 – 1.10
Time-dependent R	1.03	0.85 – 1.21
GAM estimate 1 Dec 2020	0.94	0.77 – 1.11
GAM estimate 8 Dec 2020	1.00	0.75 – 1.25

Estimates generated 9 December 2020, 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. 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.

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Situation analysis 9 December 2020

Coronavirus **COVID-19** Public Health Advice

- The level of infection is static
  - growth rate close to 0%
  - R estimated at 0.9-1.0
    - caution in interpreting R number – it's an *estimate* that *lags* changes in viral transmission
- Persistent delayed incidence in healthcare workers and outbreaks
- Numbers in hospital decreasing slowly, numbers in intensive care and deaths per day are not decreasing
- A persistently high incidence in older persons
- Measures of mobility have increased but the number of close contacts per case is stable
- Models show high risk of surge in January unless R remains close to 1.0
- Remain extremely cautious, limiting our number of contacts per week, and taking every precaution during such contacts

Health Protection Surveillance Centre
Lárionad Faire um Chosaint Sláinte

NOCA National Office of Clinical Audit

Performance Management and Improvement Unit

IEMAG

Rialtas na hÉireann
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ECDC Data

ECDC data for EU/UK ranked by 14 day percentage change (9th December)

EU/EEA and the UK	14 day incidence	Previous 14 day incidence	% change in 14 day incidence
Latvia	438.1	275.9	59%
Finland	107.9	75.8	42%
Estonia	403.9	285.6	41%
Cyprus	466.6	331.4	41%
Lithuania	1115.3	807.1	38%
Denmark	375.1	276.7	36%
Croatia	1149.1	926.6	24%
Hungary	756.2	642.9	18%
Slovakia	398.9	373.7	7%
Netherlands	443.3	429.5	3%
Slovenia	1002.3	978.6	2%
Sweden	646.8	631.6	2%
Germany	309.8	307.9	1%
Luxembourg	1199.7	1284.3	-7%
Bulgaria	554.5	656.9	-16%
Romania	484.5	599.1	-19%
Malta	285.1	357.8	-20%
Czechia	510.7	682.2	-25%
Ireland	**76.5**	**102.8**	**-26%**
United_Kingdom	317.3	457.7	-31%
Portugal	548.3	792.9	-31%
Greece	213.6	322.3	-34%
Italy	501.0	761.4	-34%
Austria	590.8	1030.6	-43%
Belgium	226.6	408.0	-44%
Spain	229.0	418.1	-45%
Poland	440.1	830.8	-47%
France	232.5	483.7	-52%

ECDC data for EU/UK ranked by 14 day incidence (9th December)

EU/EEA and the UK	14 day incidence	Previous 14 day incidence	% change in 14 day incidence
Luxembourg	1199.7	1284.3	-7%
Croatia	1149.1	926.6	24%
Lithuania	1115.3	807.1	38%
Slovenia	1002.3	978.6	2%
Hungary	756.2	642.9	18%
Sweden	646.8	631.6	2%
Austria	590.8	1030.6	-43%
Bulgaria	554.5	656.9	-16%
Portugal	548.3	792.9	-31%
Czechia	510.7	682.2	-25%
Italy	501.0	761.4	-34%
Romania	484.5	599.1	-19%
Cyprus	466.6	331.4	41%
Netherlands	443.3	429.5	3%
Poland	440.1	830.8	-47%
Latvia	438.1	275.9	59%
Estonia	403.9	285.6	41%
Slovakia	398.9	373.7	7%
Denmark	375.1	276.7	36%
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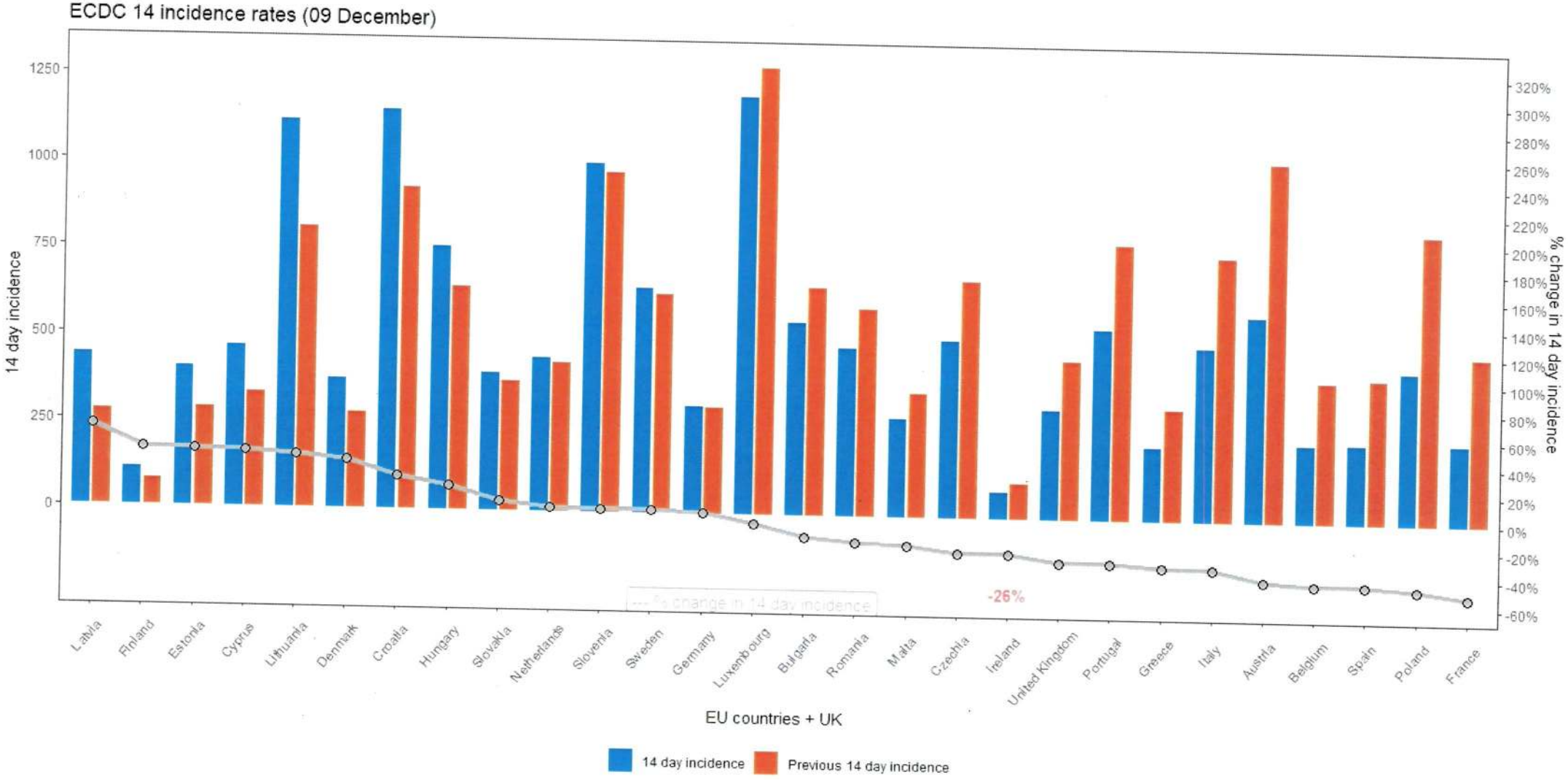
Germany	309.8	307.9	1%
Malta	285.1	357.8	-20%
France	232.5	483.7	-52%
Spain	229.0	418.1	-45%
Belgium	226.6	408.0	-44%
Greece	213.6	322.3	-34%
Finland	107.9	75.8	42%
Ireland	**76.5**	**102.8**	**-26%**

ECDC data for EU/UK ranked by 7 day percentage change (9th December)

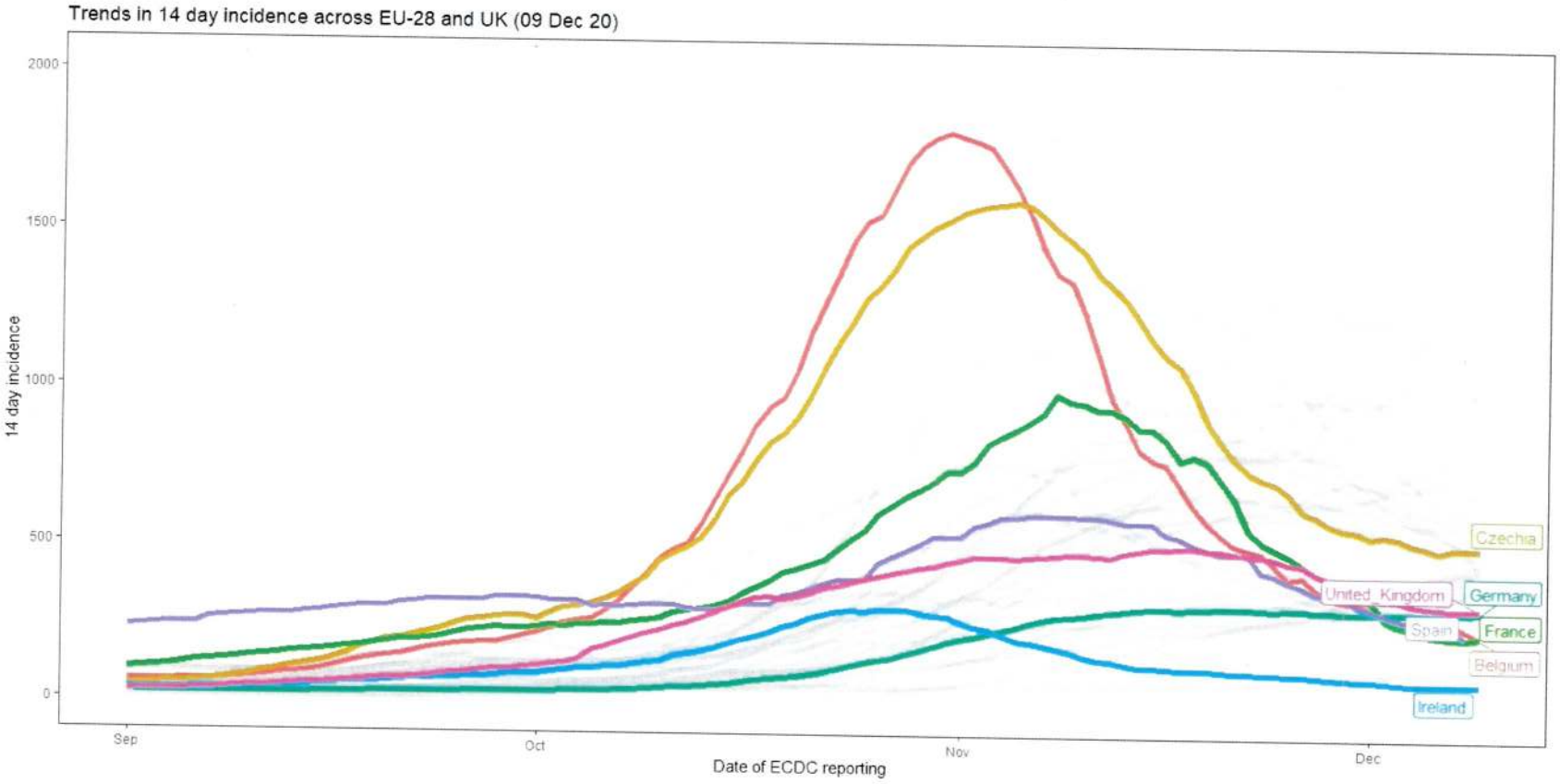
EU/EEA and the UK	7 day incidence	Previous 7 day incidence	% change in 7 day incidence
Denmark	221.3	153.8	44%
Cyprus	274.4	192.3	43%
Estonia	227.4	176.5	29%
Netherlands	248.1	195.2	27%
Slovakia	221.1	177.8	24%
Latvia	230.1	208.0	11%
Czechia	267.2	243.6	10%
Germany	161.1	148.7	8%
Slovenia	519.1	483.2	7%
Luxembourg	618.7	581.0	6%
Malta	146.7	138.4	6%
Lithuania	570.3	545.0	5%
France	118.0	114.5	3%
United_Kingdom	160.8	156.5	3%
Ireland	**38.4**	**38.1**	**1%**
Croatia	576.8	572.3	1%
Bulgaria	277.0	277.5	0%
Romania	232.0	252.5	-8%
Finland	50.4	57.5	-12%
Sweden	301.7	345.1	-13%
Hungary	351.8	404.4	-13%
Greece	98.6	115.0	-14%
Poland	200.8	239.3	-16%
Italy	226.1	274.8	-18%
Portugal	239.5	308.9	-22%
Spain	97.8	131.2	-26%
Austria	244.9	345.9	-29%
Belgium	93.1	133.5	-30%

Source: ECDC

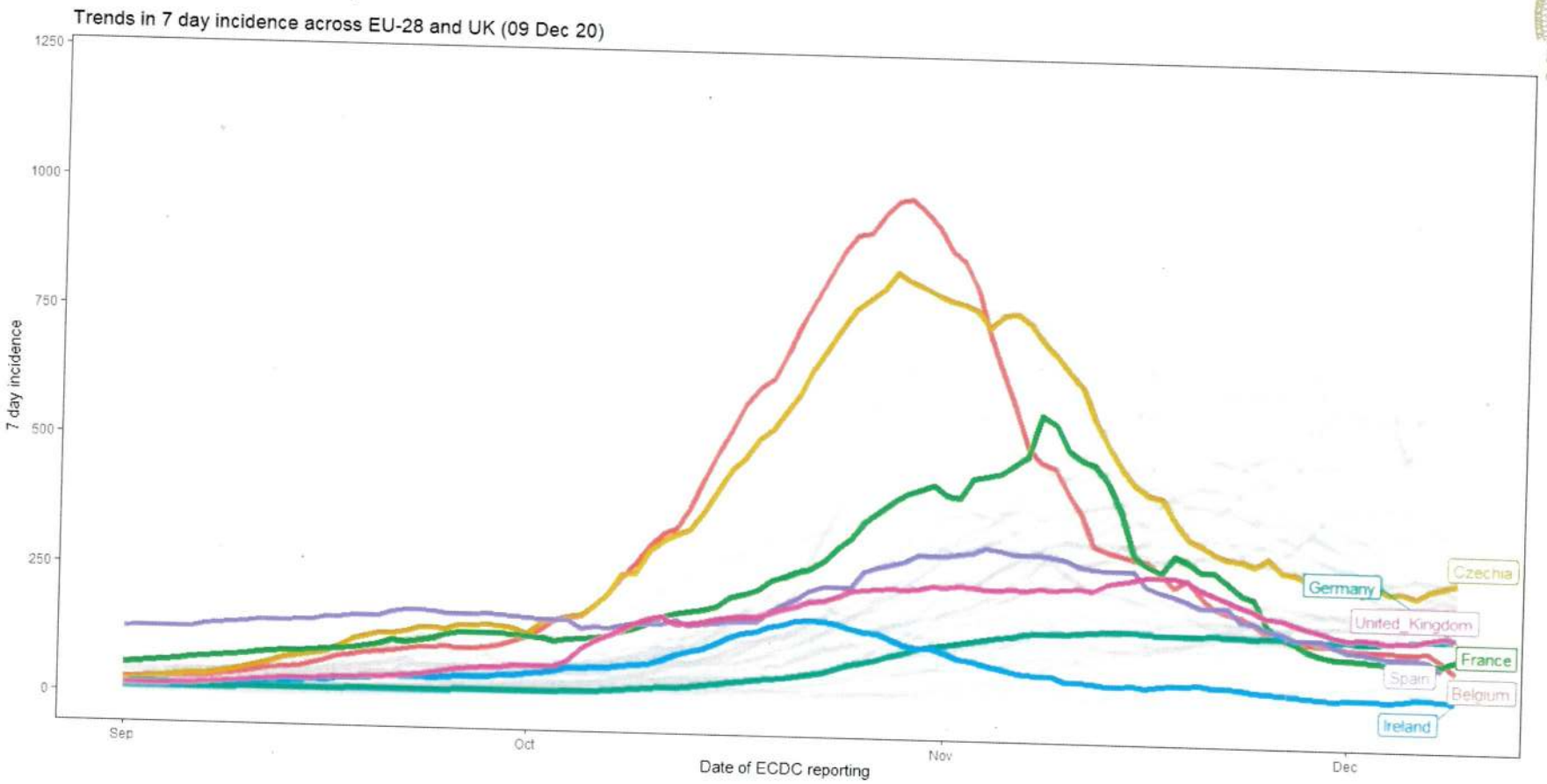


Updated 9th December

Trends in ECDC data since start September (14 day incidence)



Trends in ECDC data since start September (7 day incidence)



Compliance Data

Google community mobility

These data show time spent in residential areas and attendance at workplaces for those who enable location sharing on their Google account; each day of the week is compared with the average for that day of the week over January and February 2020. Attendance at workplaces is high compared to April, especially on weekdays. Note the impact of the mid-term break.

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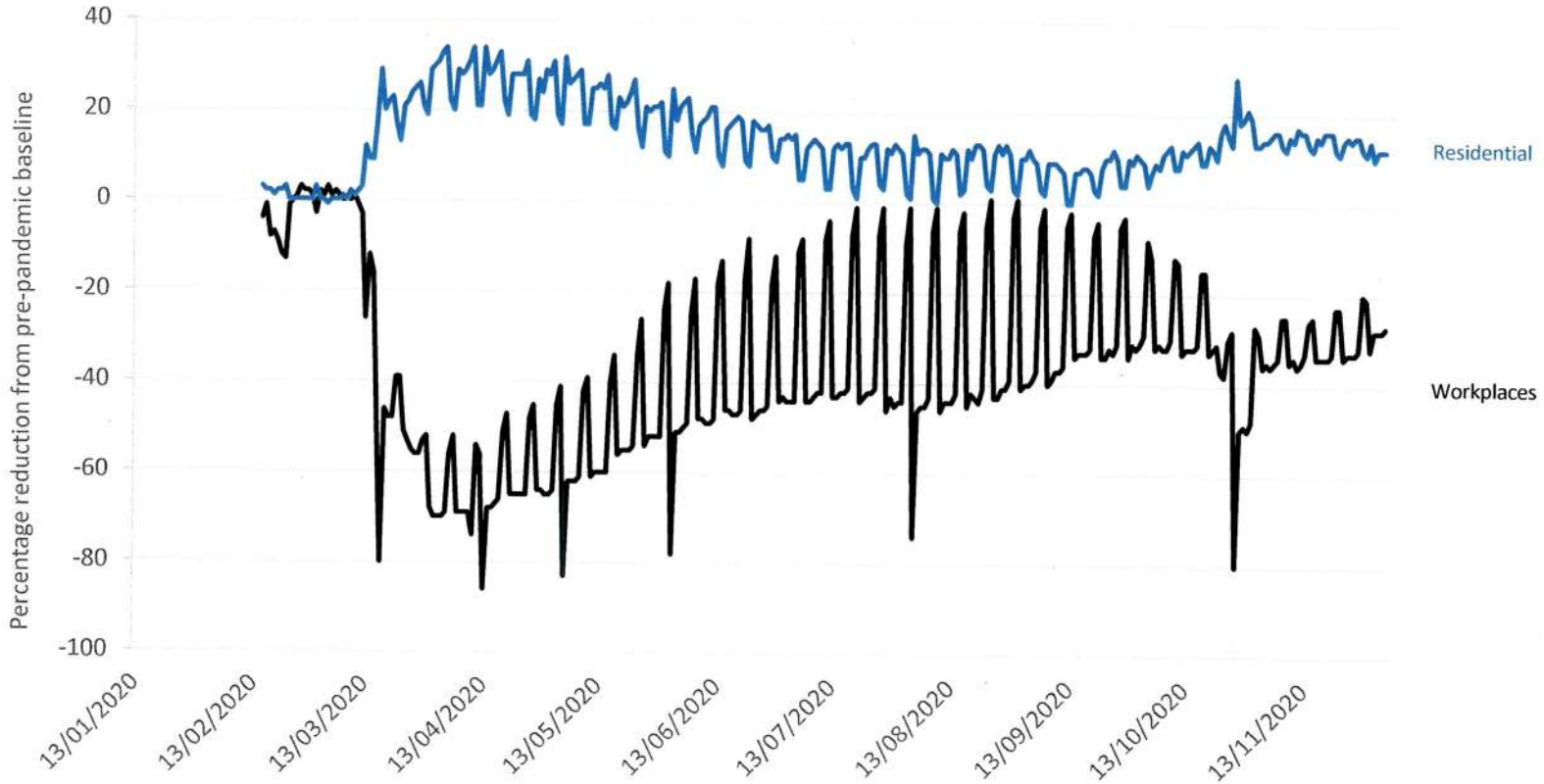

Coronavirus **COVID-19** Public Health Advice

Rialtas na hÉireann
Government of Ireland

Google community mobility

These data show numbers of people in grocery stores and pharmacies, and retail and indoor recreation settings, for those who enable location sharing on their Google account; each day of the week is compared with the average for that day of the week over January and February 2020. The numbers in retail and recreation settings reduced greatly on Level 5 and is back to summer levels now

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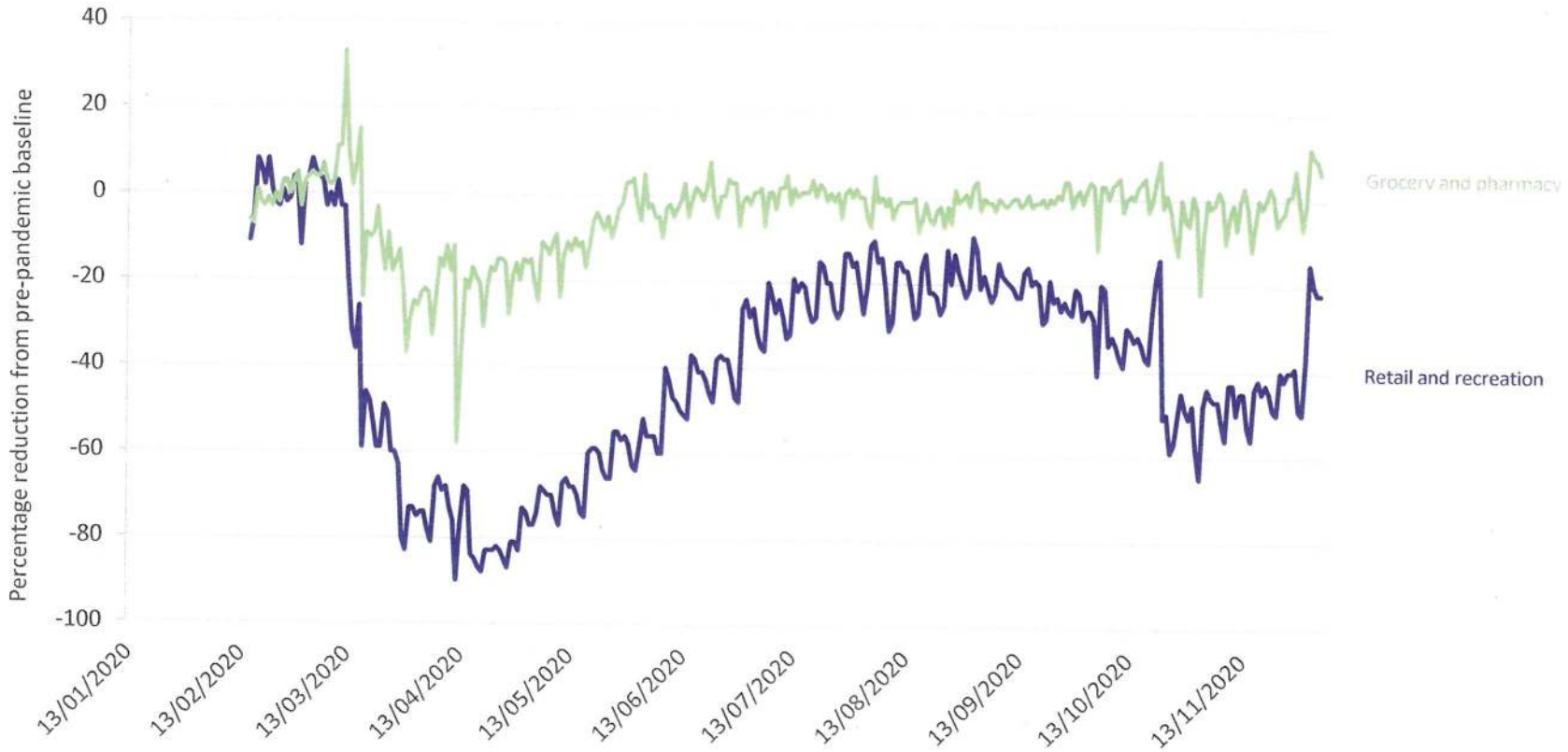
Coronavirus **COVID-19** Public Health Advice



HSE

Rialtas na hÉireann
Government of Ireland

Apple mobility

Note separate stepwise impact of Level 3 and Level 5 in Dublin, but progressive reduction in mobility across the country as a whole from mid-September up to step change at national Level 5. Mobility remained higher than April and is now increasing again. Note that these data are based on *requests for directions* using the stated mode of transport

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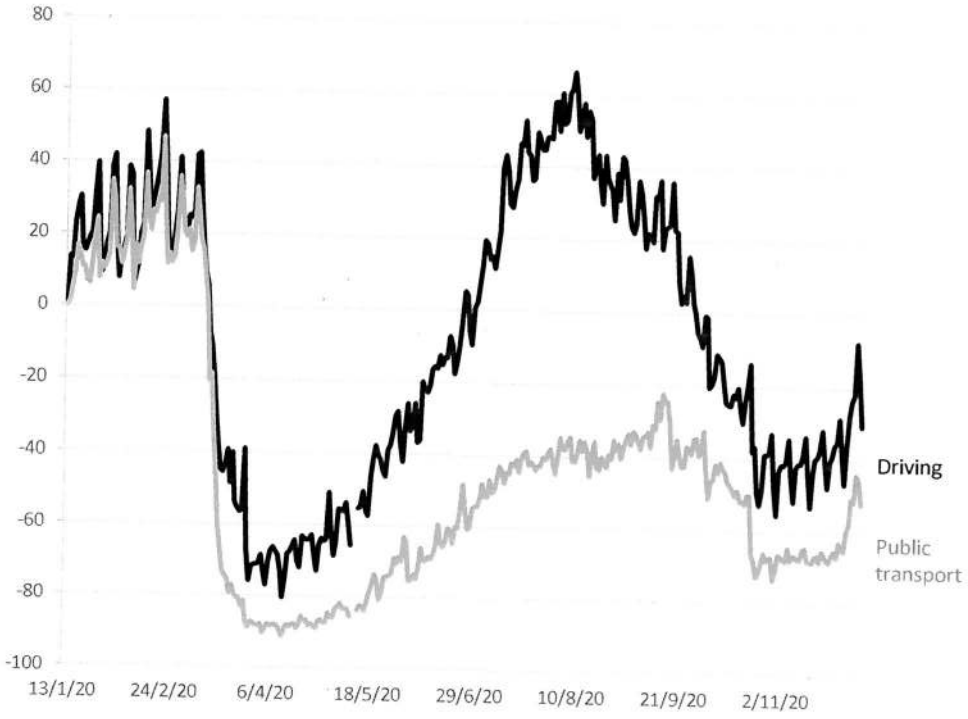
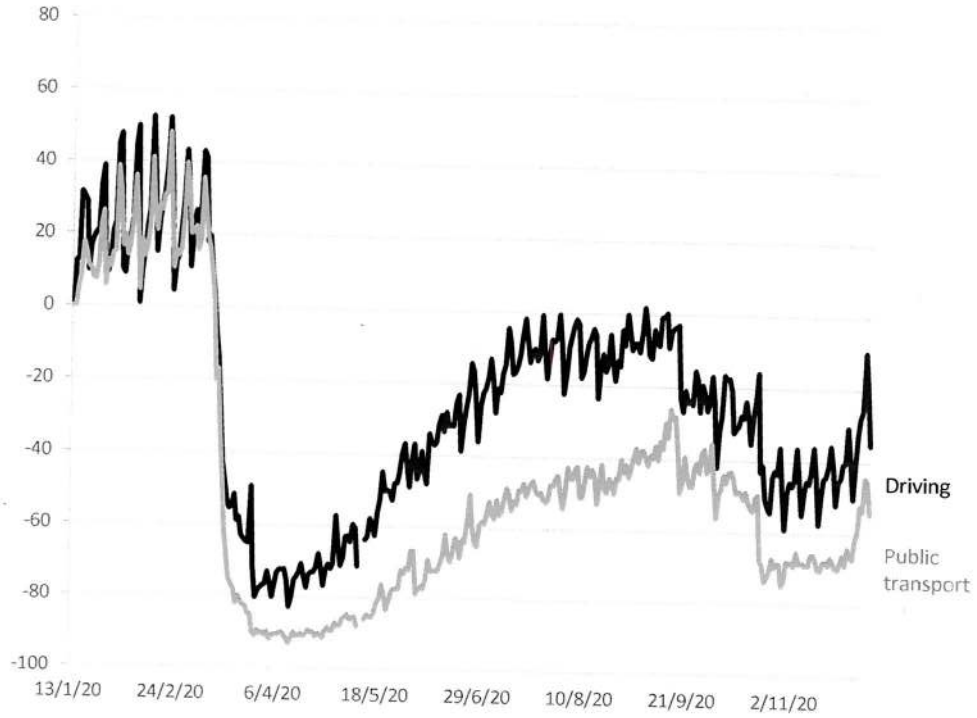
Coronavirus **COVID-19** Public Health Advice

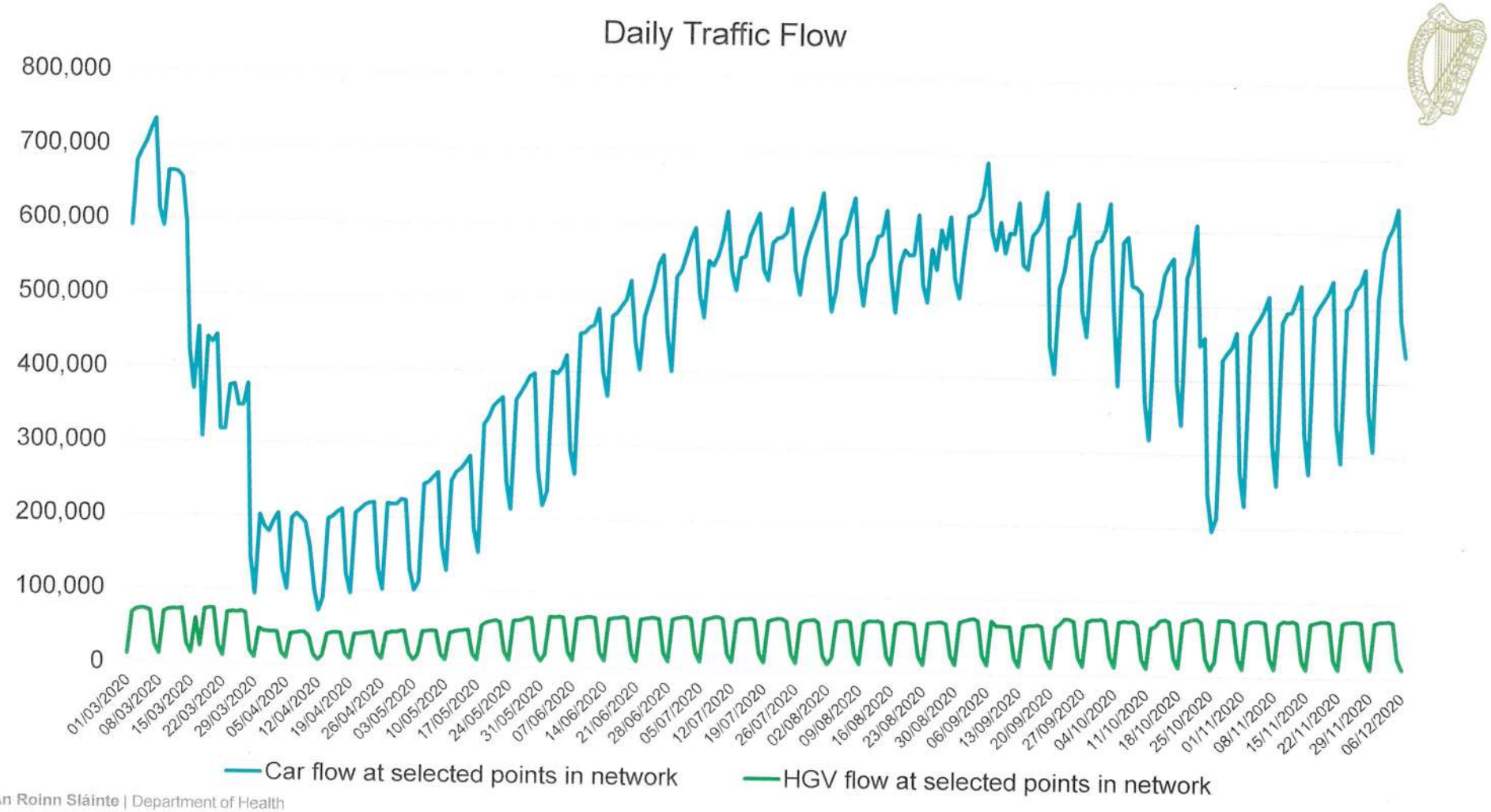
Ireland

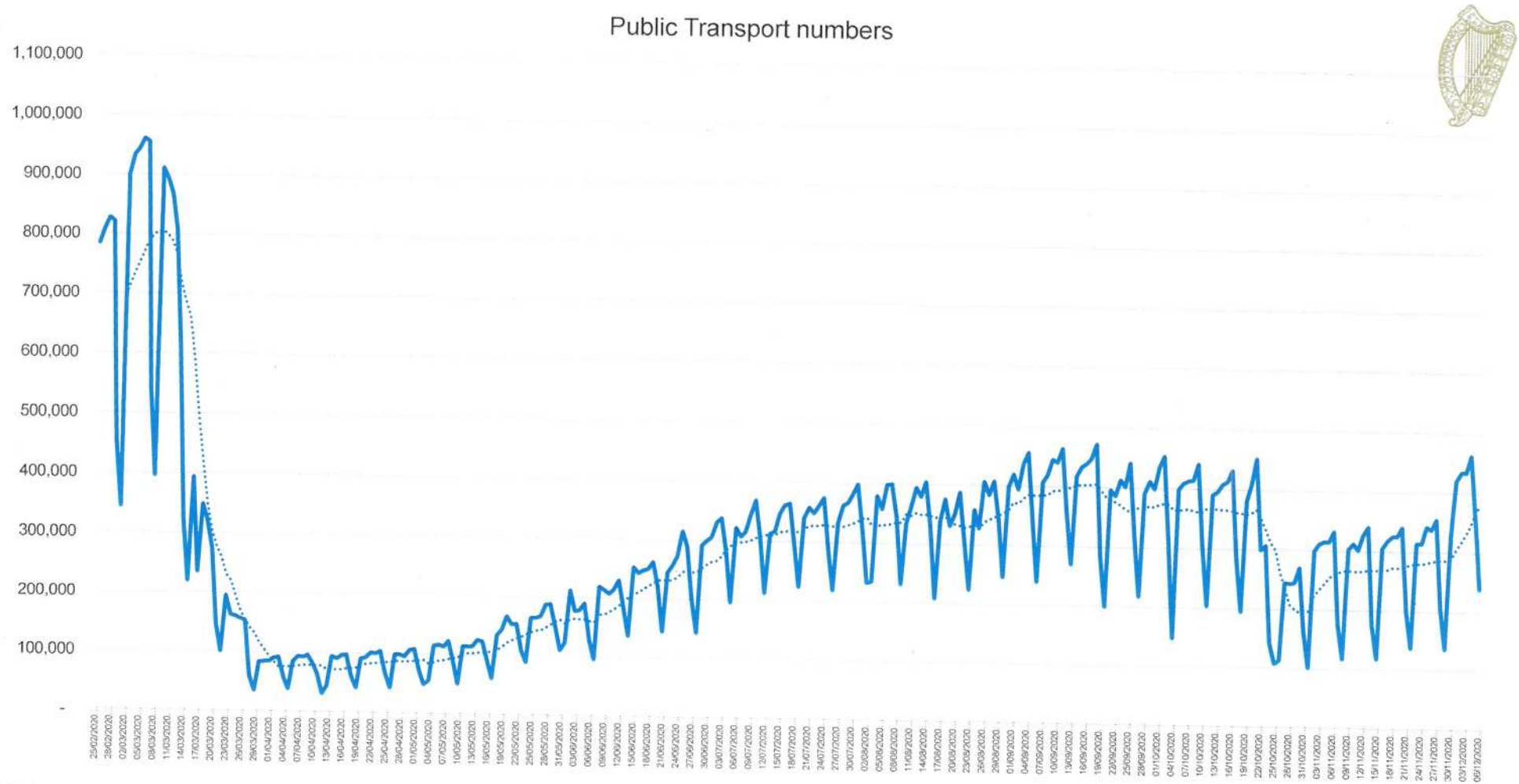


Dublin



Rialtas na hÉireann
Government of Ireland


Daily Traffic Flow
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
01/03/2020
08/03/2020
15/03/2020
22/03/2020
29/03/2020
05/04/2020
12/04/2020
19/04/2020
26/04/2020
03/05/2020
10/05/2020
17/05/2020
24/05/2020
31/05/2020
07/06/2020
14/06/2020
21/06/2020
28/06/2020
05/07/2020
12/07/2020
19/07/2020
26/07/2020
02/08/2020
09/08/2020
16/08/2020
23/08/2020
30/08/2020
06/09/2020
13/09/2020
20/09/2020
27/09/2020
04/10/2020
11/10/2020
18/10/2020
25/10/2020
01/11/2020
08/11/2020
15/11/2020
22/11/2020
29/11/2020
06/12/2020
Car flow at selected points in network
HGV flow at selected points in network


Public Transport numbers
1,100,000
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
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