An Roinn Sláinte
Department of Health

COVID Update

17th December 2021

Dr Tony Holohan
Chief Medical Officer
Department of Health

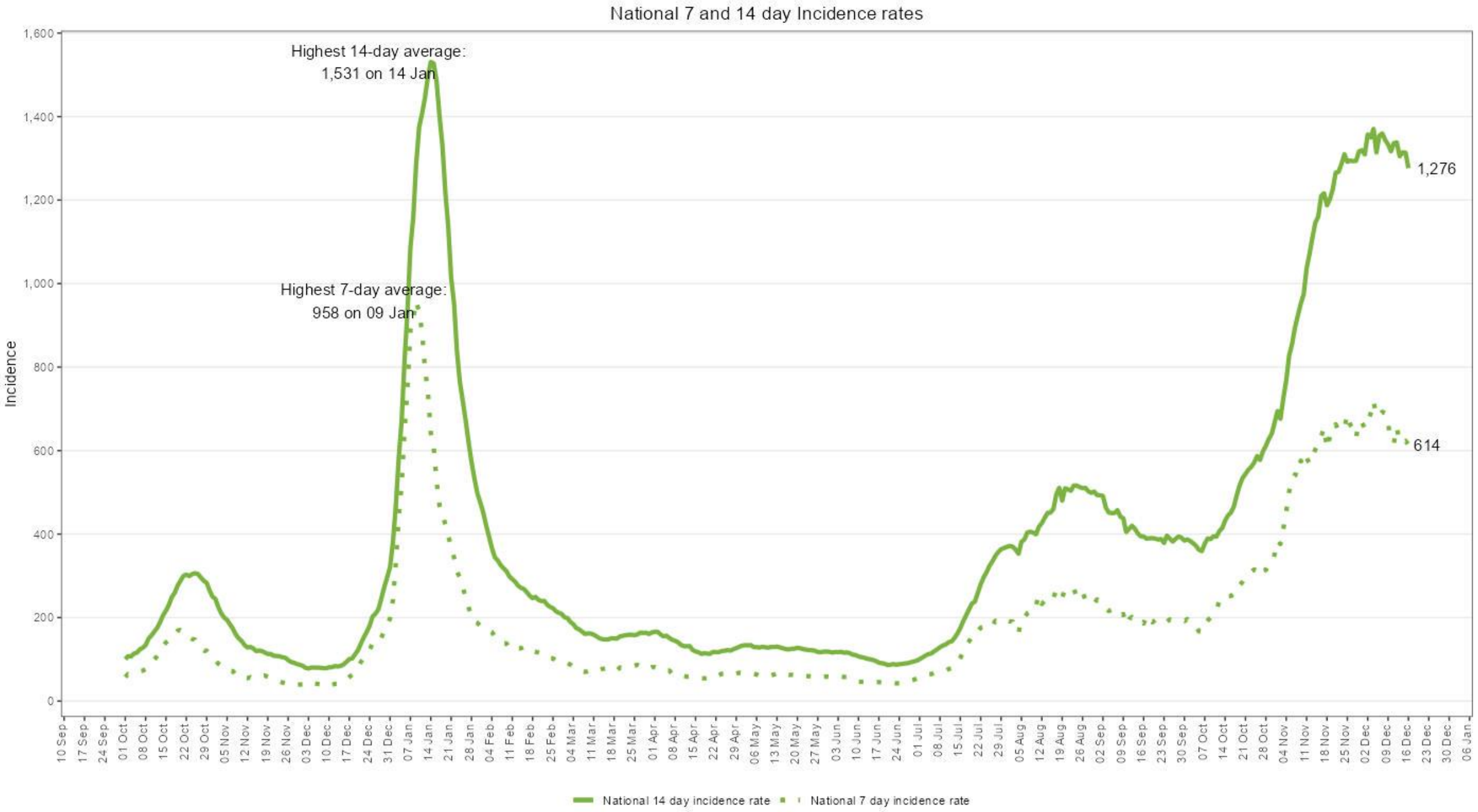
Current situation

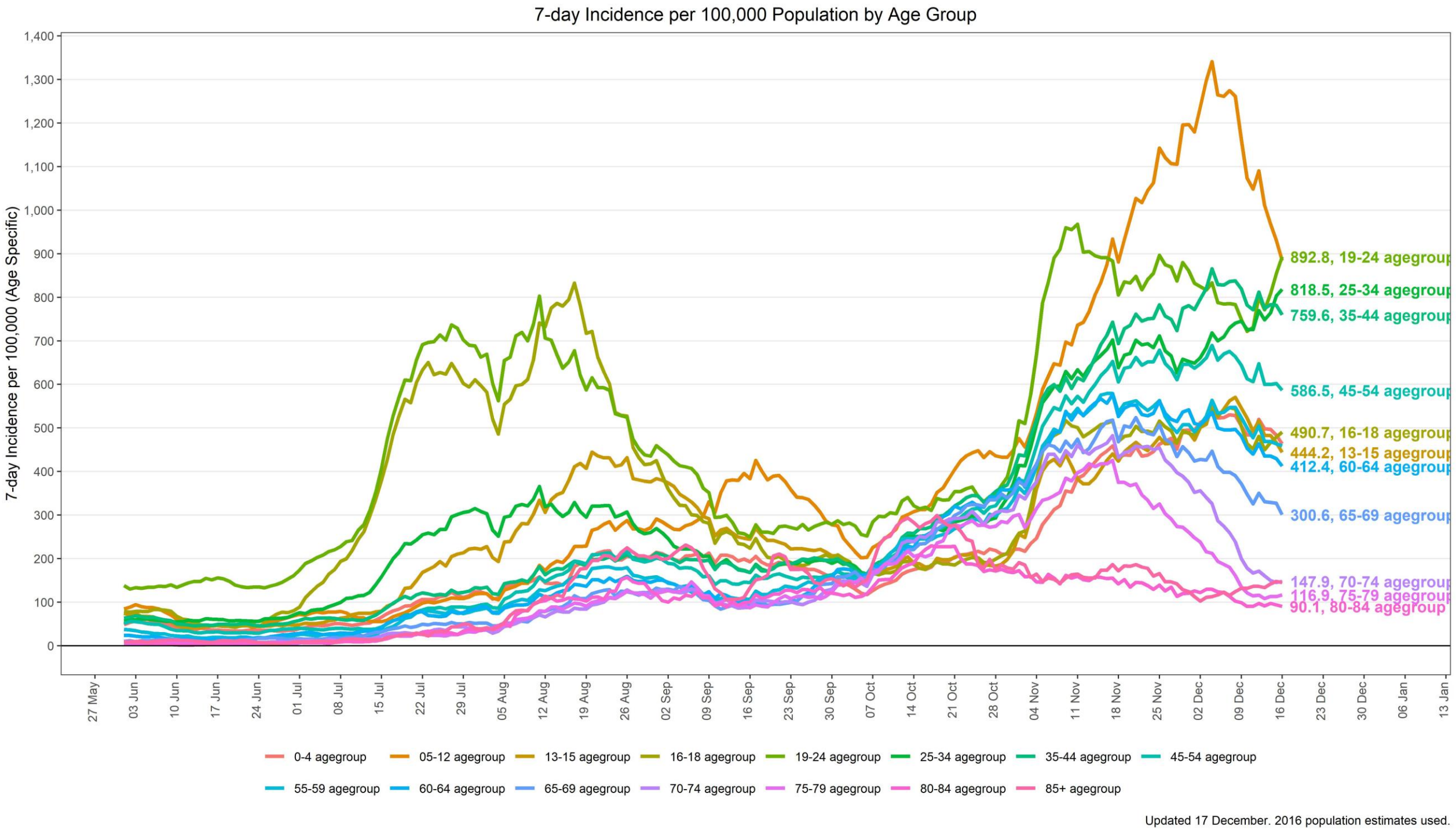
	01-Oct	26-Oct (2nd wave peak 14 day inc.)	01-Dec	01-Jan	14-Jan (3rd wave peak 14 day inc.)	20-Jun (lowest 2021 14 day inc.)	10-Dec (1 week ago)	17-Dec
14-day incidence	96.08	306.37	86.88	320.57	1494.23	89.59	1333.36	1276.37
5-day average cases	407.0	919.2	260.8	1476.4	4458.0	313.8	4158.2	4112.0
Total weekly cases	2607	7000	1892	9416	35362	2070	31553	29226

	01-Oct	26-Oct (2nd wave peak 14 day inc.)	01-Dec	01-Jan	14-Jan (3rd wave peak 14 day inc.)	20-Jun (lowest 2021 14 day inc.)	10-Dec (1 week ago)	17-Dec
No. Hospital (8.A.M)	122	344	224	508	1792	49	512	420
No. in ICU (11.30 A.M)	20	39	30	42	176	15	110	108

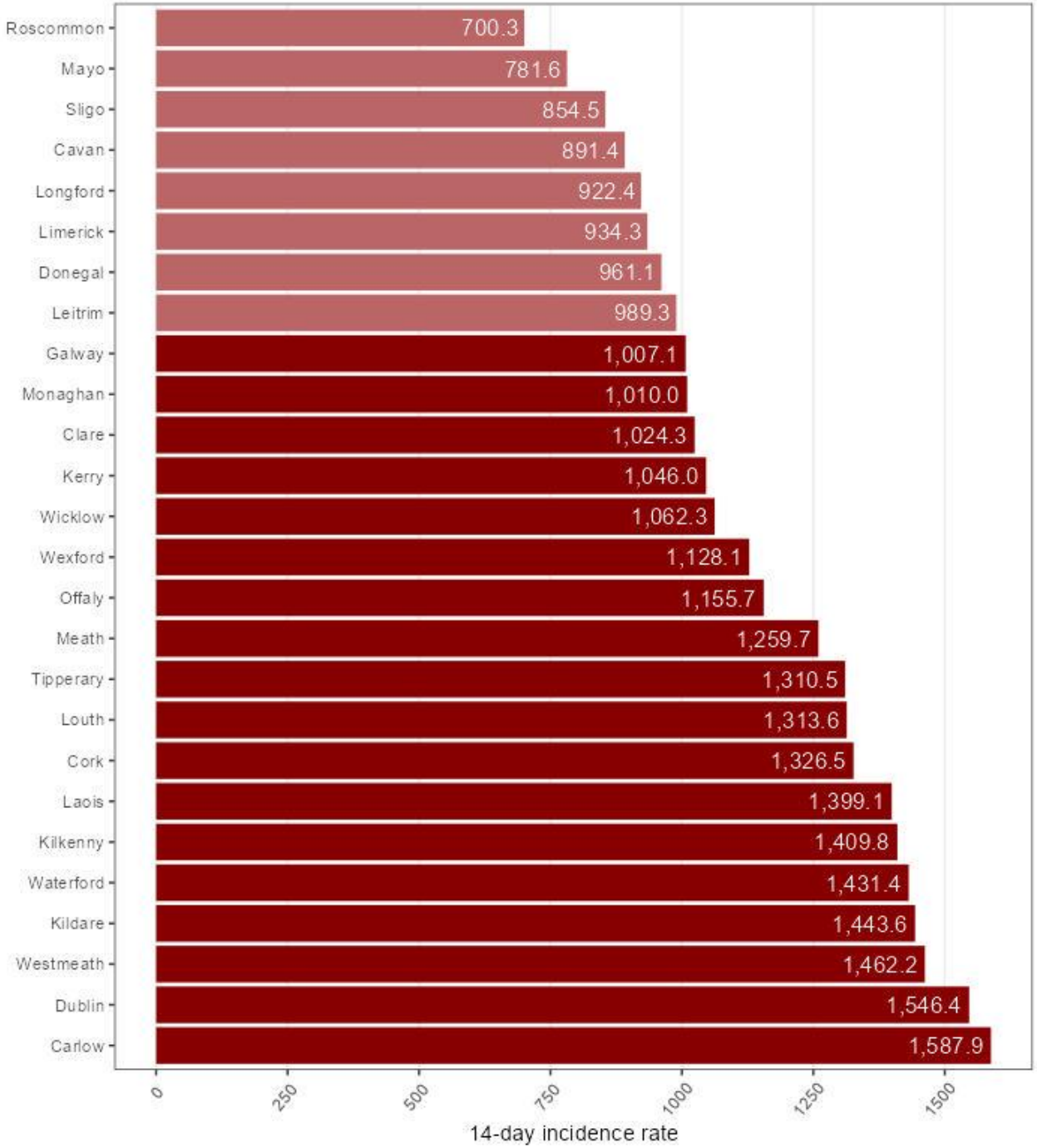
	MAY21	JUN21	JUL21	AUG21	SEP21	OCT21	NOV21	DEC21	Unknown	Total since Mar2020
Reported in latest week (to 15/12/2021)	0	0	0	0	1	4	3	39	0	47
Total	43	20	22	87	178	211	217	57	28	5,835

- Data refers to latest available information at 11am 17th Dec

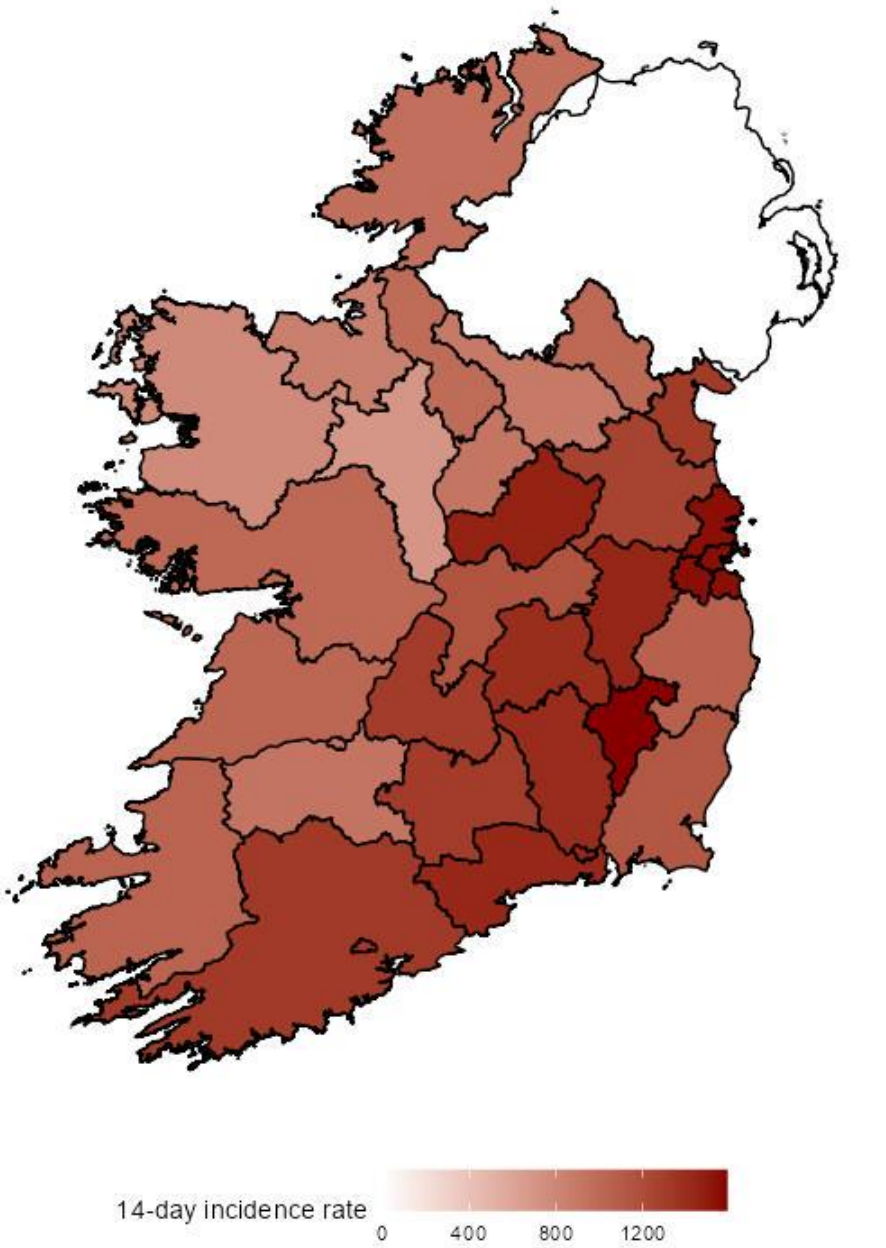

National 7 and 14 day Incidence rates
Highest 14-day average:
1,531 on 14 Jan
Highest 7-day average:
958 on 09 Jan
1,276
614
Incidence
1,600
1,400
1,200
1,000
800
600
400
200
0
10 Sep
17 Sep
24 Sep
01 Oct
08 Oct
15 Oct
22 Oct
29 Oct
05 Nov
12 Nov
19 Nov
26 Nov
03 Dec
10 Dec
17 Dec
24 Dec
31 Dec
07 Jan
14 Jan
21 Jan
28 Jan
04 Feb
11 Feb
18 Feb
25 Feb
04 Mar
11 Mar
18 Mar
25 Mar
01 Apr
08 Apr
15 Apr
22 Apr
29 Apr
06 May
13 May
20 May
27 May
03 Jun
10 Jun
17 Jun
24 Jun
01 Jul
08 Jul
15 Jul
22 Jul
29 Jul
05 Aug
12 Aug
19 Aug
26 Aug
02 Sep
09 Sep
16 Sep
23 Sep
30 Sep
07 Oct
14 Oct
21 Oct
28 Oct
04 Nov
11 Nov
18 Nov
25 Nov
02 Dec
09 Dec
16 Dec
23 Dec
30 Dec
06 Jan
National 14 day incidence rate
National 7 day incidence rate
Updated 17 December

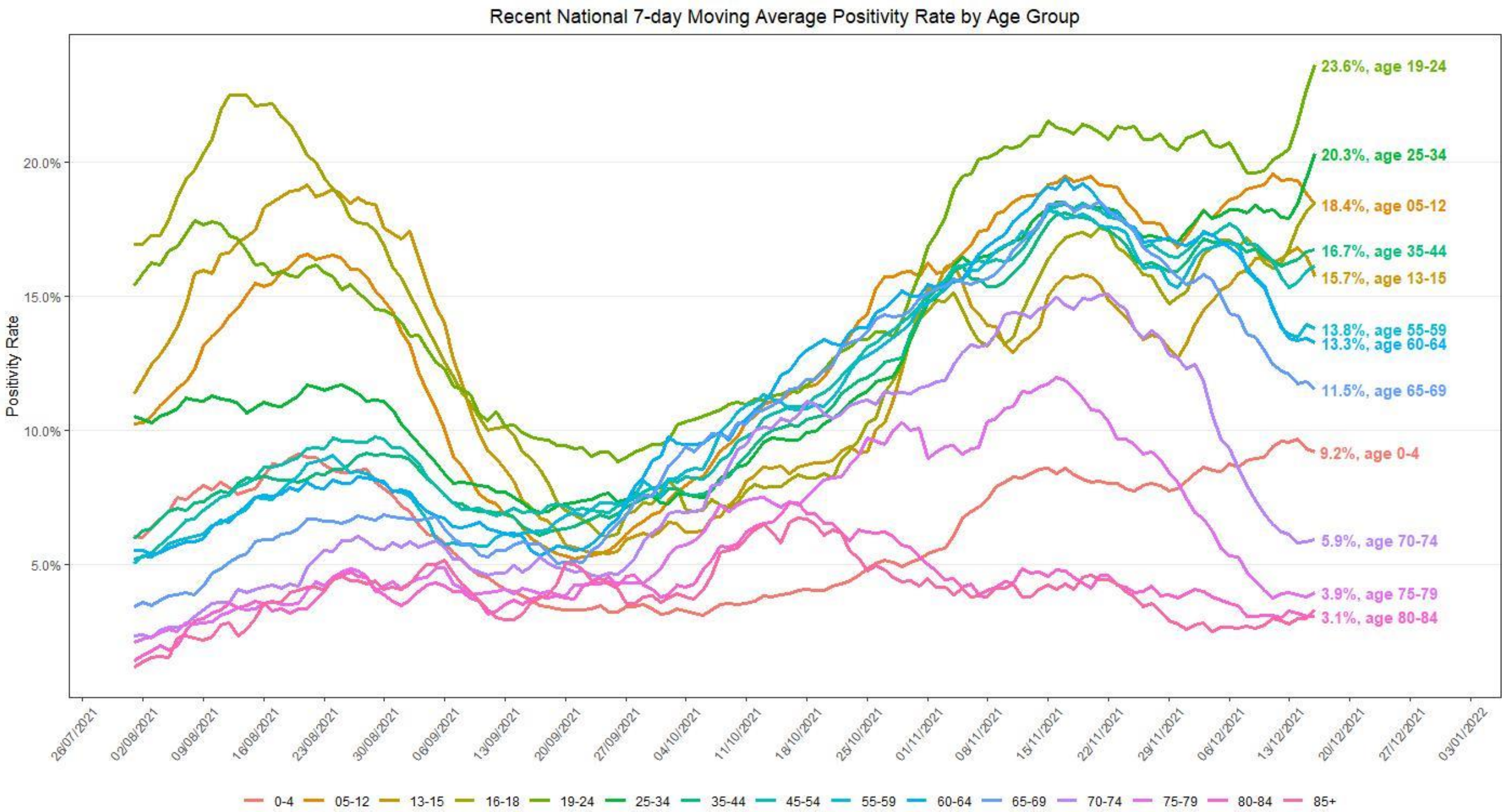

7-day Incidence per 100,000 Population by Age Group
7-day Incidence per 100,000 (Age Specific)
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
27 May
03 Jun
10 Jun
17 Jun
24 Jun
01 Jul
08 Jul
15 Jul
22 Jul
29 Jul
05 Aug
12 Aug
19 Aug
26 Aug
02 Sep
09 Sep
16 Sep
23 Sep
30 Sep
07 Oct
14 Oct
21 Oct
28 Oct
04 Nov
11 Nov
18 Nov
25 Nov
02 Dec
09 Dec
16 Dec
23 Dec
30 Dec
06 Jan
13 Jan
892.8, 19-24 agegroup
818.5, 25-34 agegroup
759.6, 35-44 agegroup
586.5, 45-54 agegroup
490.7, 16-18 agegroup
444.2, 13-15 agegroup
412.4, 60-64 agegroup
300.6, 65-69 agegroup
147.9, 70-74 agegroup
116.9, 75-79 agegroup
90.1, 80-84 agegroup
0-4 agegroup
05-12 agegroup
13-15 agegroup
16-18 agegroup
19-24 agegroup
25-34 agegroup
35-44 agegroup
45-54 agegroup
55-59 agegroup
60-64 agegroup
65-69 agegroup
70-74 agegroup
75-79 agegroup
80-84 agegroup
85+ agegroup
Updated 17 December. 2016 population estimates used.

14-day incidence rate per 100,000 population based on CIDR

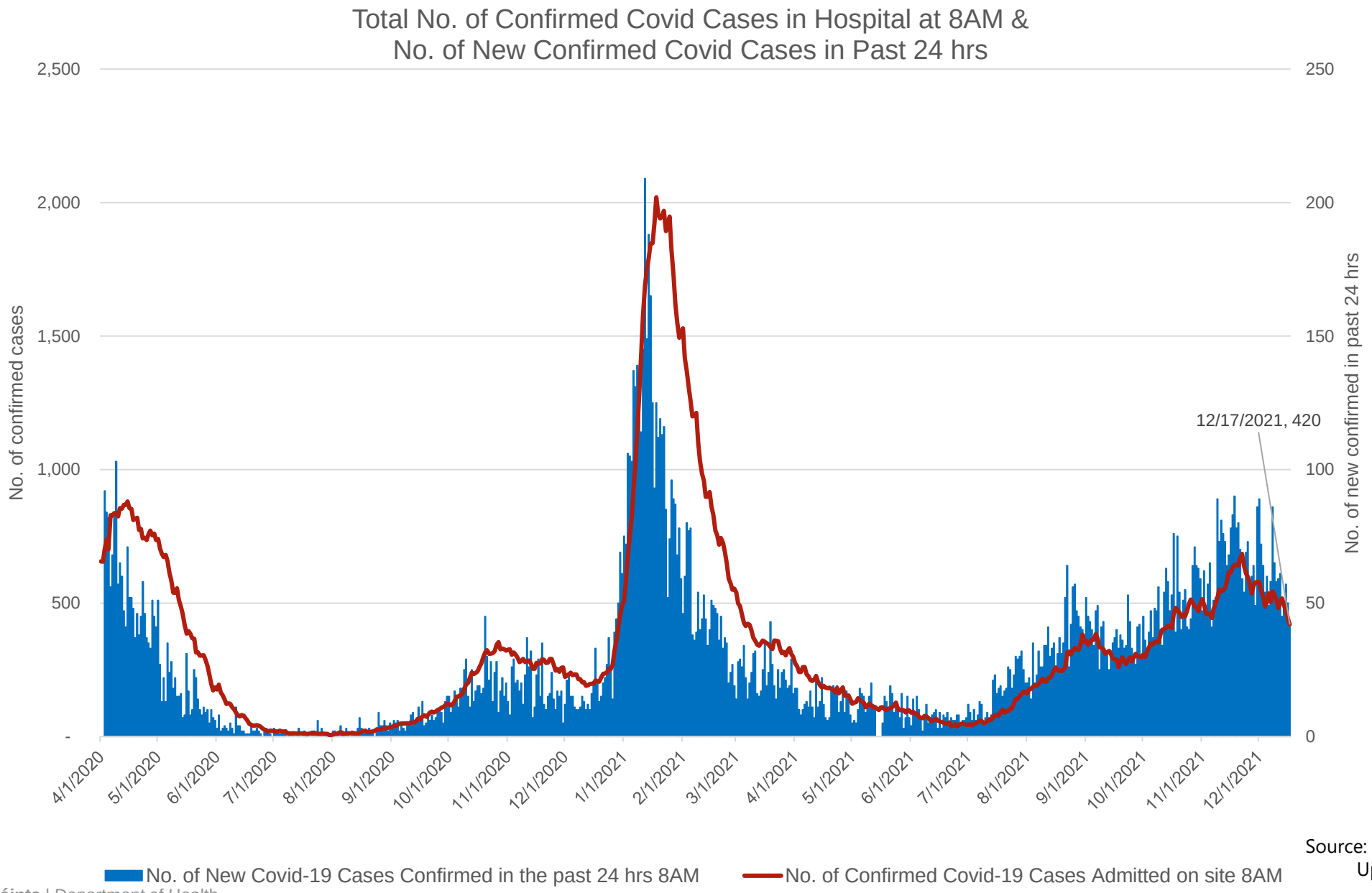


14-day incidence rate per 100,000 population
(cases in 14 days to midnight 16/12/2021)





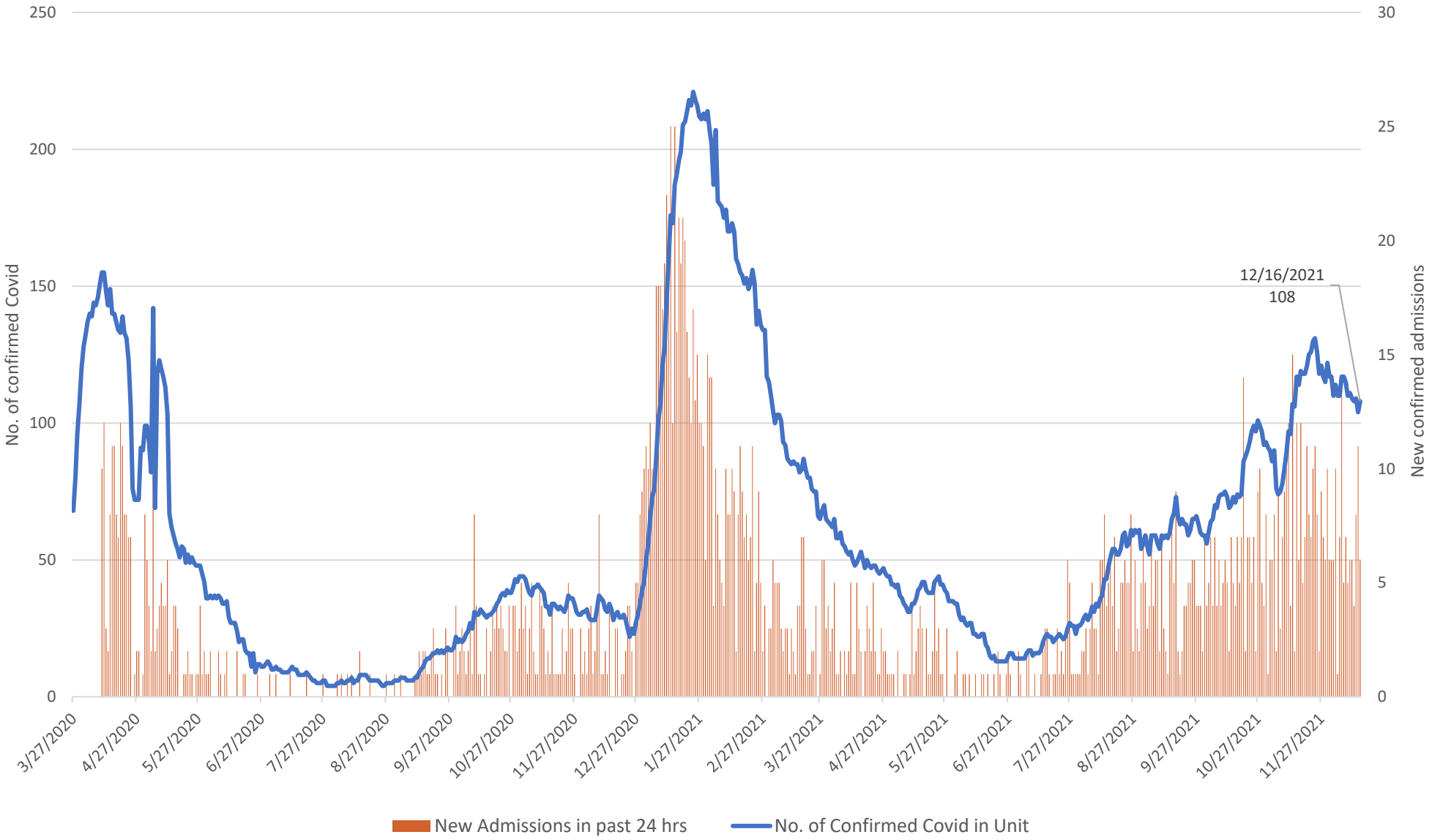
Updated 17 December. Source: CRM data, HSE Contact and Tracing Team.
Refers to total results excluding private testing. Data on acute hospitals limited between 14/05/2021-06/07/2021



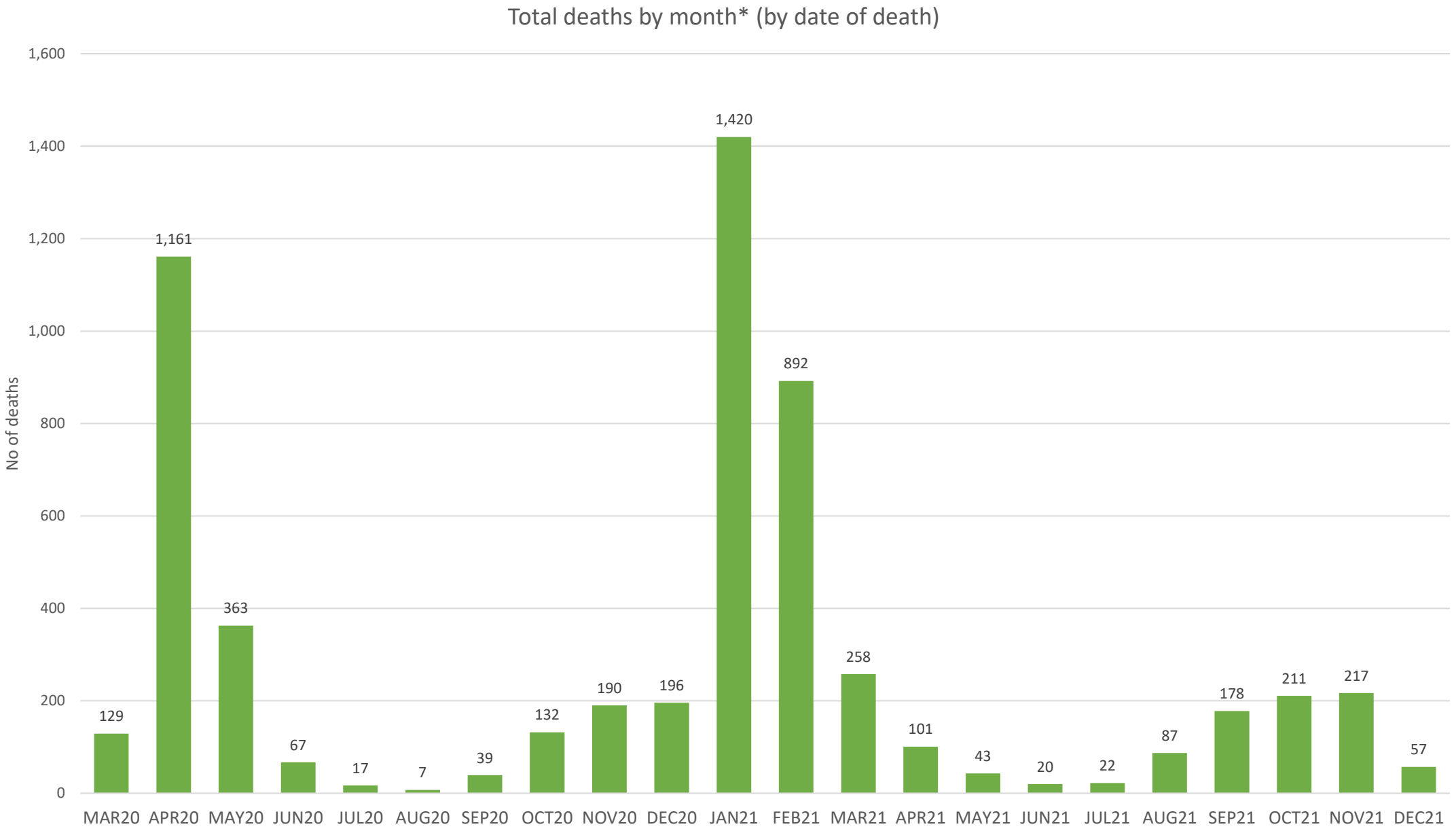
Source: HSE Special Delivery Unit
Updated 17/12/2021

Total No. of Confirmed Covid Cases in ICU at 11.30AM & No. of New Confirmed Covid Admissions to ICU in past 24 hrs

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

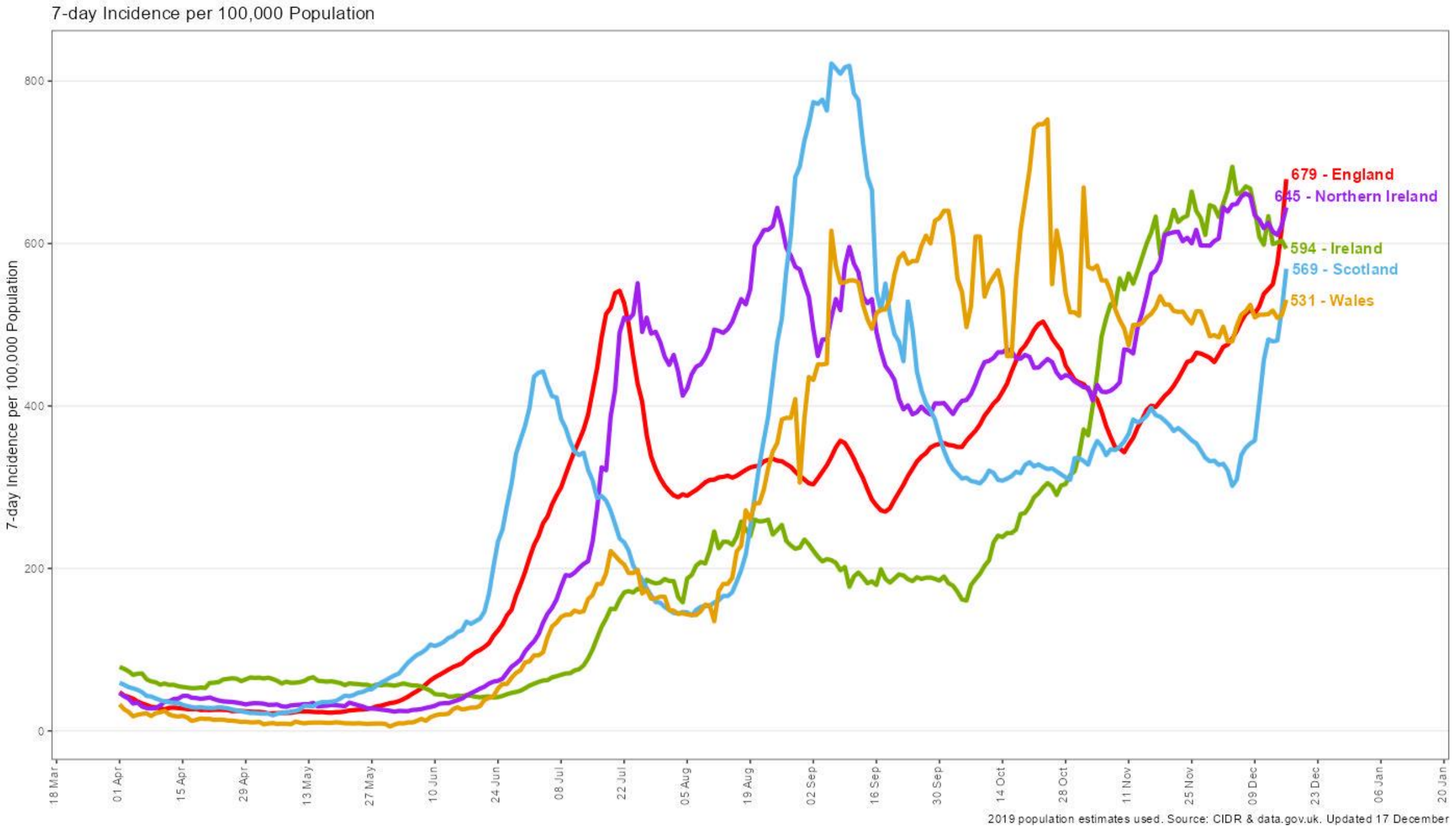


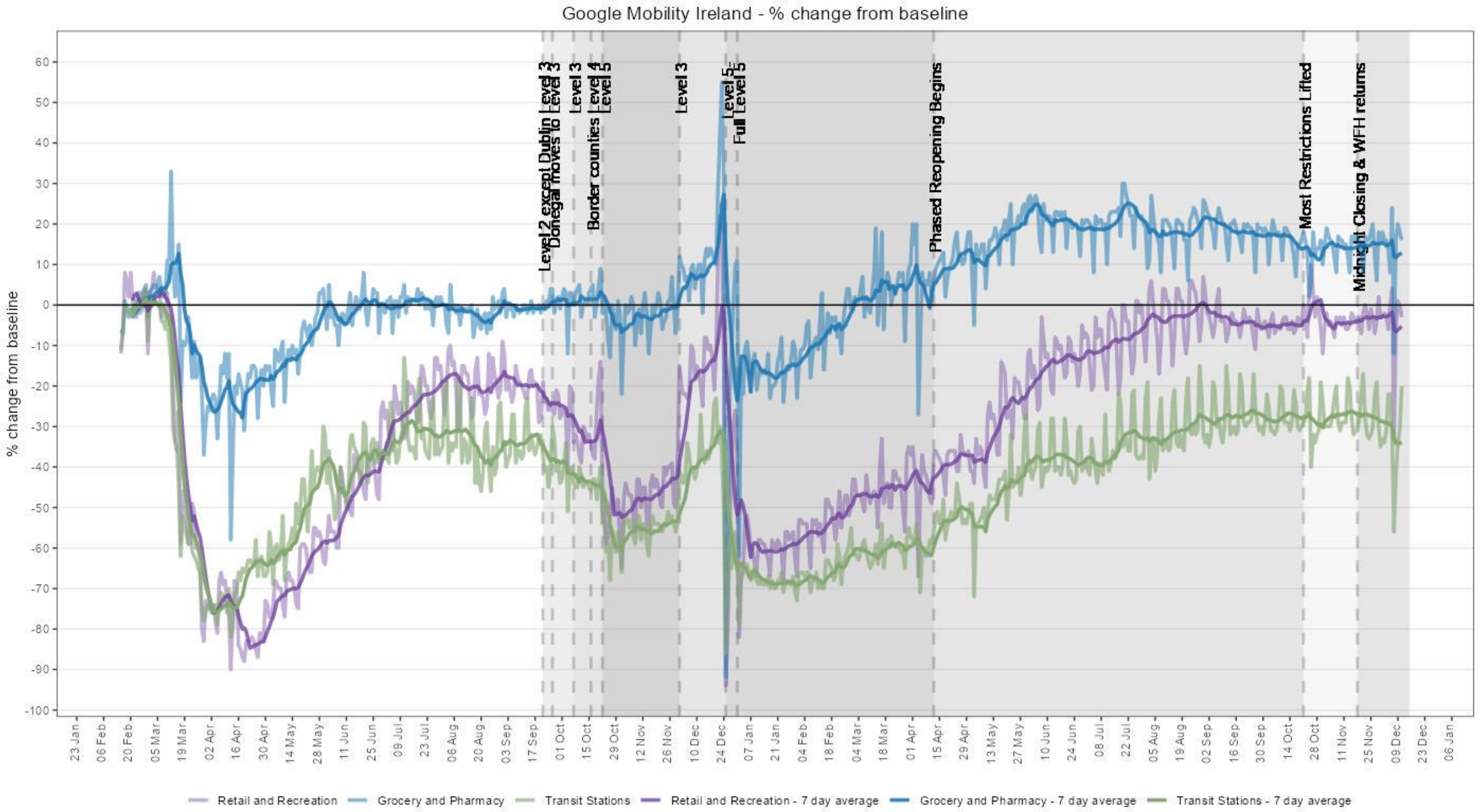
Source: NOCA, ICU-BIS
Updated 16/12/2021

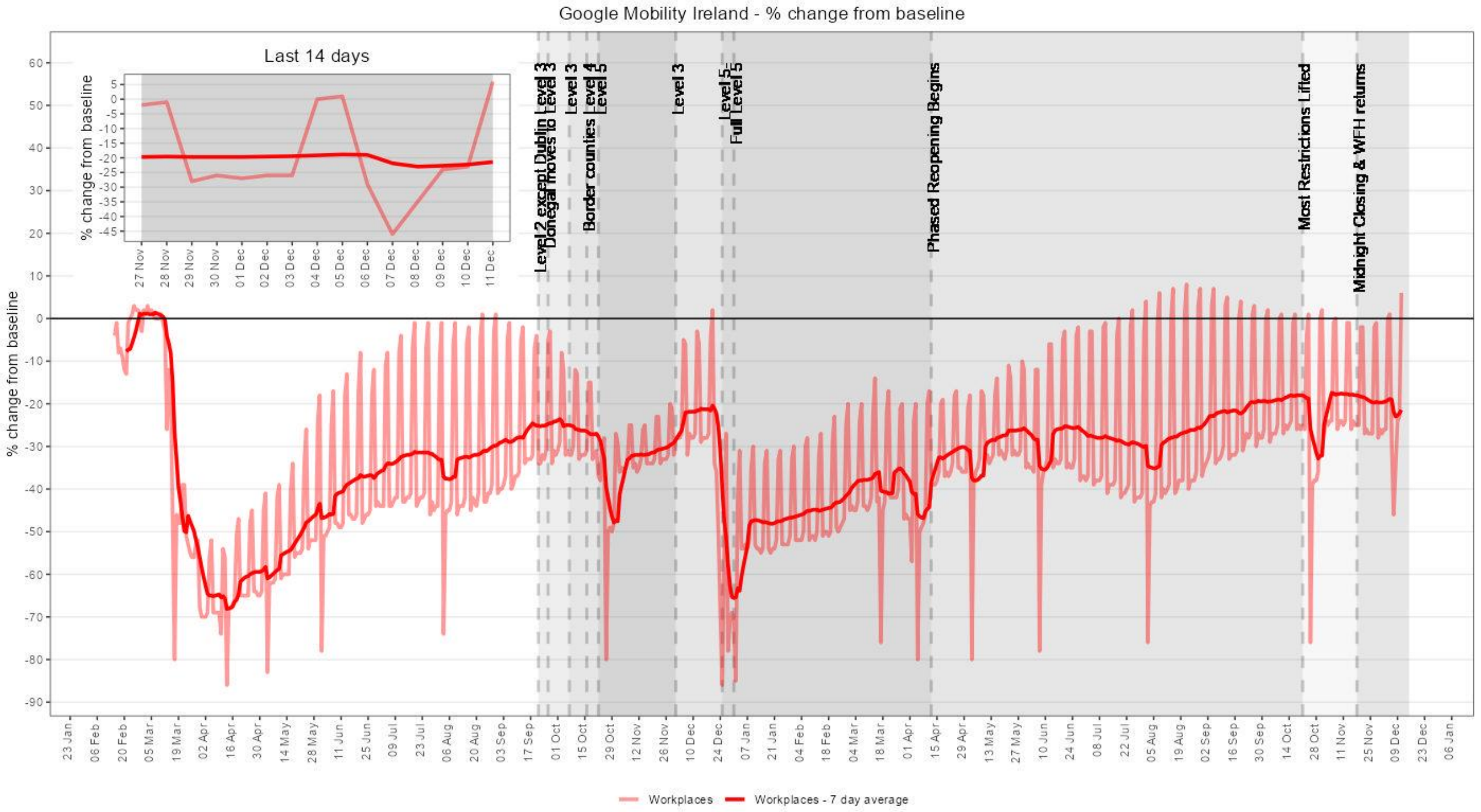


Source: HPSC. Updated 15/12/2021

* where date of death is known


7-day Incidence per 100,000 Population
7-day Incidence per 100,000 Population
800
600
400
200
0
679 - England
645 - Northern Ireland
594 - Ireland
569 - Scotland
531 - Wales
18 Mar
01 Apr
15 Apr
29 Apr
13 May
27 May
10 Jun
24 Jun
08 Jul
22 Jul
05 Aug
19 Aug
02 Sep
16 Sep
30 Sep
14 Oct
28 Oct
11 Nov
25 Nov
09 Dec
23 Dec
06 Jan
20 Jan
2019 population estimates used. Source: CIDR & data.gov.uk. Updated 17 December

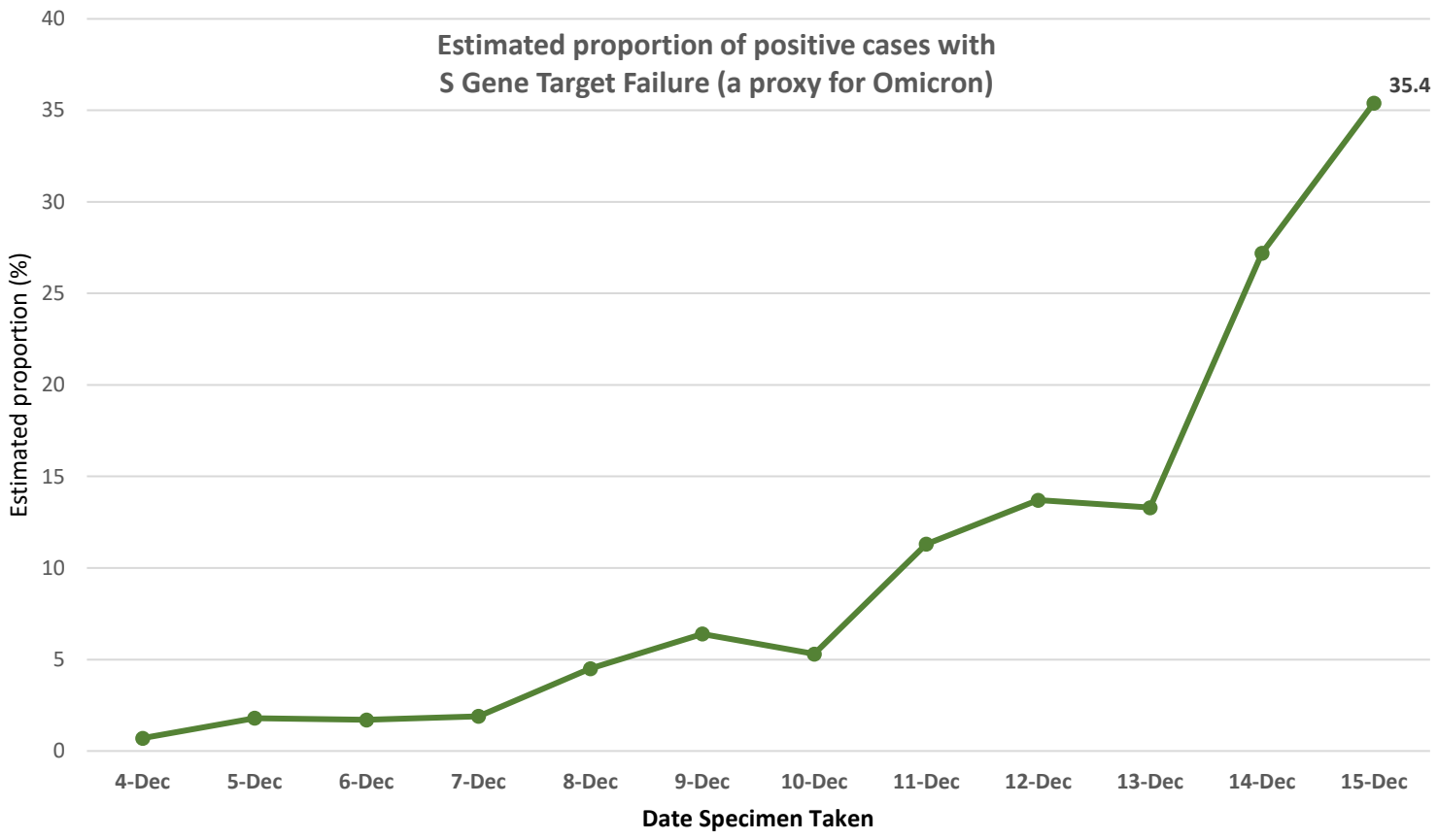

Google Mobility Ireland - % change from baseline
% change from baseline
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Level 2 except Dublin
Donegal moves to Level 3
Level 3
Border counties Level 4
Level 5
Level 3
Level 5
Level 5
Full Level 5
Phased Reopening Begins
Most Restrictions Lifted
Midnight Closing & WFH returns
23 Jan
06 Feb
20 Feb
05 Mar
19 Mar
02 Apr
16 Apr
30 Apr
14 May
28 May
11 Jun
25 Jun
09 Jul
23 Jul
06 Aug
20 Aug
03 Sep
17 Sep
01 Oct
15 Oct
29 Oct
12 Nov
26 Nov
10 Dec
24 Dec
07 Jan
21 Jan
04 Feb
18 Feb
04 Mar
18 Mar
01 Apr
15 Apr
29 Apr
13 May
27 May
10 Jun
24 Jun
08 Jul
22 Jul
05 Aug
19 Aug
02 Sep
16 Sep
30 Sep
14 Oct
28 Oct
11 Nov
25 Nov
09 Dec
23 Dec
06 Jan
Retail and Recreation
Grocery and Pharmacy
Transit Stations
Retail and Recreation - 7 day average
Grocery and Pharmacy - 7 day average
Transit Stations - 7 day average
Updated 11 December



Updated 11 December

Ireland – Current Situation

Proportion of cases SGTF approximately 35% and rising exponentially



EU's Health Security Committee and WHO

The EU's Health Security Committee and the WHO published papers related to Omicron on the 8th and 10th December

Both reports note that increased transmission of Omicron, with similar or even lower severity than Delta could pose **overwhelming demands on health care systems and lead to significant morbidity**

While recognising the uncertainty relating to Omicron, a **multi-layered approach is recommended** with measures including:

- Increased testing capacities to rapidly identify Omicron, enhanced contact tracing measures and stricter management of contacts
- Travel measures including entry/exit testing, possibly combined with quarantine measures
- The use of well-fitting masks, physical distancing, ventilation of indoor spaces, crowd avoidance, and hand hygiene with particular emphasis on **avoiding the occurrence of possible 'super spreader events', such as sport events, concerts and large gatherings in the context of year-end festivities**
- Stepping up efforts to
  - **Reinforce vaccination efforts with the utmost priority towards the full vaccination of the unvaccinated population**
  - Ensuring **clear, transparent and coherent public communication with targeted messages**

Possibility of further spread: **Very High**
Potential impact of further spread: **Very High**
Overall risk to public health: **Very High**

Serious concerns due to preliminary reports of significant growth advantage and potential immune escape versus Delta

Community transmission already ongoing in EU/EEA and further rapid increase in Omicron cases expected in the next two months

Increased transmissibility and resulting exponential growth of cases will rapidly outweigh any benefits of a potentially reduced severity

Very likely that Omicron will cause additional hospitalisations and fatalities, in addition to those already expected with Delta. These fatalities will only be observed with delay after the Omicron VOC has become dominant

Without reduction of contact rates through the implementation of NPIs and increased booster vaccination, levels of transmission could rapidly overwhelm EU/EEA healthcare systems

Strong and immediate reductions in contact rates are required to avoid a high spike in Omicron cases and to keep COVID-related health and mortality burden manageable in the short term, even with immediate acceleration of vaccine rollout. This is particularly relevant given the upcoming period that usually involves **intergenerational mixing across different households, with the risk of super-spreading events**

Given the impending probable dominance of Omicron, **NPIs need to be further strengthened without delay**, including avoiding large public or private gatherings, encouraging use of face masks, reducing contacts between groups in social or work settings, teleworking, expanded testing and strong contact tracing

Immediate planning should be considered to increase healthcare capacity to treat the expected higher number of cases. **Hospital surge capacities should be re-assessed** according to emerging epidemiological data on the severity of Omicron

Testing of individuals with symptoms, irrespective of their vaccination status, together with isolation of those testing positive, continues to be important in limiting the spread of SARS-CoV-2

Vaccination remains a key component of the multi-layered approach needed to reduce the impact of Omicron

Risk communication activities remain vital

Omicron

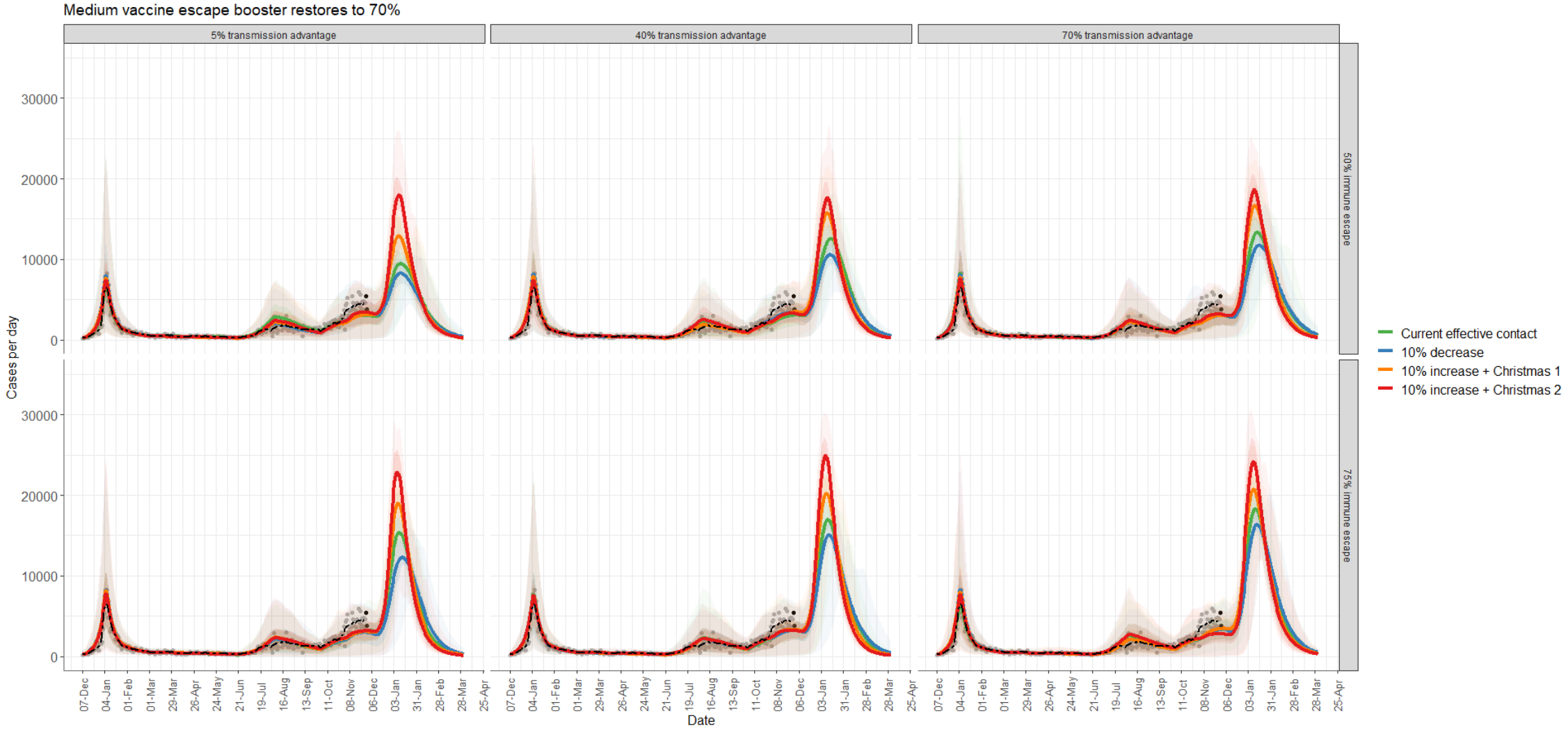
Coronavirus
COVID-19
Public Health
Advice

- Growth rates 20% - 40% per day, early growth 30% per day in Scotland, England and Denmark
- R_t between 2 and 4
  - so spreading 2-4 times faster than delta
  - two factors
    - significant immune escape (vaccines and prior infection)
    - probably some increase in transmissibility
- UK HSA preliminary data on vaccine effectiveness against symptomatic infection
  - 2-dose AZ – effectively zero
  - 2-dose Pfizer – reduced by at least 35%
  - mRNA booster restores effectiveness to at least 70%
- Reinfection rates
  - compatible with at least 50% loss in immunity against symptomatic infection due to prior infection
- Transmission advantage
  - could be marginal, best estimate is 1.4, may be higher
- Severe outcomes
  - no data on virulence – assume same as delta
  - no data on vaccine effectiveness in preventing severe outcomes – assume for now it is fully preserved

Model scenarios – symptomatic infection

A central scenario based on current UK HSA estimates of vaccine escape. The degree of social mixing over the Christmas period greatly influences the outcome.

Coronavirus **COVID-19** Public Health Advice



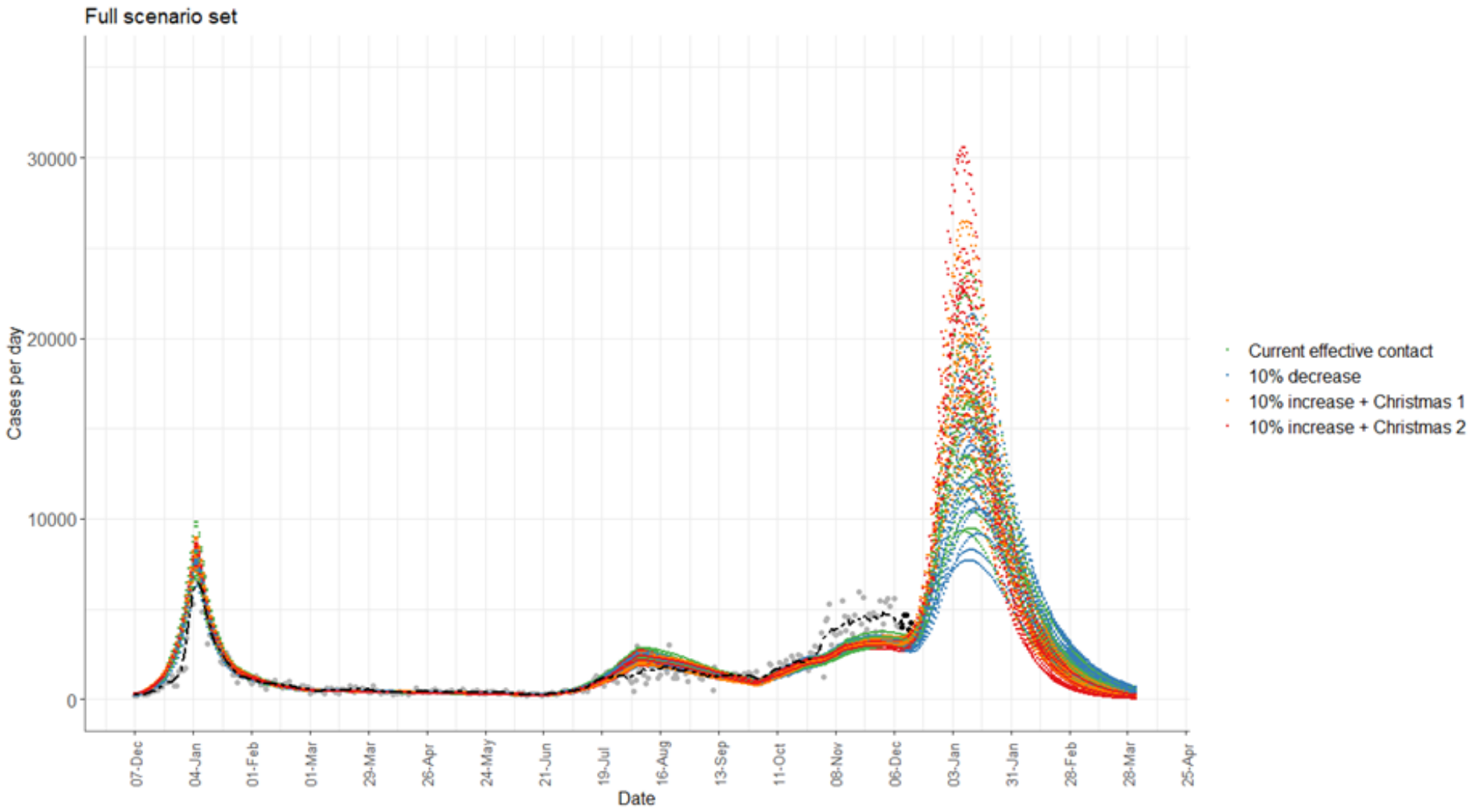
Age-cohorted SEIR model scenarios for case numbers with different levels of effective social contact, transmission advantage and immune escape for omicron. It is assumed that the primary course of an adenoviral vector vaccine has zero effectiveness against infection with omicron, the effectiveness of a primary course of mRNA vaccines is reduced 35%, and booster mRNA vaccine restores effectiveness to 70%.

Rialtas na hÉireann
Government of Ireland

Model scenarios – symptomatic infection

Full scenario set. The degree of social mixing over the Christmas period greatly influences the outcome. The more optimistic scenarios show 8-10,000 cases per day, the more pessimistic exceed 20,000 cases per day.

Coronavirus
COVID-19
Public Health
Advice



Age-cohorted SEIR model scenarios for case numbers with different levels of effective social contact, transmission advantage and immune escape for omicron. It is assumed that the primary course of an adenoviral vector vaccine has zero effectiveness against infection with omicron, the effectiveness of a primary course of mRNA vaccines is reduced 35%, and booster mRNA vaccine restores effectiveness to 70%.

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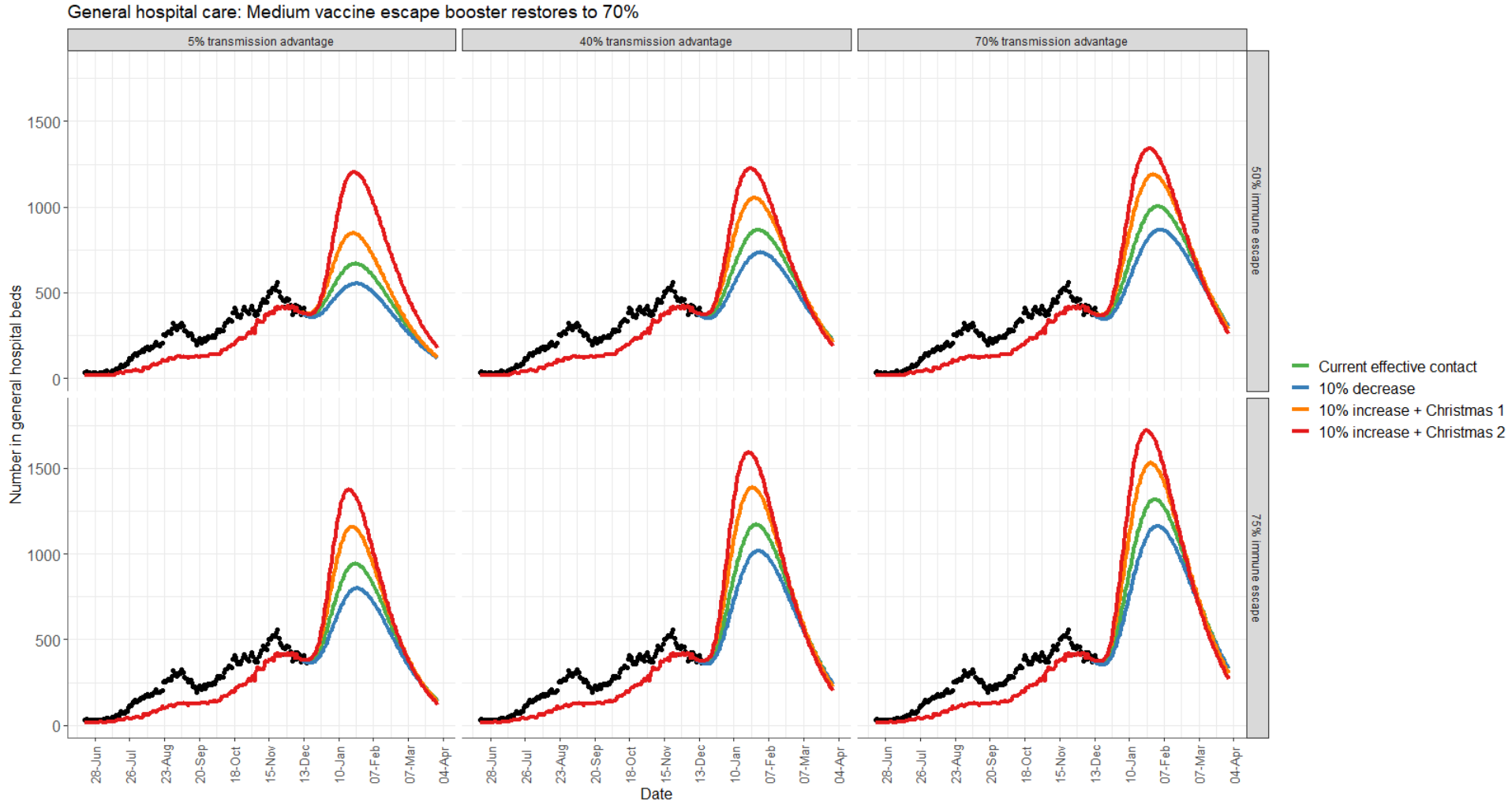
Model scenarios – general hospital care

A central scenario based on current UK HSA estimates of vaccine escape.

Coronavirus
COVID-19
Public Health
Advice



ESRI CHUP model demand for general hospital care based on case numbers from the age-cohorted SEIR model. It is assumed that the primary course of an adenoviral vector vaccine has zero effectiveness against infection with omicron, the effectiveness of a primary course of mRNA vaccines is reduced 35%, and booster mRNA vaccine restores effectiveness to 70%.

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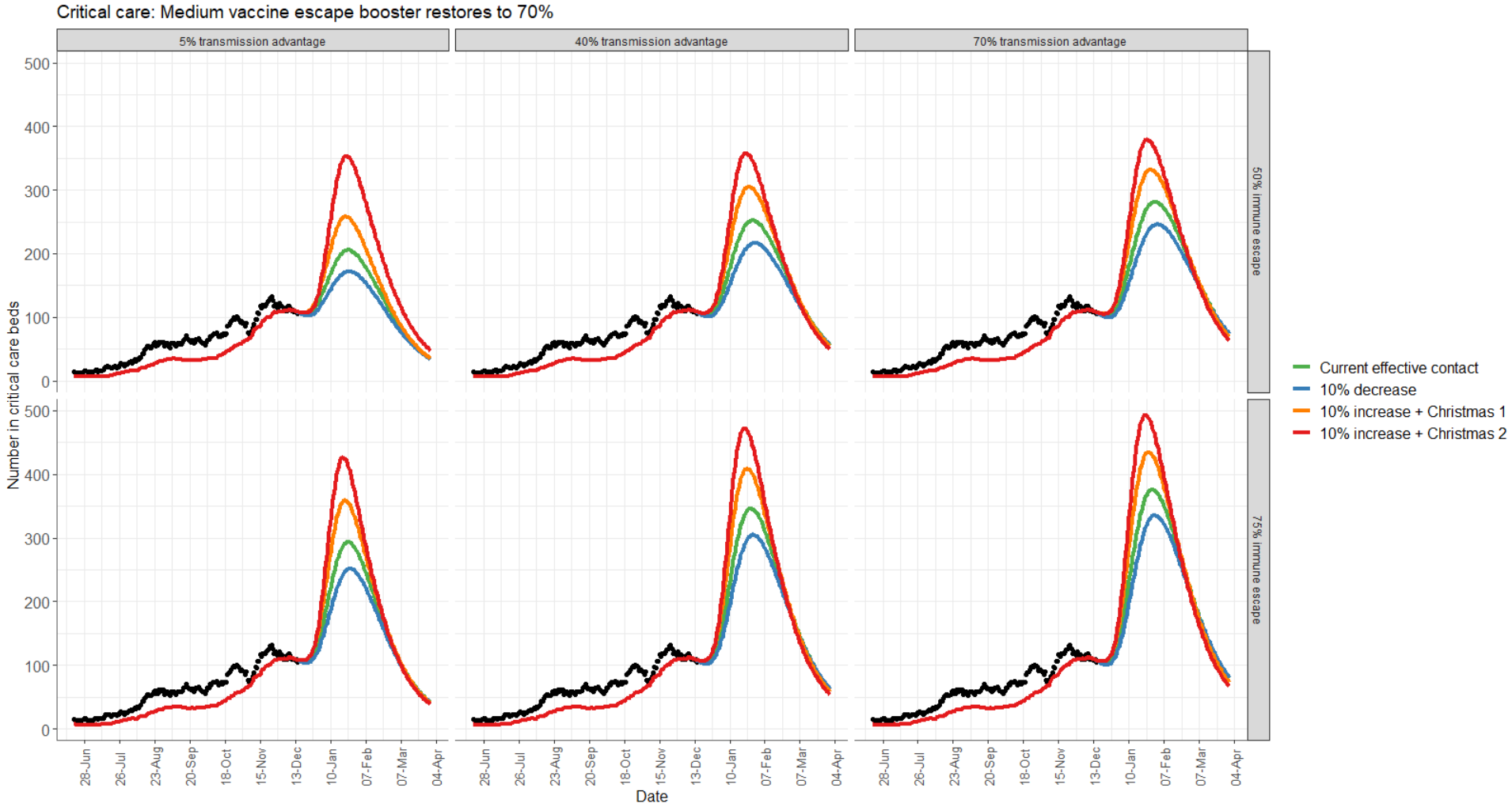
Model scenarios – critical care

A central scenario based on current UK HSA estimates of vaccine escape.

Coronavirus
COVID-19
Public Health
Advice



ESRI CHUP model demand for critical care based on case numbers from the age-cohorted SEIR model. It is assumed that the primary course of an adenoviral vector vaccine has zero effectiveness against infection with omicron, the effectiveness of a primary course of mRNA vaccines is reduced 35%, and booster mRNA vaccine restores effectiveness to 70%.

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Government of Ireland

Situation analysis 15 December 2021

Coronavirus
COVID-19
Public Health
Advice

- Very high risk of large surge of infection and healthcare demand
  - everything has to go in our favour for a moderate surge
- Amplified by increased social contact over Christmas
- Disproportionate impact on critical care
- Booster vaccination likely associated with significant reduction in risk of infection and severe outcomes

Recommendations

Reiteration of Existing Guidance:

- Basic public health protective measures for individuals
- Sectoral Protective measures

New Advice:

- **Restaurants and bars** should close at 5pm.
- **No indoor events** after 5pm. Earlier in the day - attendance should be limited to 50% of venue capacity or 1,000 attendees, whichever is the lower.
- Attendance at **outdoor events** should be limited to 50% of venue capacity or 5,000 attendees, whichever is the lower.
- **Weddings -** there should be an appropriate limit on the number of attendees.
- **Workplaces** - employers should accommodate employees to work from home
- Full implementation of all previously advised protective measures across all sectors, including retail, public transport and religious services.
- **Specific public health advices** will be provided to support people in **gathering safely over the Christmas/New Year period,** including the use of antigen testing.
- **Restricted movement advice** for all close contacts (regardless of primary vaccination status) should be enhanced as follows:
  - Boosted (1 week after): Restrict movements for 5 days with antigen tests.
  - Not boosted: Restrict movements for 10 days with testing.
- No changes are advised in relation to **school holidays**.

Timing: As soon as possible and remain until 30th January