



An Roinn Sláinte
Department of Health

Update for NPHET 15th October 2020

Total Confirmed

45,243

Daily Confirmed

1,095

Total Deaths

1,835

Daily Deaths

5

ICU Totals - The following figures update daily at approximately 11.00 and 18.45

ICU Capacity % (% Occ Beds / Max Capacity)

67.9

COVID in ICU

30

Suspected COVID in ICU

11

New COVID Cases (Last 24hrs)

1

Susp. COVID Cases (Last 24hrs)

0

COVID Discharges (Last 24 hrs)

2

COVID in ICU (Ventilation)

21

Acute Hospital Totals - The following figures are counts taken at 8.00, 14.00 and 20.00 daily. The first daily count refresh is at approximately 9.15am

COVID in Hospital

238

Suspected COVID in Hospital

215

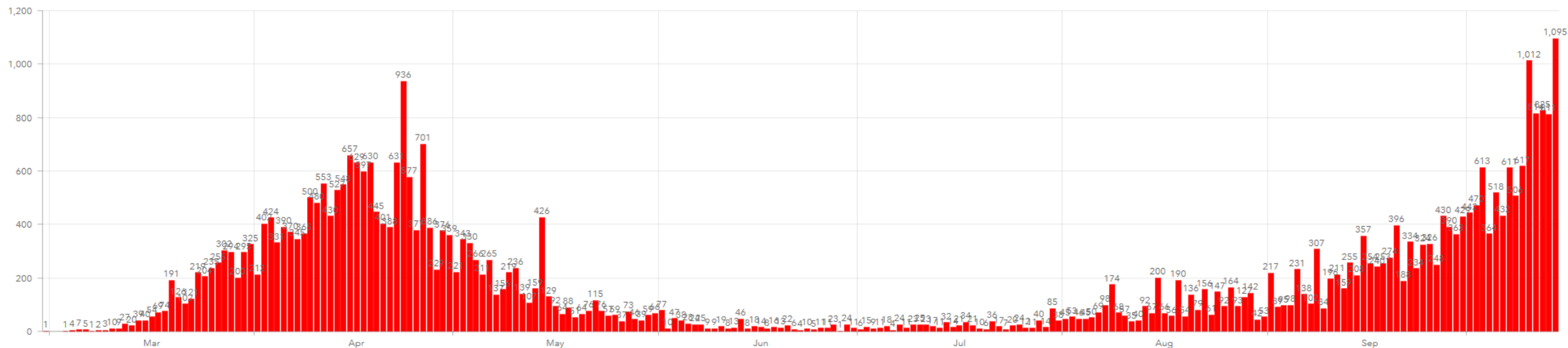
New Hospital COVID Admissions (Last 24hrs)

17

COVID in Hospital - Discharges (Last 24 hrs)

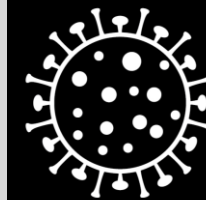
12

Confirmed COVID-19 Case Timeline - Event Date



Cases, numbers in hospital and intensive care

Case numbers have been increasing since late June. Hospitalisations have increased considerably over the last four weeks, and we have seen increasing admissions to ICU in the last two weeks starting to increase. The number of deaths is increasing.



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	15 Apr	23 Jun	28 Jul	8 Sept	15 Sept	22 Sept	29 Sept	6 Oct	13 Oct
Cases confirmed per day	537	10	19	151	210	276	332	468	742
14-day cumulative incidence <i>per 100,000 population</i>	155	4.2	5.6	41	54	71	89	116	191
Hospital in-patients	856	45	11	46	55	80	103	131	193
<i>Hospital admissions per day</i>	63	2	2	4	7	7	9	13	20
ICU confirmed cases	149	17	6	6	9	15	17	21	30
<i>ICU admissions per day</i>	8	< 1	< 1	< 1	1	1	1	2	3
Deaths confirmed per day	30	2	< 1	< 1	1	1	2	2	3

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. NPHE 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.



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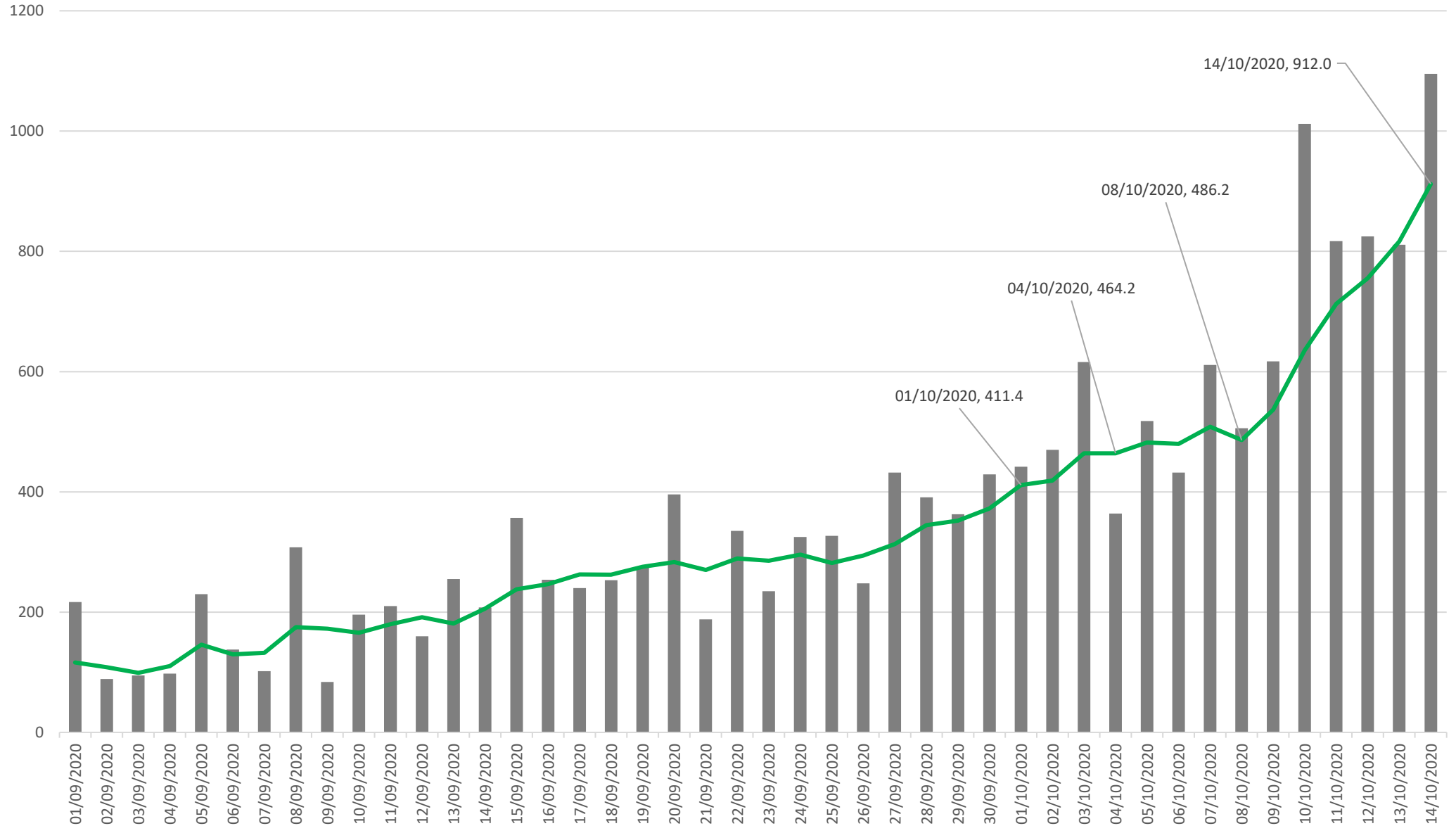
Rapid deterioration over the fortnight

	17 Sept	24 Sept	1 Oct	4 Oct	7 Oct	10 Oct	13 Oct	14 Oct
14-day incidence	56	77	92	108	124	150	177	191
5-day average cases	246	293	370	462	506	636	816	912
Total weekly cases	1304*	1948*	2068*	3063	3436	4060	5199	5,657
7 day average positivity	2.1%	2.2%	3.0%	3.4%	4.0%	4.7%	5.8%	6.3 %
No. in Hospital	73	90	122	134	156	194	234	232
No. in ICU	14	17	20	22	25	30	32	30

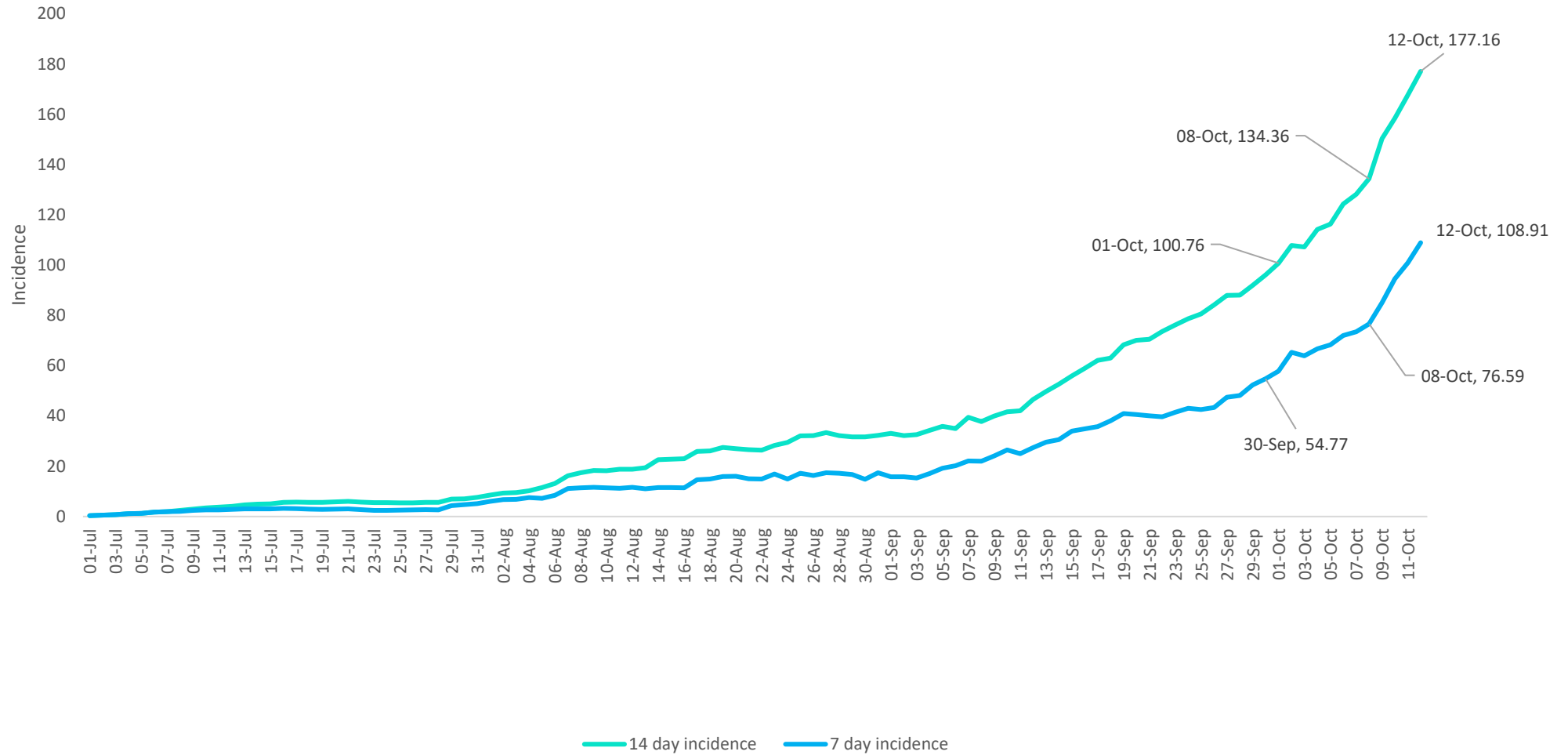
	1 Aug	1 Sept	1 Oct	4 Oct	7 Oct	10 Oct	13 Oct	14 Oct
No. Hospital	8	36	122	134	156	194	234	232
No. ICU	4	6	20	22	25	30	32	30

	August	September	October
Total Deaths	5	33	25

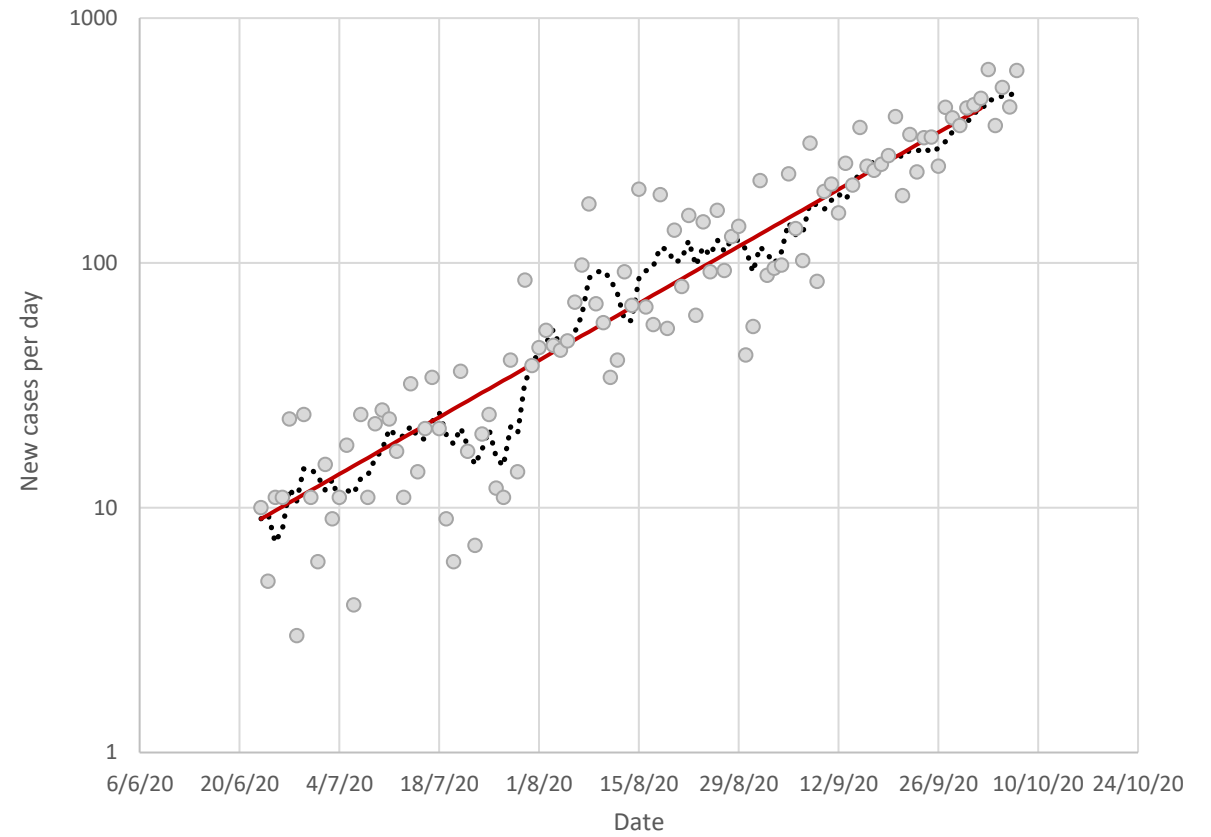
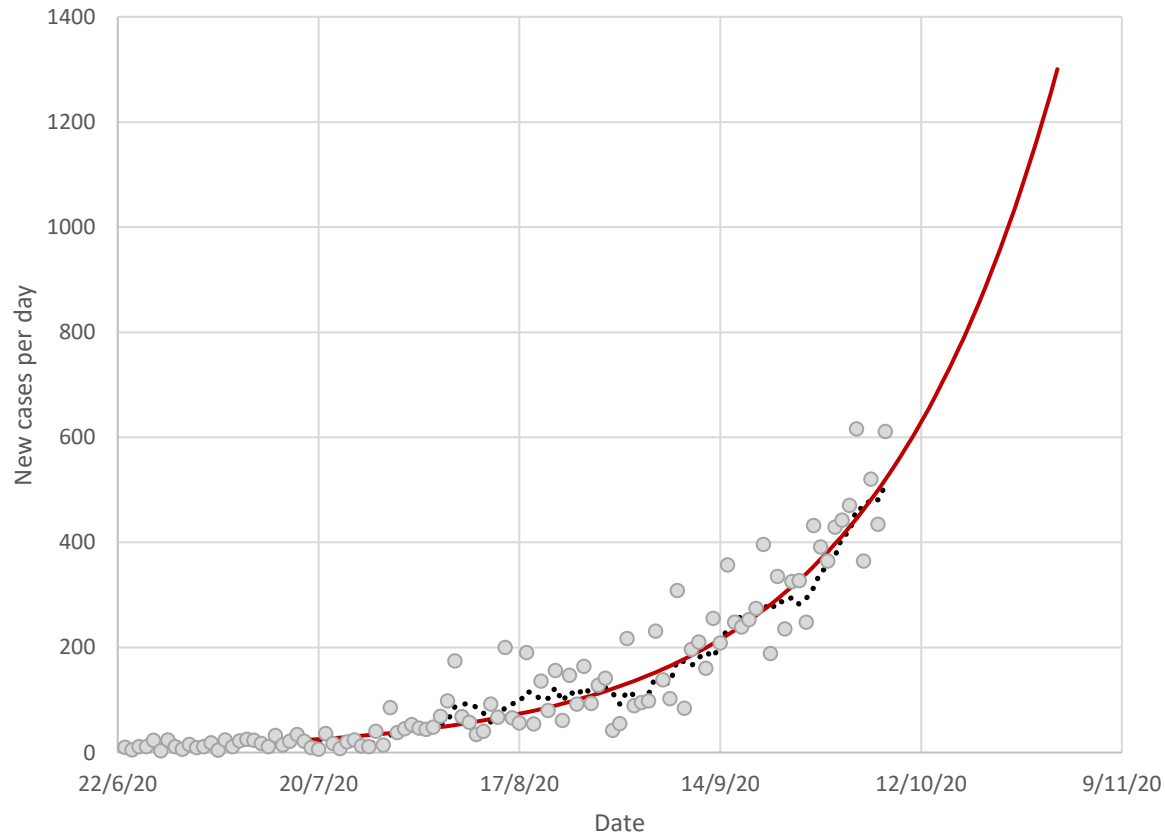
National Case Count and 5 Day Average



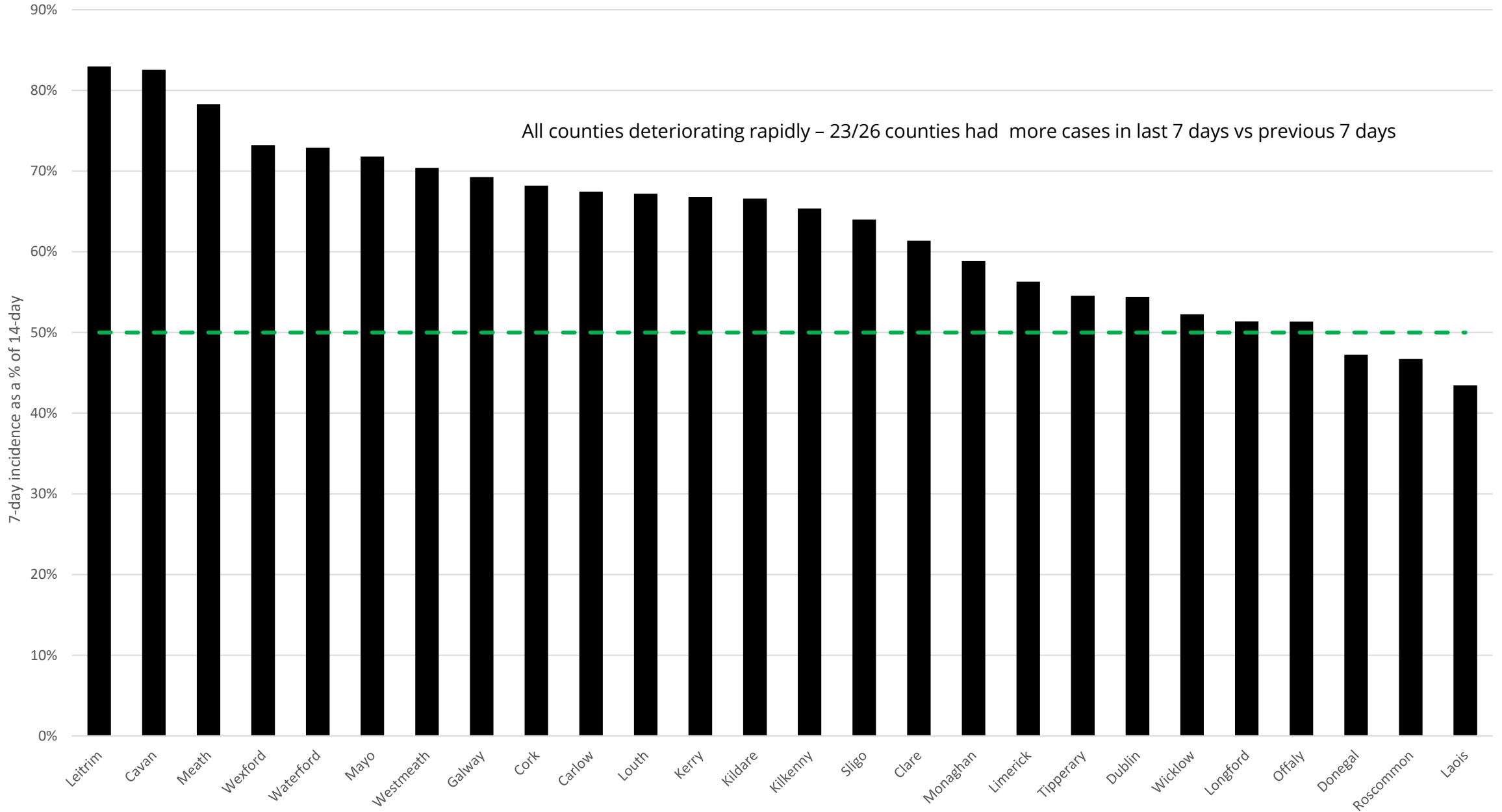
National 7 and 14 day Incidence rates



Cases growing exponentially



7-day incidence rate per 100,000 as % of the 14-day incidence

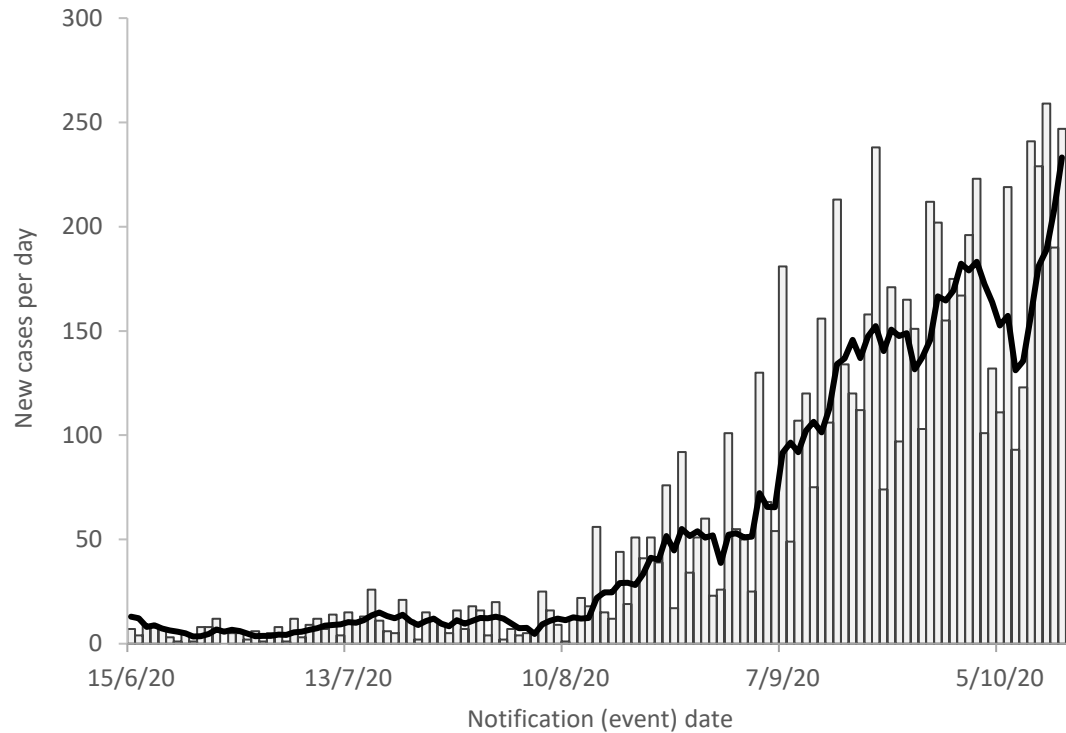


Confirmed cases each day

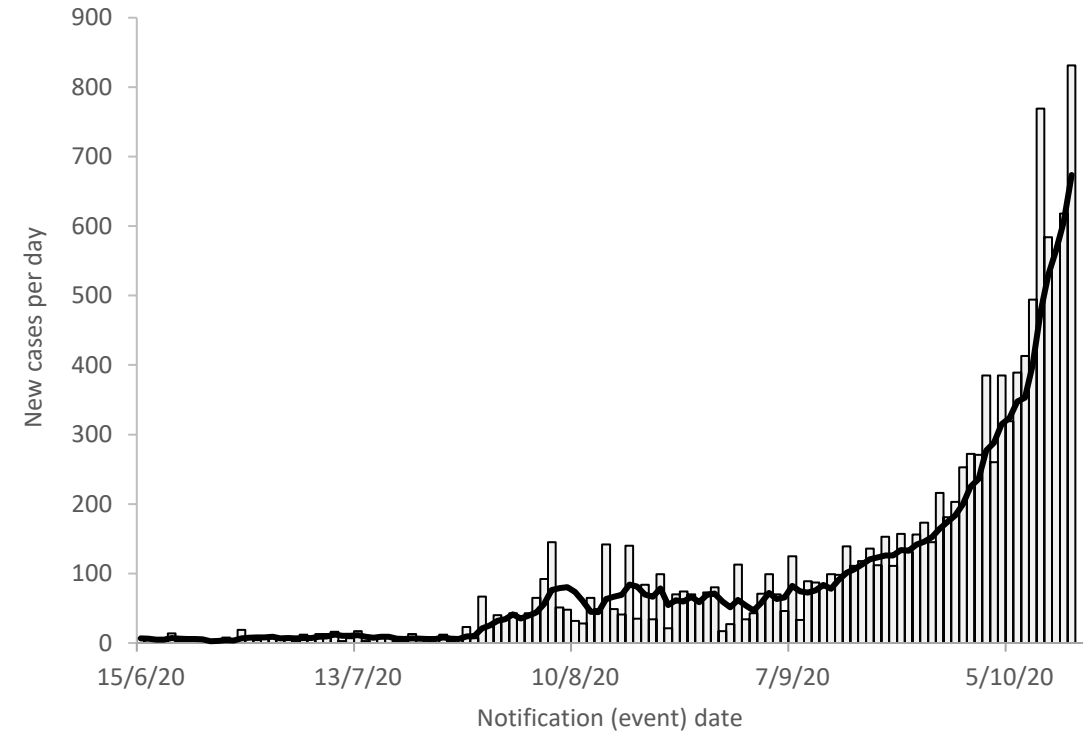
Daily case count and 5-day rolling average for Dublin alone and for the other 25 counties. Case counts appeared to stabilise in Dublin w/b 5/10/20 but recent high case counts a major concern; note also periods of apparent stability 24/8/20-4/9/20 and 17/9/20-27/9/20. Cases are growing exponentially across the rest of the country at a very high growth rate



Dublin



25 counties



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

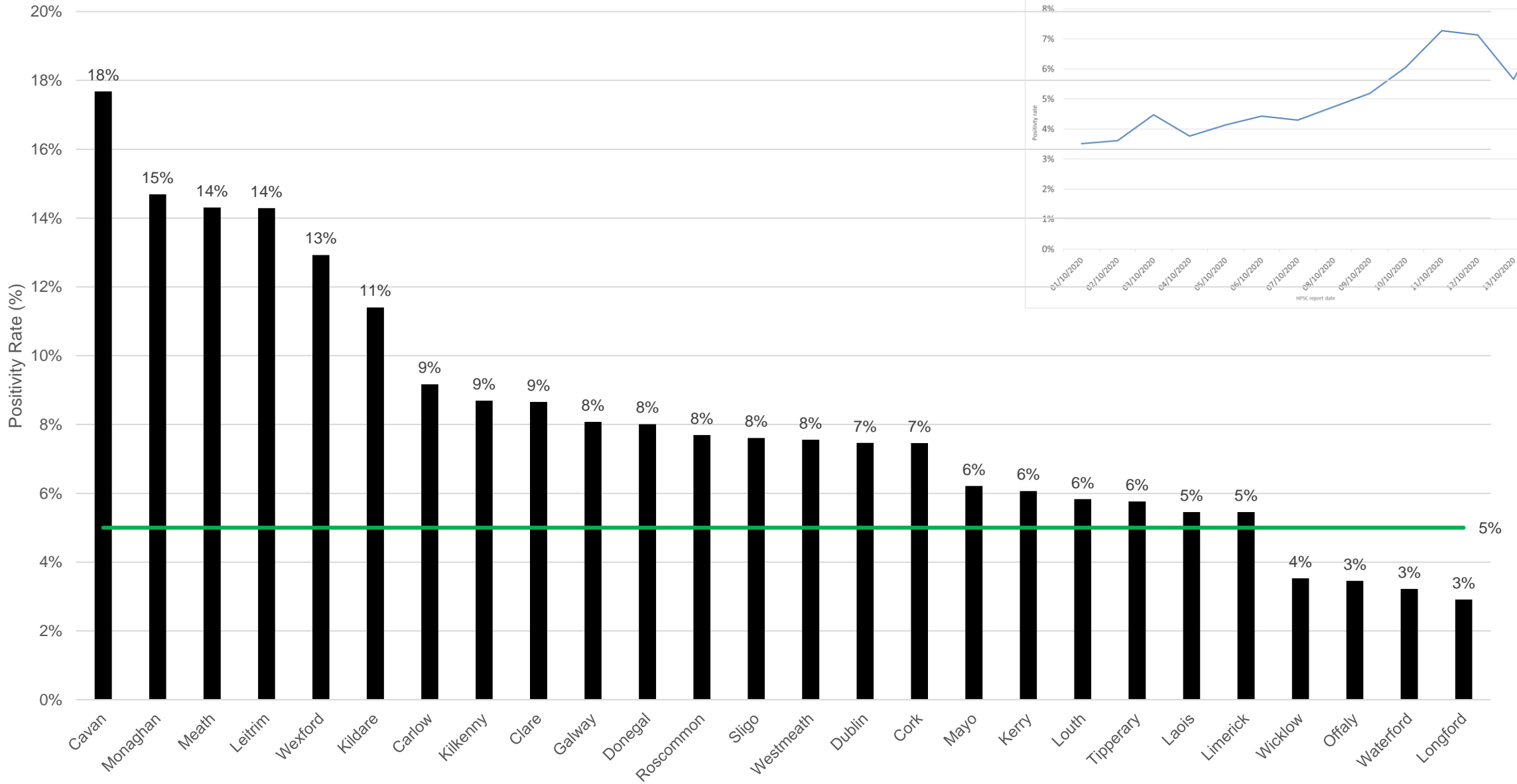
Daily incidence by county

A heat map of daily incidence (average number of new cases per day per 100,000 population).



Scale: Daily new cases per 100,000 population, cases dated by notification (event) date, 5-day moving average.

% Positivity Rate by county past 7 days



Laboratory Specimen Testing

Laboratory Specimen Testing updated daily (3pm, Mon-Sat) Source: HPSC

No Data

All Labs



Total Tests



1,372,722

Total Positive

49,642

3.6%

Tests (24hrs)



16,126

Tests (Last 7 days)

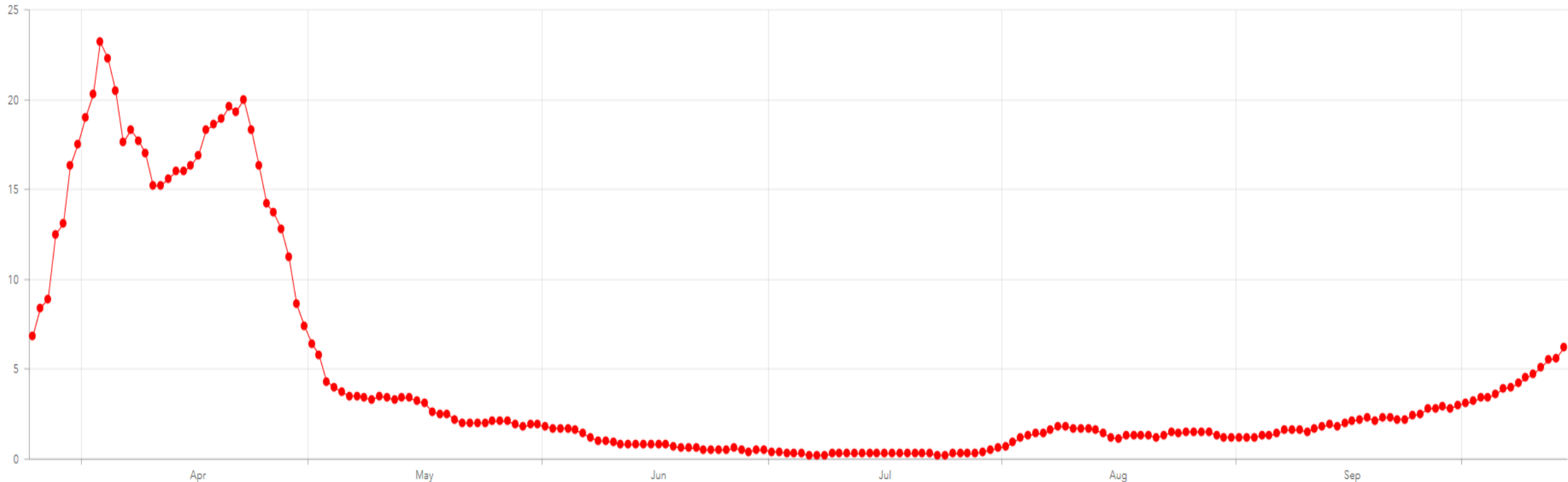


101,270

Positive (Last 7 days)

6,262

6.2%



Total Tests Completed - Group

Positive Rate - Total

Positive Rate - Last 7 days

Total Test Completed - Group Overview

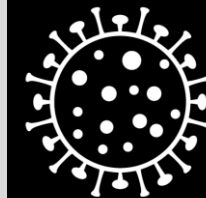
Tests Completed per Lab

COVID-19 Detected per Lab

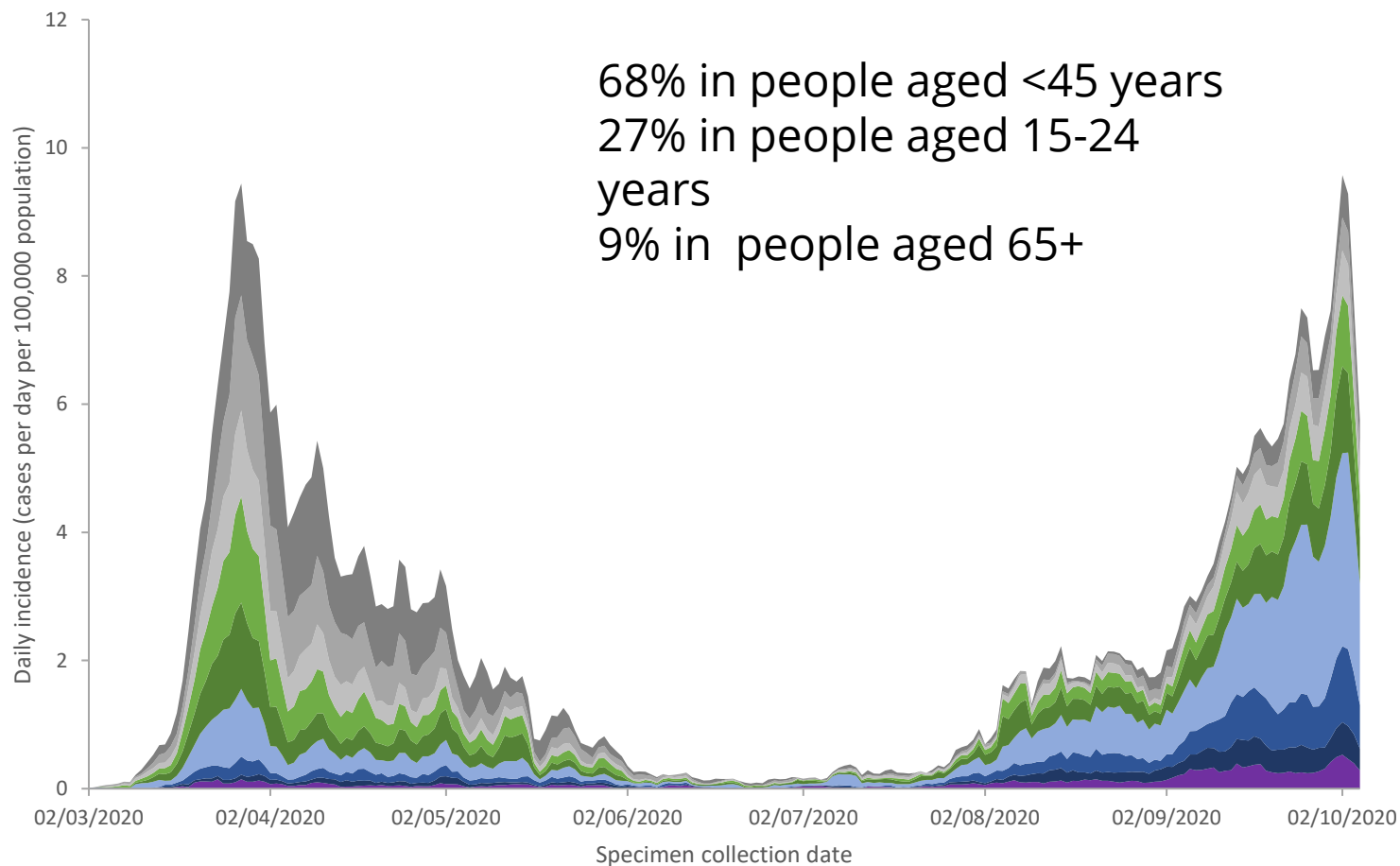
Testing per Million

Incidence across different age groups (excl. HCW and LTRC)

When incidence started to rise again July, cases increased first in the 0-19 and 20-39 age group; the former relates to increased detection in children in household outbreaks, the latter due to younger workers in workplace outbreaks. There has been a major increase in incidence in recent weeks. Incidence in older age groups has started to rise and there has been a marked increase in incidence in the 19-24 age group. The incidence in the 0-18 age group, as a proportion of the overall incidence, is stable or decreasing



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- 85+
- 75-84
- 65-74
- 40-64
- 25-39
- 19-24
- 13-18
- 5-12
- 0-4

Week	Age band								
	0-4	5-12	13-18	19-24	25-39	40-64	65-74	75-84	85+
9	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.0	0.0
10	0.0	0.2	0.3	0.0	0.2	0.7	0.5	1.0	0.0
11	0.6	0.2	0.5	5.4	5.0	4.4	4.6	6.6	5.9
12	4.5	2.4	7.5	23.6	27.8	31.2	25.4	25.4	28.1
13	6.9	4.2	14.5	58.0	73.4	86.6	72.6	88.5	84.4
14	4.5	4.4	6.7	28.1	40.3	50.9	51.1	92.1	109.5
15	5.7	5.6	9.1	32.0	29.3	47.6	46.9	71.8	108.1
16	3.0	5.3	10.8	18.7	20.8	32.1	28.4	50.4	69.6
17	3.3	4.2	7.8	21.1	23.7	26.6	21.2	50.4	60.7
18	4.5	6.4	9.4	20.2	26.1	21.0	18.7	37.1	45.9
19	2.1	2.7	4.8	13.3	15.3	14.6	10.4	18.8	31.1
20	3.6	1.6	4.8	12.1	16.4	11.9	6.7	9.2	10.4
21	3.3	2.7	4.6	8.5	6.3	8.2	7.5	15.3	20.7
22	2.1	2.4	2.2	4.2	5.1	6.8	4.0	4.6	4.4
23	1.2	0.5	1.3	3.0	0.7	1.9	1.6	5.6	3.0
24	2.7	0.7	1.3	1.5	1.4	1.4	1.6	2.0	1.5
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	11.0	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	34.7	15.3	10.5	5.6	5.1	1.5
35	6.3	9.7	13.5	37.4	18.6	11.2	4.8	9.2	5.9
36	13.0	13.5	17.5	47.7	22.3	13.5	11.0	11.7	16.3
37	17.5	17.5	29.9	64.0	28.4	24.9	22.8	8.7	7.4
38	21.4	26.2	44.1	90.6	44.3	34.9	32.9	19.8	14.8
39	12.4	22.8	42.8	148.5	50.8	42.5	33.5	31.0	17.8
40	30.2	29.2	63.2	174.2	69.6	59.8	34.8	29.0	25.2
41	40.4	44.5	127.3	303.7	113.4	87.4	59.4	56.0	77.0

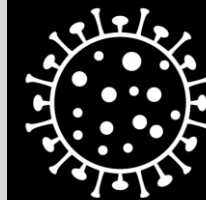
Chart shows 5-day rolling average of total incidence (cases per day per 100,000 population) with coloured bands showing the contribution of each age cohort to the total incidence, having adjusted for the number of people in that age cohort (CSO 2016 census data). Heat map shows age-specific incidence (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.



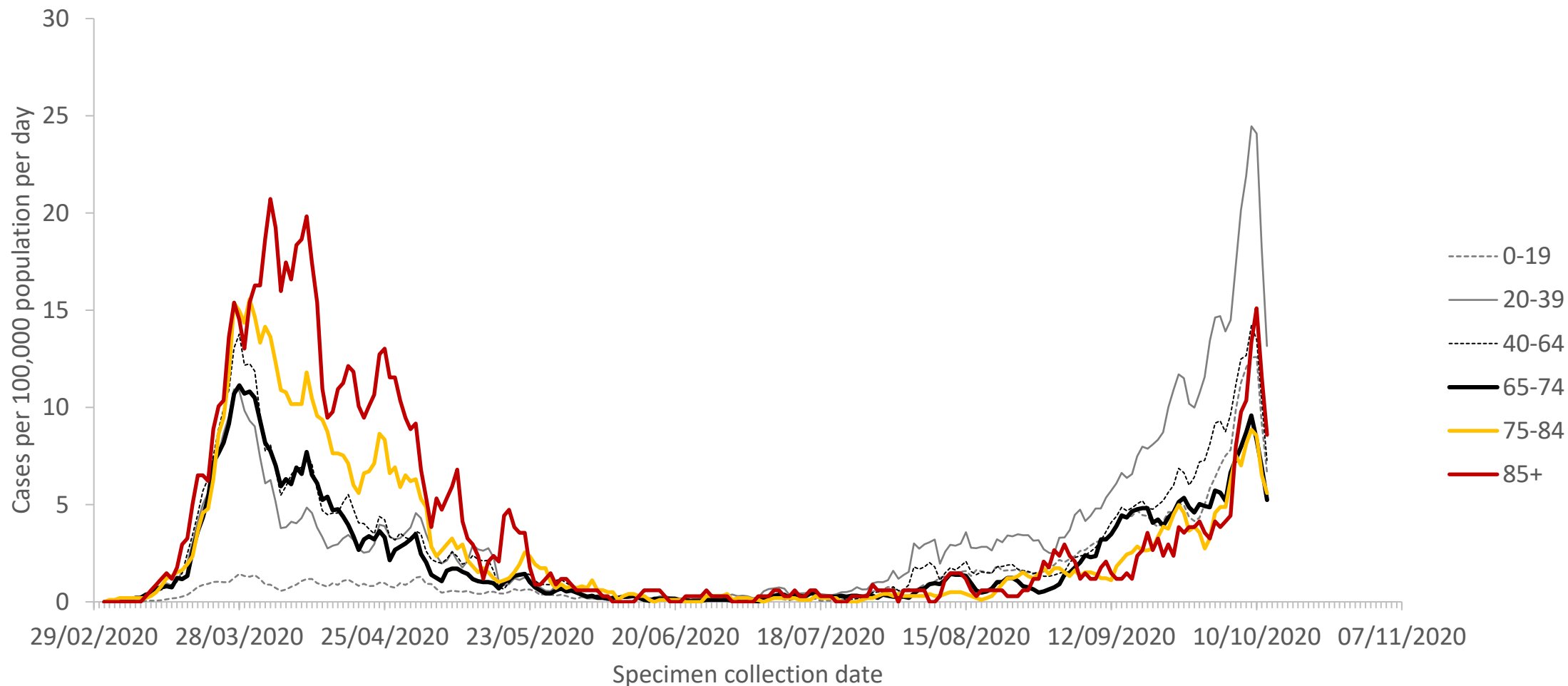
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Incidence by age

The majority of cases in recent weeks are younger people. However, the recent increase in incidence in older people is a cause for concern



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Data 5-day rolling average: Age specific incidence per 100,000 population, excluding healthcare workers and those associated with outbreaks in long-term residential care.

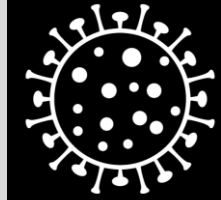


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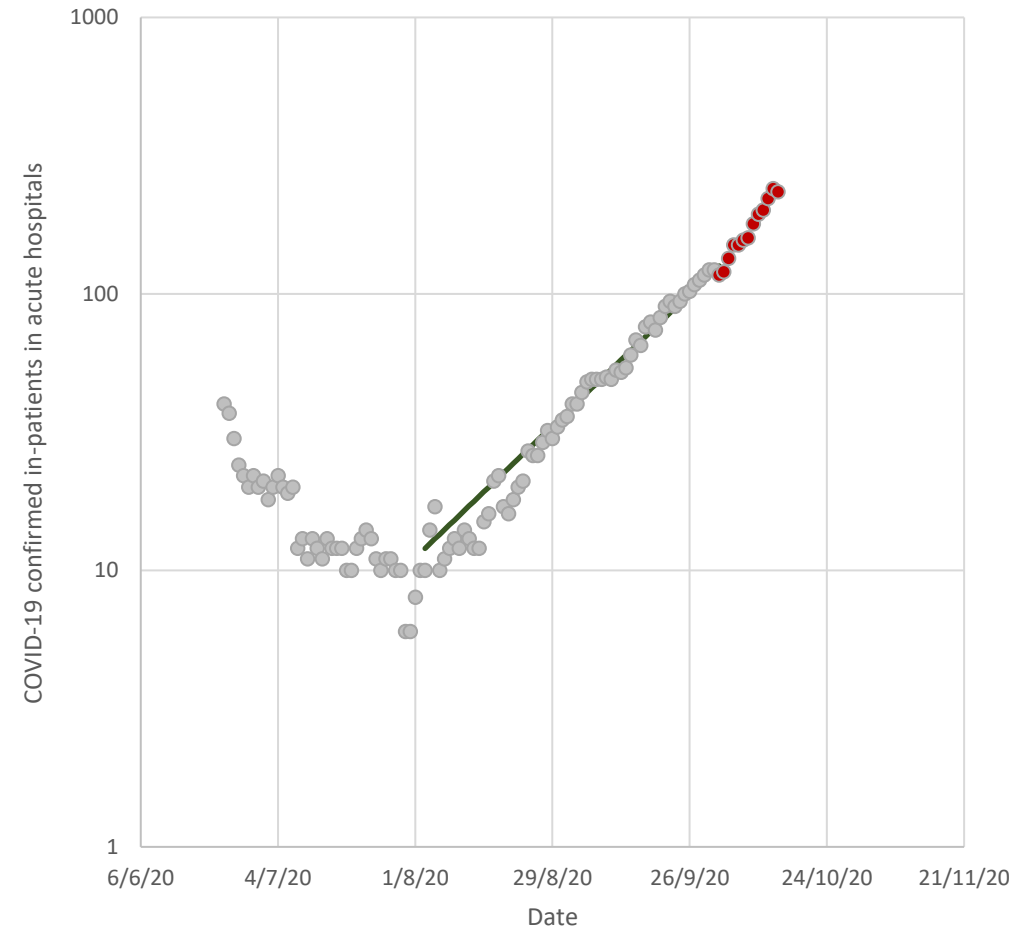
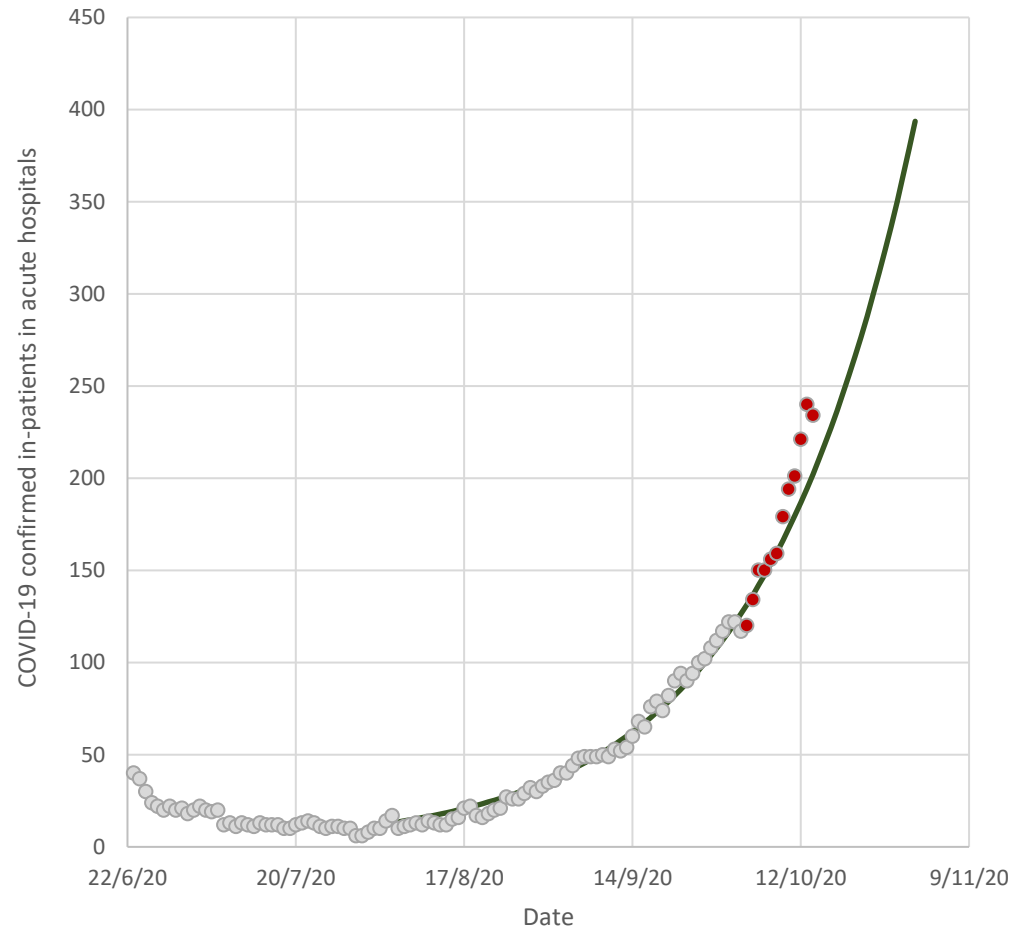
Hospital occupancy growing exponentially

The data to 1 October (grey data points) are fit with an exponential growth curve (green) at 4.0% growth per day from 3 August 2020.

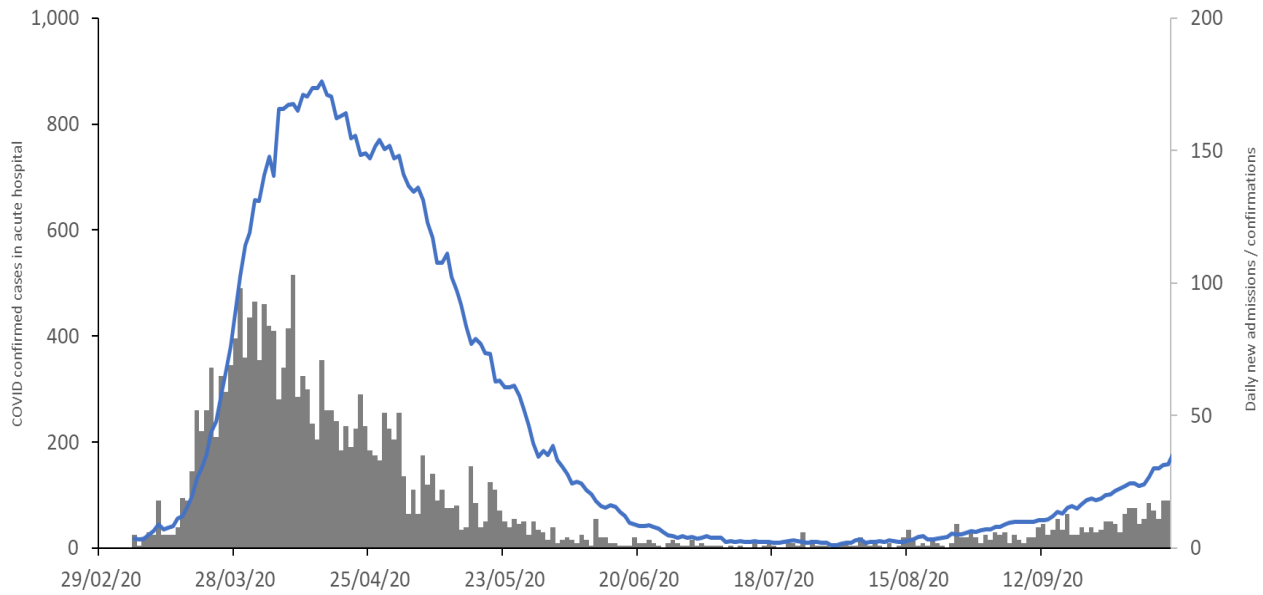
The subsequent numbers of people in hospital (red data points) have grown faster than this projection. If nothing changes, the numbers in hospital will grow to more than 400 by end-October



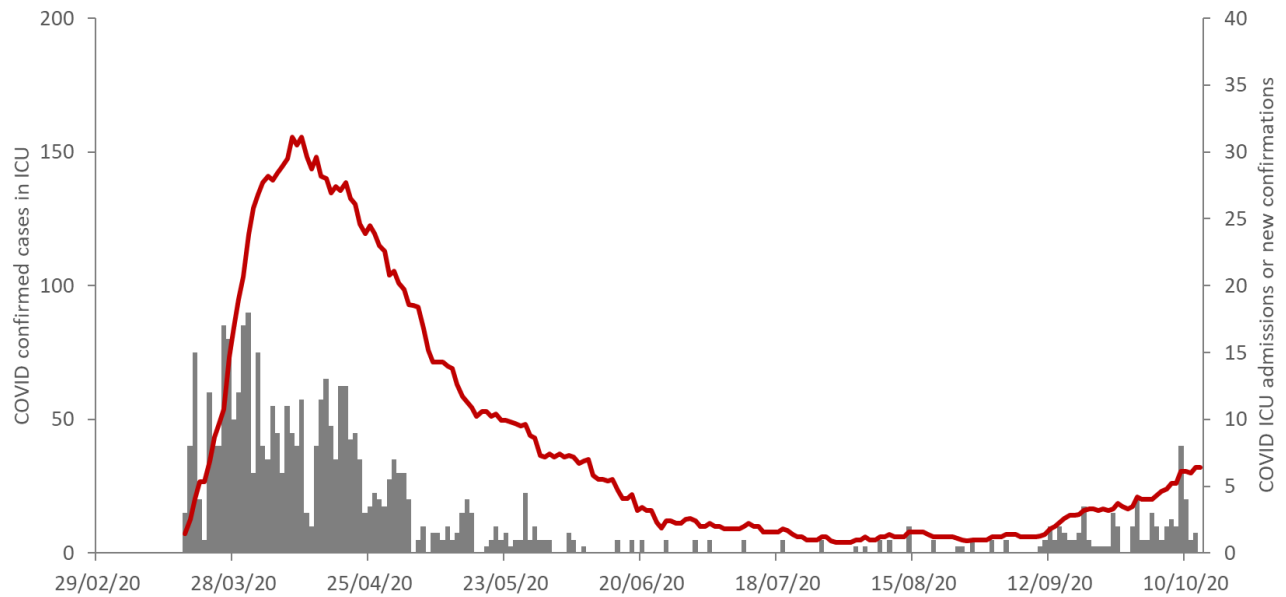
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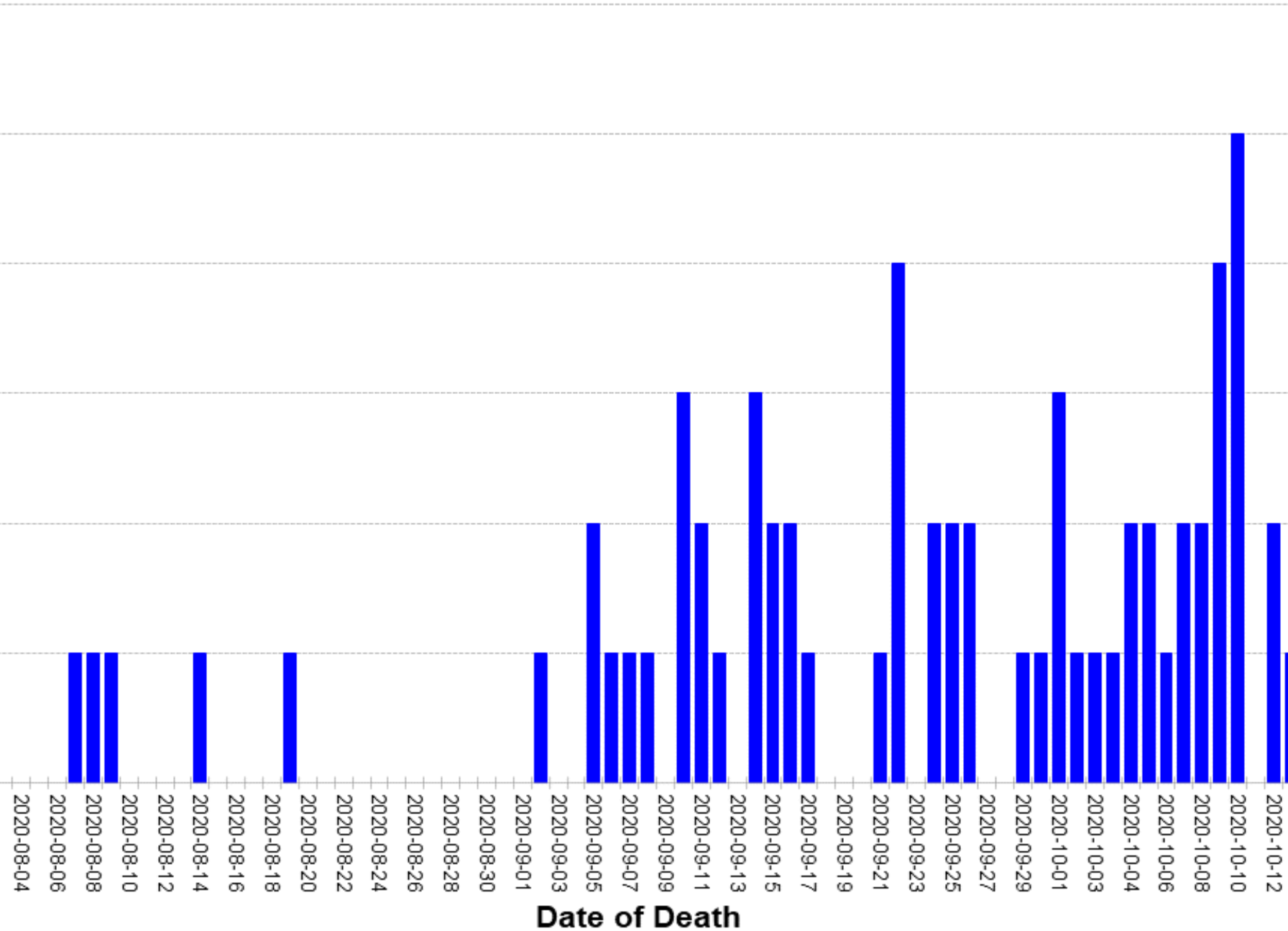
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Hospitalisations and admissions to CCU are increasing



Deaths by date of death



- 5 deaths in August
- 32 deaths in September
- 25 deaths in October to date

- 19 deaths (17 in confirmed cases) in past 7 days to midnight 13/10/20
- Deaths related to COVID-19 occurred in 12 out of the first 13 days of October

Healthcare workers



- 493 cases in last 14 days (5% cases)
- 79% are female
- 23% are health care assistant; 21% nurse
- 21% healthcare acquired (17% staff, 4% patient)
- 24% nursing homes; 26% acute hospitals

Europe had the highest weekly incidence of COVID-19 cases since the beginning of the pandemic with almost 700 000 new cases reported

Last week, **cases and deaths increased by 34% and 16% respectively** in comparison to the previous week

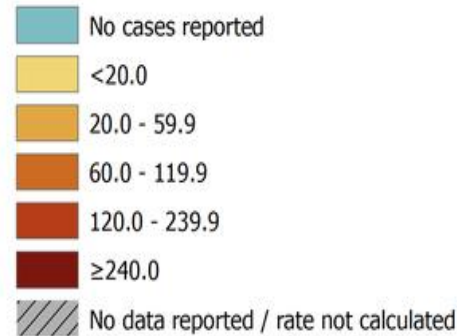
The Region is the second most active, contributing ~third (n=694,275, 31%) of new cases reported globally

The **UK, France, Russia and Spain** account for over half of all new cases reported in the region (n= 355,455, 51%)

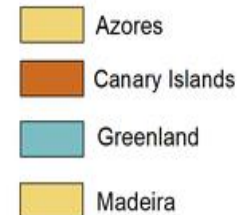
The majority of the countries in the region self-characterise their current transmission pattern as community transmission or clusters of cases



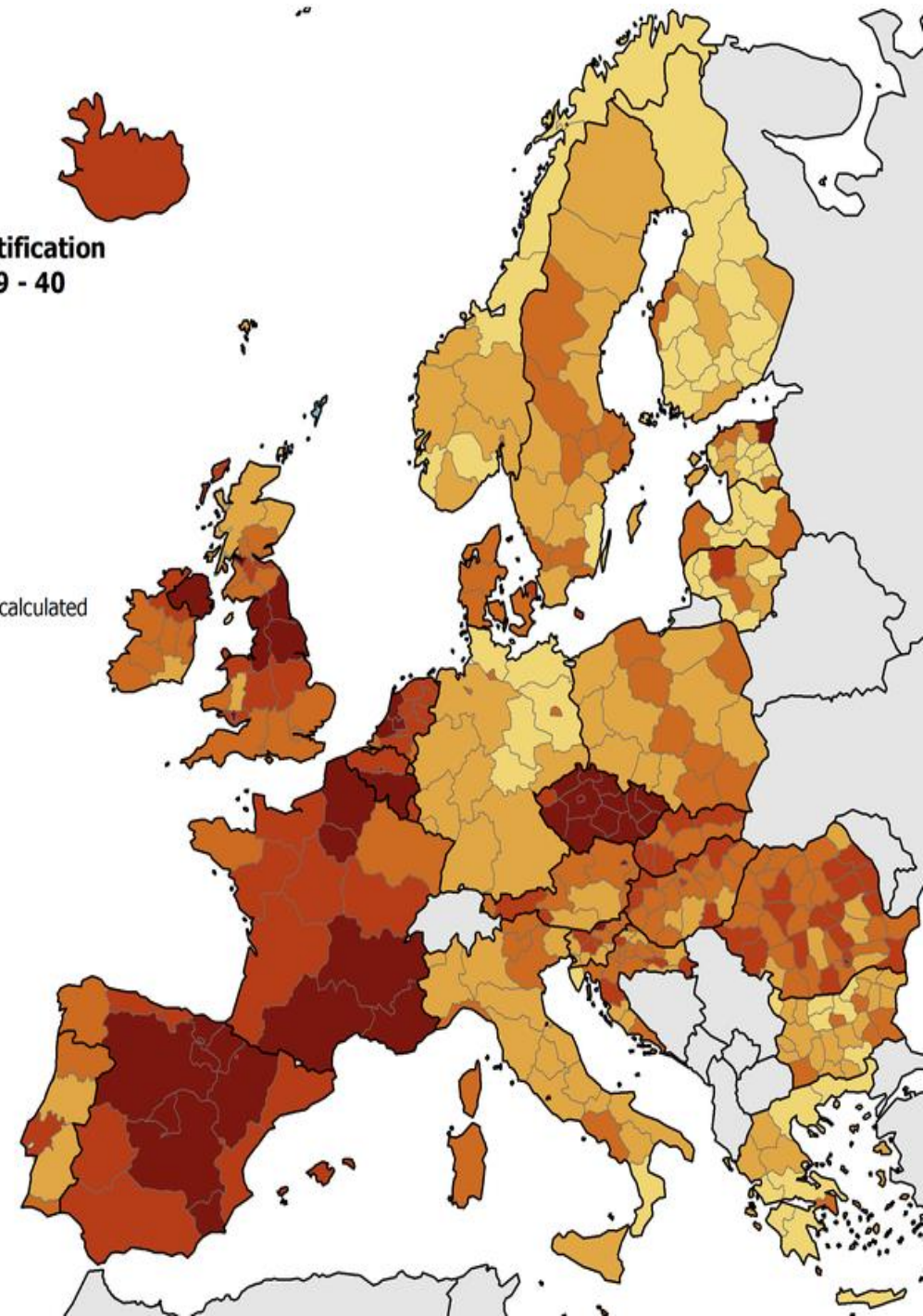
14-day COVID-19 case notification rate per 100 000 weeks 39 - 40



Regions not visible in the main map extent



Countries not visible in the main map extent



Laboratory Completed Tests during Last 7 Days (07 Oct - 13 Oct 2020) by LGD

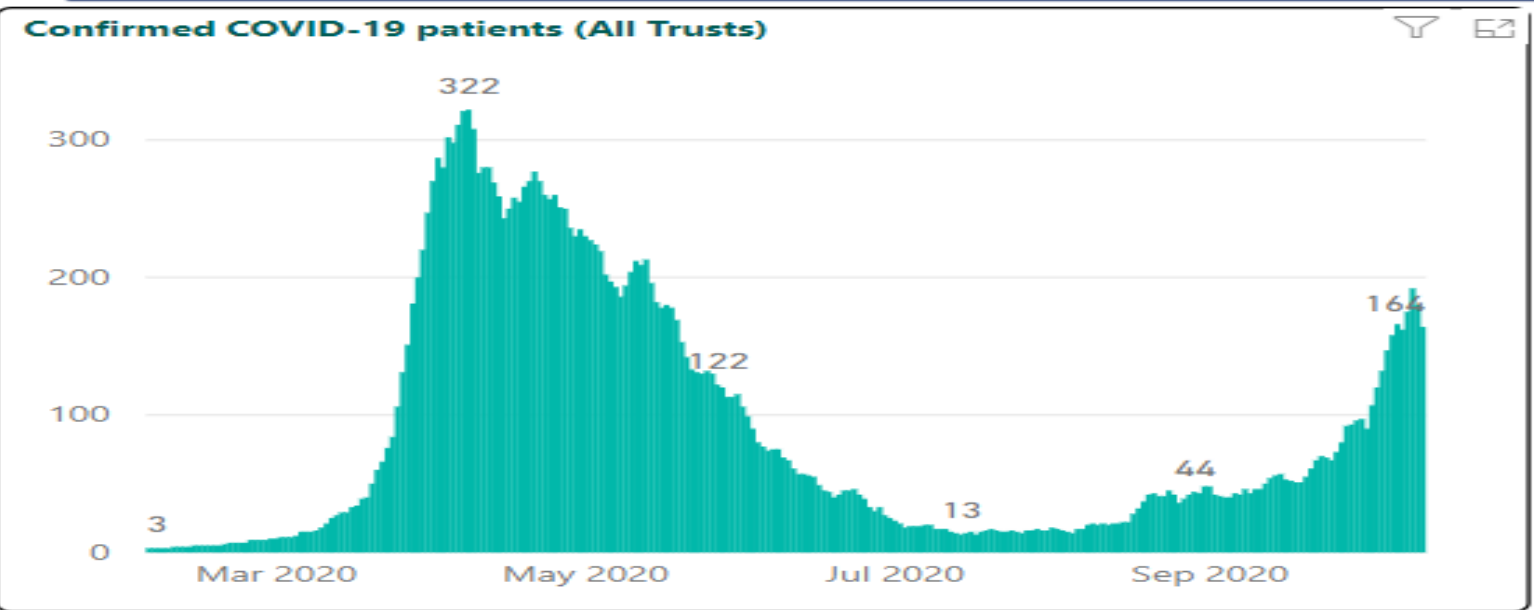
Local Government District	+ve Cases Last 7 Days	Last 7 Day Rate per 100K	Individuals Tested Last 7 Days
Antrim and Newtownabbey	392	274.8	3,633
Ards and North Down	233	144.8	3,127
Armagh City, Banbridge and Crai...	348	162.9	4,657
Belfast	1,659	486.2	11,124
Causeway Coast and Glens	336	232.9	3,212
Derry City and Strabane	1,494	991.6	7,371
Fermanagh and Omagh	272	232.8	2,933
Lisburn and Castlereagh	402	276.9	3,281
Mid and East Antrim	147	106.1	2,152
Mid Ulster	683	463.0	4,464
Newry, Mourne and Down	594	329.7	5,005
Not Known	133		1,306
Total	6,693	355.7	52,265

Monaghan 211.8/100,000 (148)

Donegal 167.1/100,000 (186)

Louth 103.2/100,000 (51)

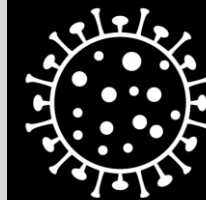
land = 118.7/100,000 (72)



106 ICU Beds - 24 COVID
 80 Total Beds - 3,198 (87%) Occupied - 163 COVID

Estimates of effective reproduction (R)

Reproduction number and growth rate appear to be increasing, especially outside Dublin. Our best estimate at this time is that R for the country as a whole is approximately 1.4. It is possible that reproduction number for Dublin is closer to 1.0, but that reproduction number for the rest of the country is significantly higher, perhaps as high as 1.6 and 1.8



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Method	Estimate	95% confidence interval
SEIR model-inferred	1.84	1.58 – 1.2.16
Bayesian model	1.32	0.70 – 2.86
Time-dependent R	1.33	1.23 – 1.42
GAM estimate 6 Oct 2020	1.38	1.10 – 1.66
GAM estimate 13 Oct 2020	1.41	0.99 – 1.83

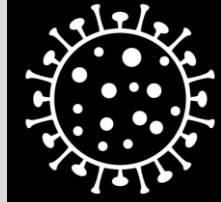
Estimates generated 13 October 2020, refer to IEMAG technical notes for methodology. Estimates are unreliable when case numbers are low or variable. Time-dependent R estimates relate to infectious events approximately two weeks ago. GAM is best estimate for current R. The estimate of R is influenced by different patterns of transmission in large outbreaks, smaller clusters, and individual transmission.



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Expected severity and mortality

Given the hospital admission and mortality rates experienced since July 2020, for every 1000 cases we should expect 35-45 hospital admissions, 5-7 ICU admissions, and 4-6 deaths, depending on the incidence of disease in older persons



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1. Expected severity and mortality if age distribution of cases continues with lower incidence in those over 65.

Age	% cases	Cases	Hospital admissions	ICU admissions	Deaths
0-19	19%	192	2.5	0.1	0.0
20-39	42%	425	5.3	0.2	0.1
40-59	26%	257	9.0	1.6	0.5
60-64	3.8%	38	2.6	0.6	0.1
65-69	3.0%	30	2.5	0.6	0.0
70-74	2.1%	21	4.4	1.2	0.8
75-79	1.3%	13	3.4	0.5	0.8
80-84	1.1%	11	2.8	0.0	0.6
85+	1.2%	12	3.7	0.0	1.0
		1000	36	4.8	3.9

2. Expected severity and mortality if age distribution of cases matches the age distribution of the population

Age	% cases	Cases	Hospital admissions	ICU admissions	Deaths
0-19	27%	275	3.6	0.1	0.0
20-39	28%	278	3.4	0.1	0.1
40-59	26%	263	9.2	1.7	0.6
60-64	5.0%	50	3.4	0.8	0.1
65-69	4.4%	44	3.8	0.9	0.0
70-74	3.4%	34	7.1	2.0	1.2
75-79	2.4%	24	6.2	0.9	1.5
80-84	1.7%	17	4.2	0.0	1.0
85+	1.4%	14	4.5	0.0	1.2
		1000	45	6.4	5.6

The percentage of those with confirmed SARS-CoV-2 infection notified were admitted to hospital, admitted to intensive care, and who died. This analysis excludes healthcare workers and those cases associated with outbreaks in long-term residential care, in order to be representative of the wider population.



Rapidly deteriorating disease profile nationally

All parts of the country experiencing uncontrolled, widespread transmission which is increasing exponentially

Projections indicate that situation will deteriorate further nationally

Positivity rates continuing to increase

If there is no change in the rate of viral transmission we could have 1,800-3,300 cases per day by 31st October

- **1,800 cases/day if R1.4**
- **2,500 cases/day if R 1.6**
- **3,300 cases/day if R 1.8**

Situation in NI is grave - while the current profile in border counties is of concern, neither the trajectory nor the rate of change of disease in these counties is significantly different in epidemiological terms from other counties

Indicators of disease severity all deteriorating (despite being subject to substantial lag) – hospitalisations, critical care, mortality

Resumption/continuation of non-Covid health services at immediate risk

Impact on residents of nursing homes, other residential care facilities and other vulnerable groups increasing