Isle of Man Government

Reiltys Ellan Vannin



COVID-19 Weekly Surveillance Report

6th January 2022

Public Health Directorate

Introduction

- This report is a summary of indicators which are used to understand the dynamics of the spread of COVID-19 on the Isle of Man.
- This report will be published each Thursday for data up to and including the previous Sunday e.g. 12th August is for data up to 8th August.
- Time periods, unless otherwise specified, will start from the 28th June which is taken to be the beginning of this current wave.
- The COVID-19 results are a combination of positive PCR and LFT tests.
- The report has been compiled by the Public Health Intelligence Team using data from Manx Care, the Civil Registry and the Lateral Flow Test (LFT) system.

Wave Surveillance

- As expected, we have moved into a fourth wave of COVID infection, driven by the omicron variant which is now the dominant strain, accounting for the majority of our cases.
- Cases have increased significantly over past weeks. The main driver is likely to be the increased transmissibility of omicron and its ability to evade protection from vaccination and/or previous infection. To date, most of the growth in cases has been in adults aged 20 to 60. School reopening may see an increase in cases in children and young people and we may also expect to see spread into older age groups if our transmission patterns follow those currently being seen in the UK.

Wave Surveillance

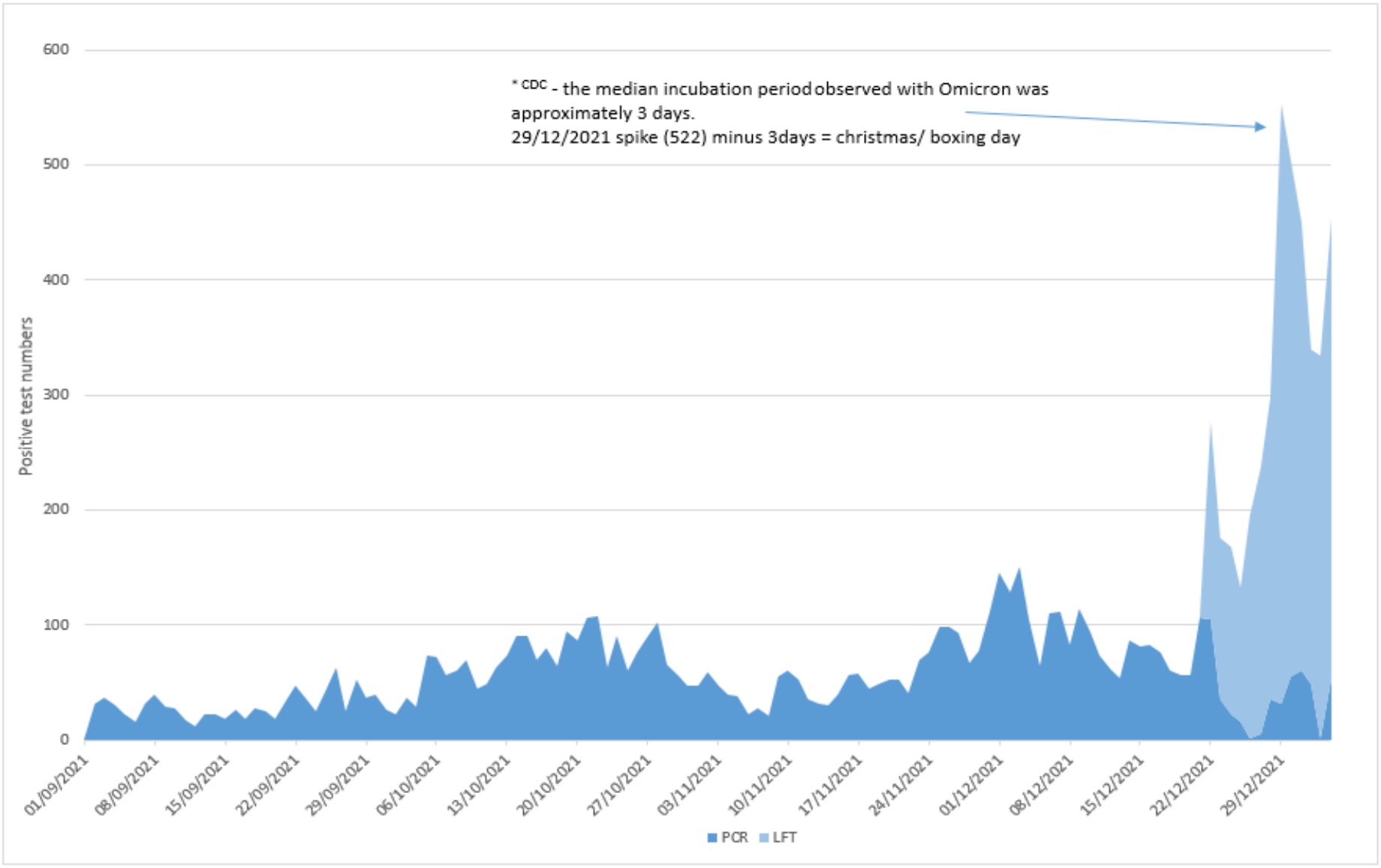
In response to concerns regarding the omicron variant, from 30th November, arrivals testing requirements have changed as follows:

- Manx residents and non-resident fully vaccinated travellers who have been in the Common Travel Area (and no history of travel outside the CTA in preceding 10 days) are now required to undertake a LFD test within twelve hours of arrival and report the result on the government website.
- Travellers who have been outside the CTA in the preceding 10 days are required to undertake a PCR test.

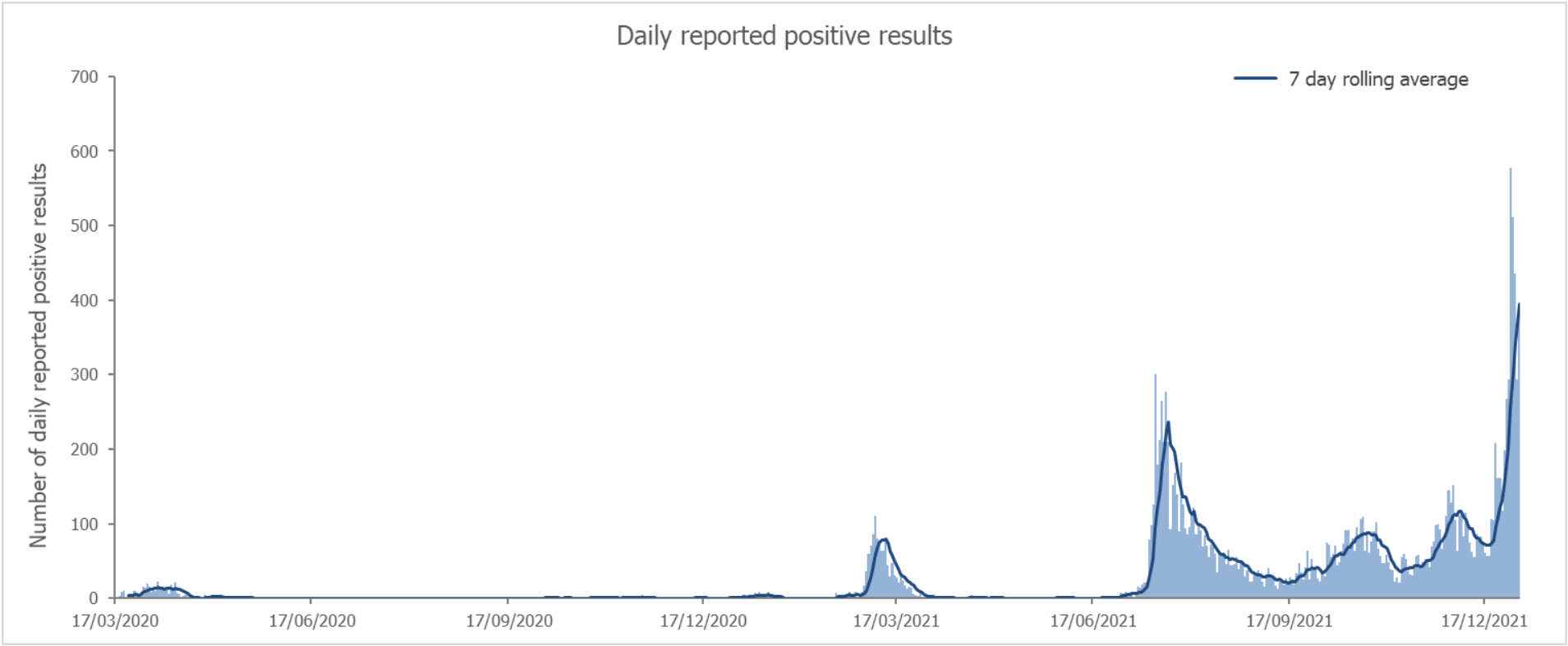
Key Points

- The current 7-day average for reported positive results is around 395.
- The current overall trend of reported positive results is increasing.
- The effective reproduction number (R_t) was 3.66 this week.
- The snapshot census of the Hospital shows 7 patients currently admitted with a COVID positive status.
- Daily and Weekly deaths continue to show a level trend overall.

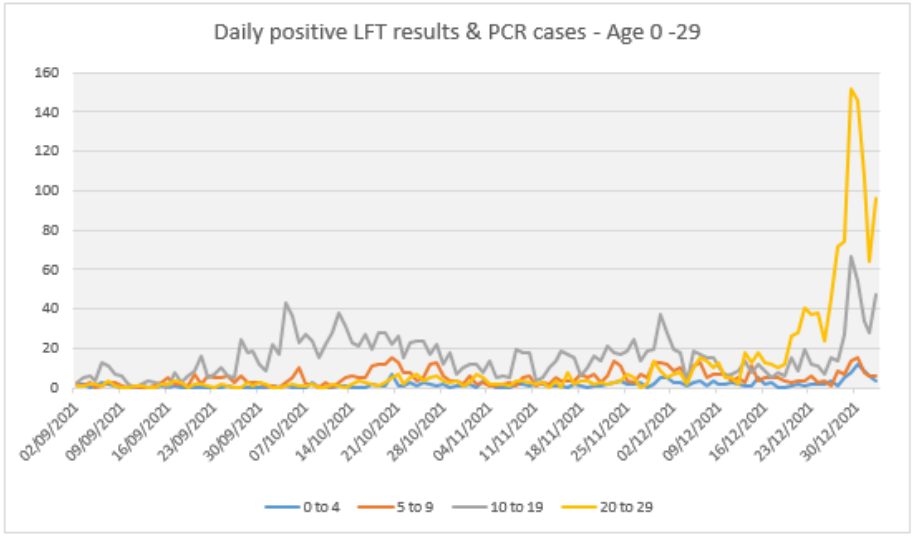
Positive COVID-19 Tests

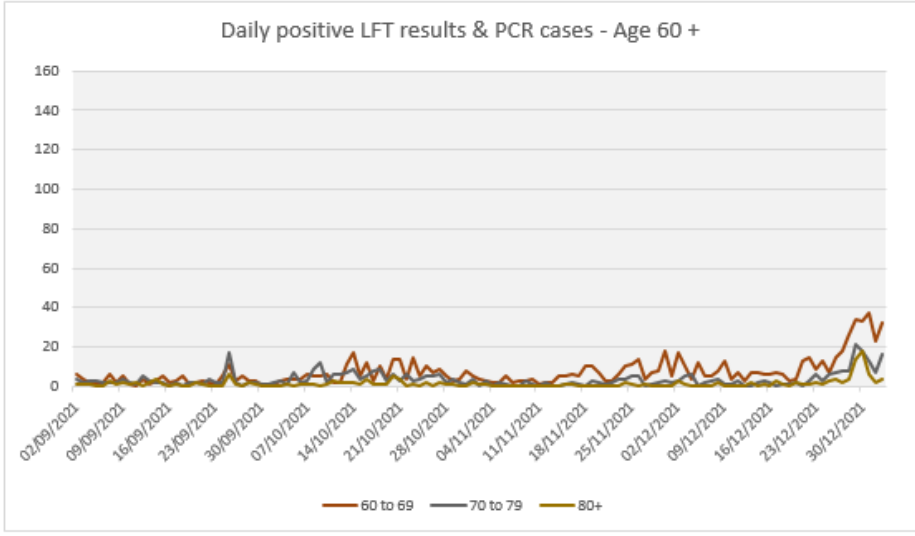


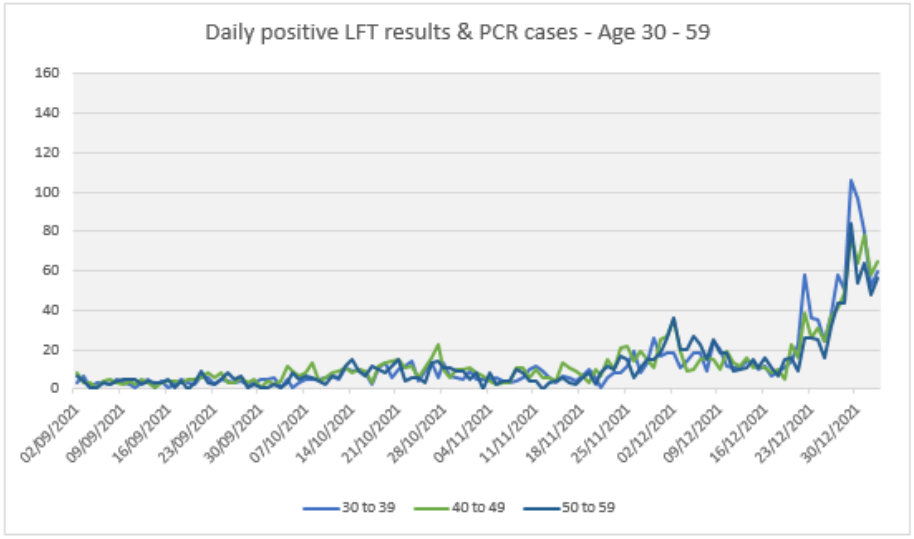
Daily Positive Cases Update – Whole Pandemic

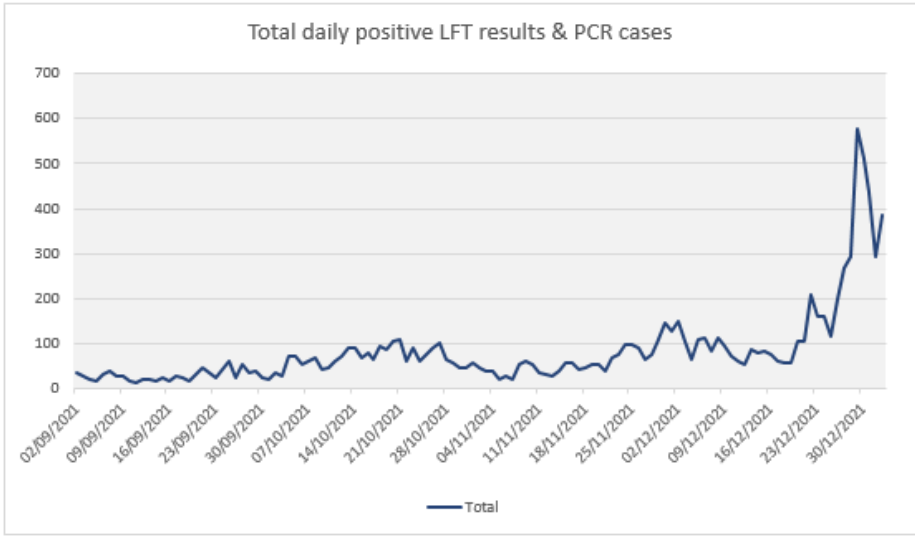


Age Group Analysis

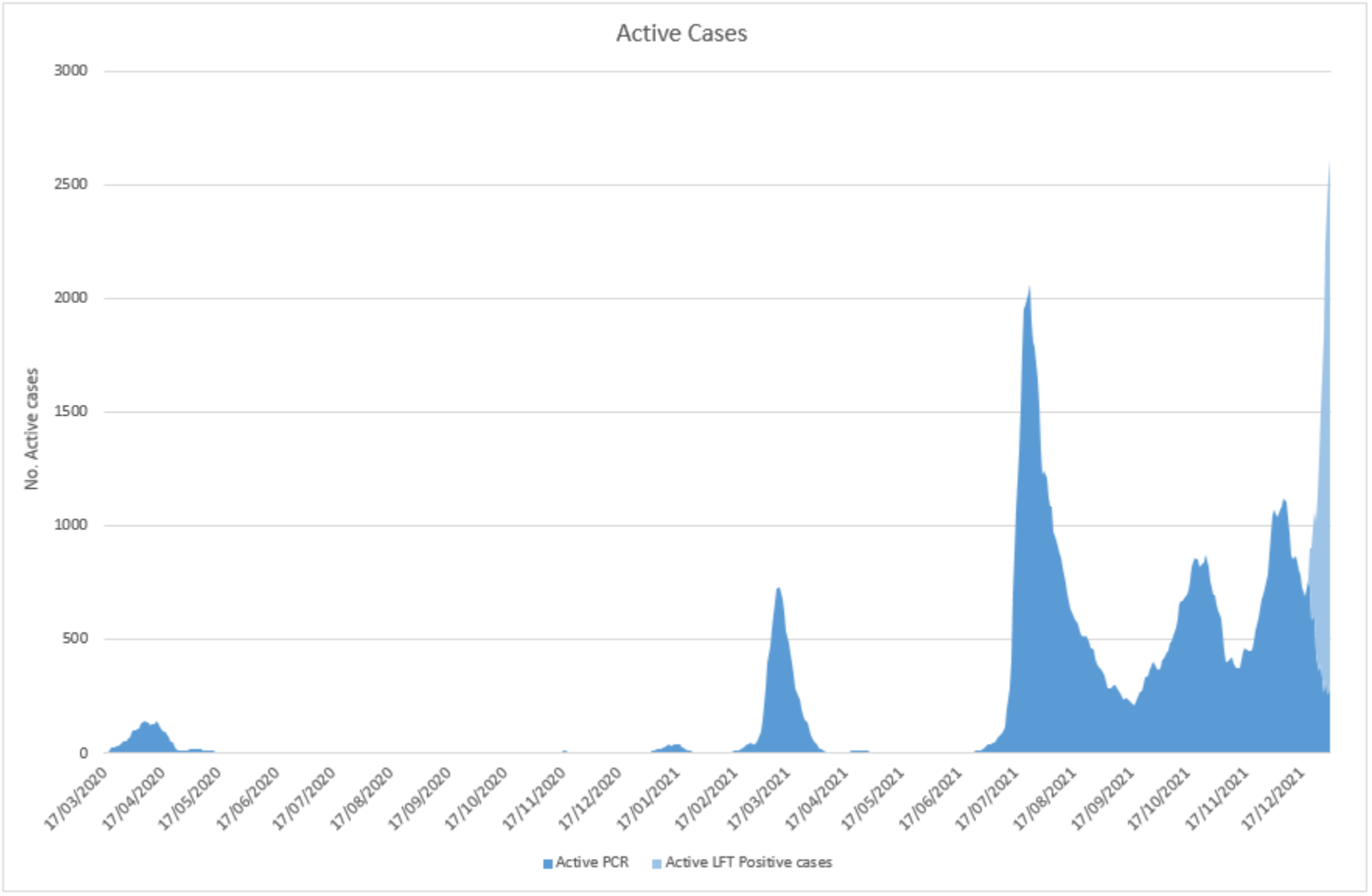




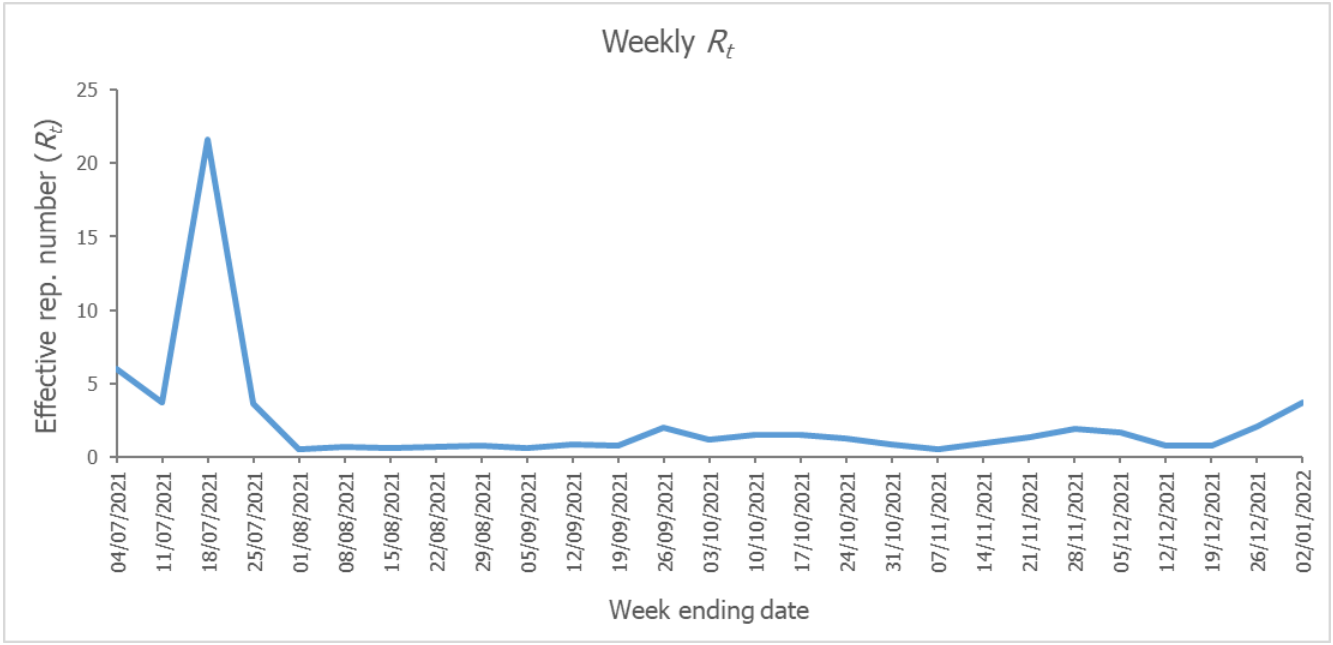




Active PCR & LFT Cases



Effective Reproduction Number (R_t)



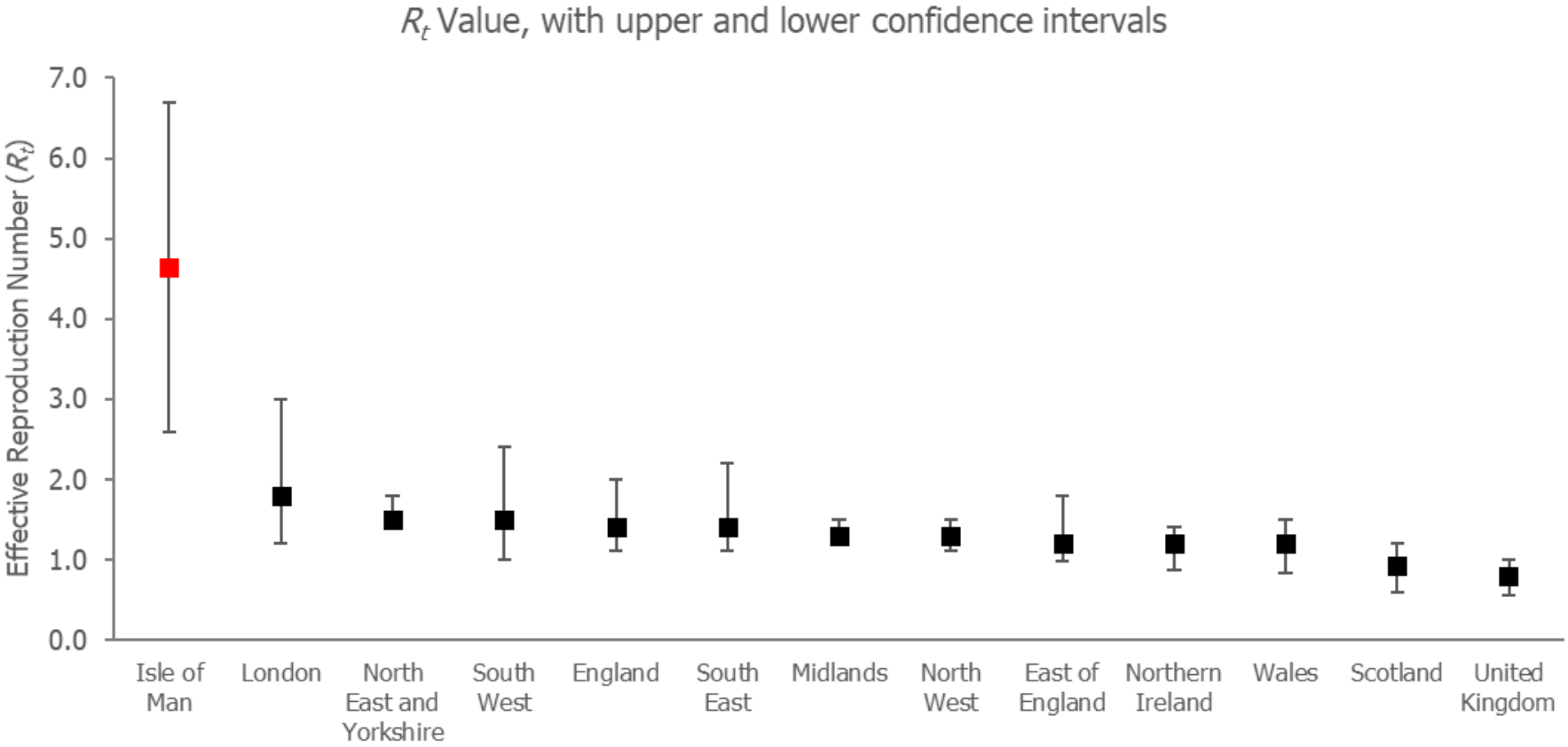
Latest 7 day
R_t = 3.66

- The Effective Reproduction Number (R_t) represents the number of secondary infections generated by each case over time 't' (over a week as presented here) and can be dramatically modified by applying effective interventions.
- When $R_t > 1$ there are more new infections than recoveries, thus the number of infected individuals in the population is increasing, while for $R_t < 1$ the number of infected individuals must be decreasing for the opposite reason.
- The calculation of R_t is as follows[1]:

$$R_t\,(t_i) = \frac{\text{New Infections}}{\text{New Recoveries} + \text{New Deaths}}$$

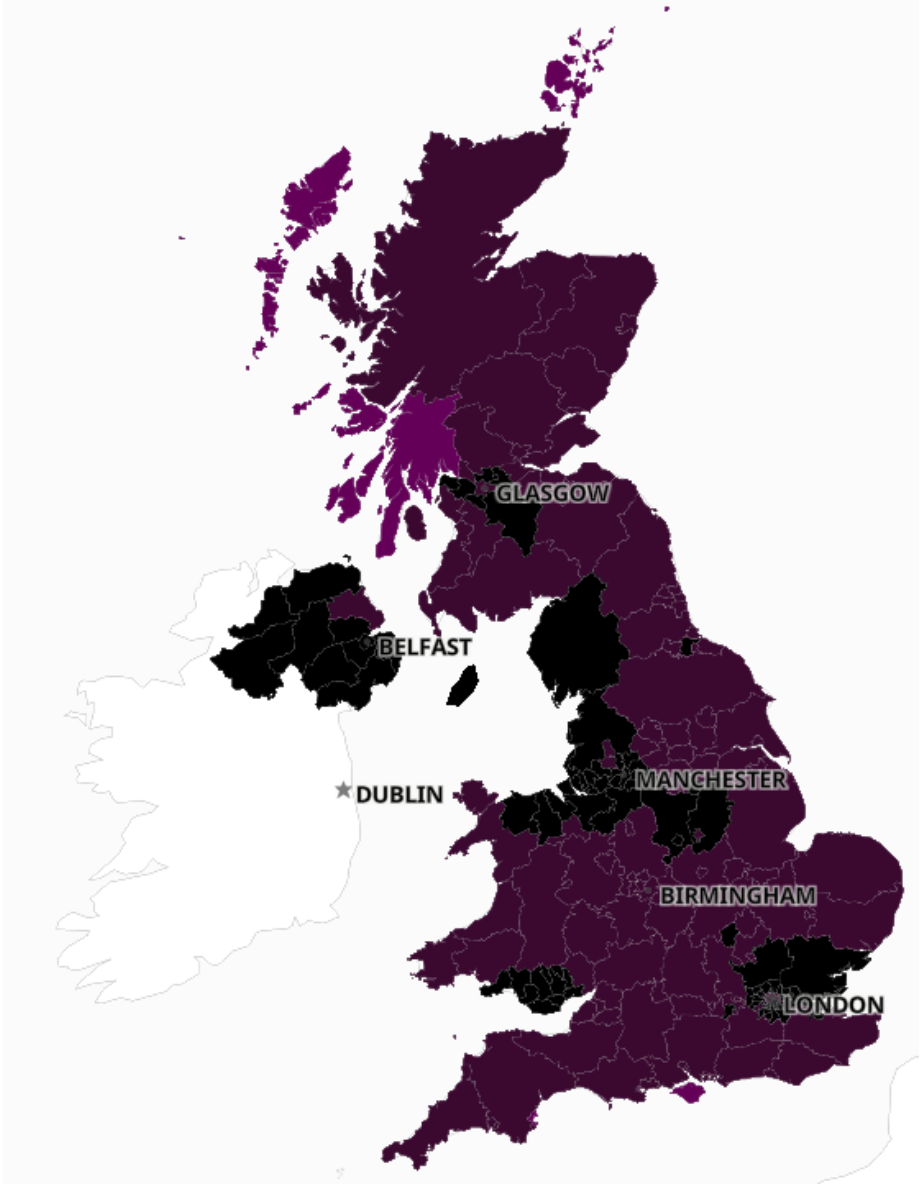
- The UK uses a more complex method of estimating R_t which we are not able to replicate here. The use of this simplified methodology limits the robustness of comparing our R_t value with UK estimates, however it provides a useful comparison between different time periods on Island. New Recoveries is calculated using the presumed 10 day recovery period from positive PCR test result.
- A full table of daily R_t values for the current wave is available in Appendix 1.

R_t Area Comparison

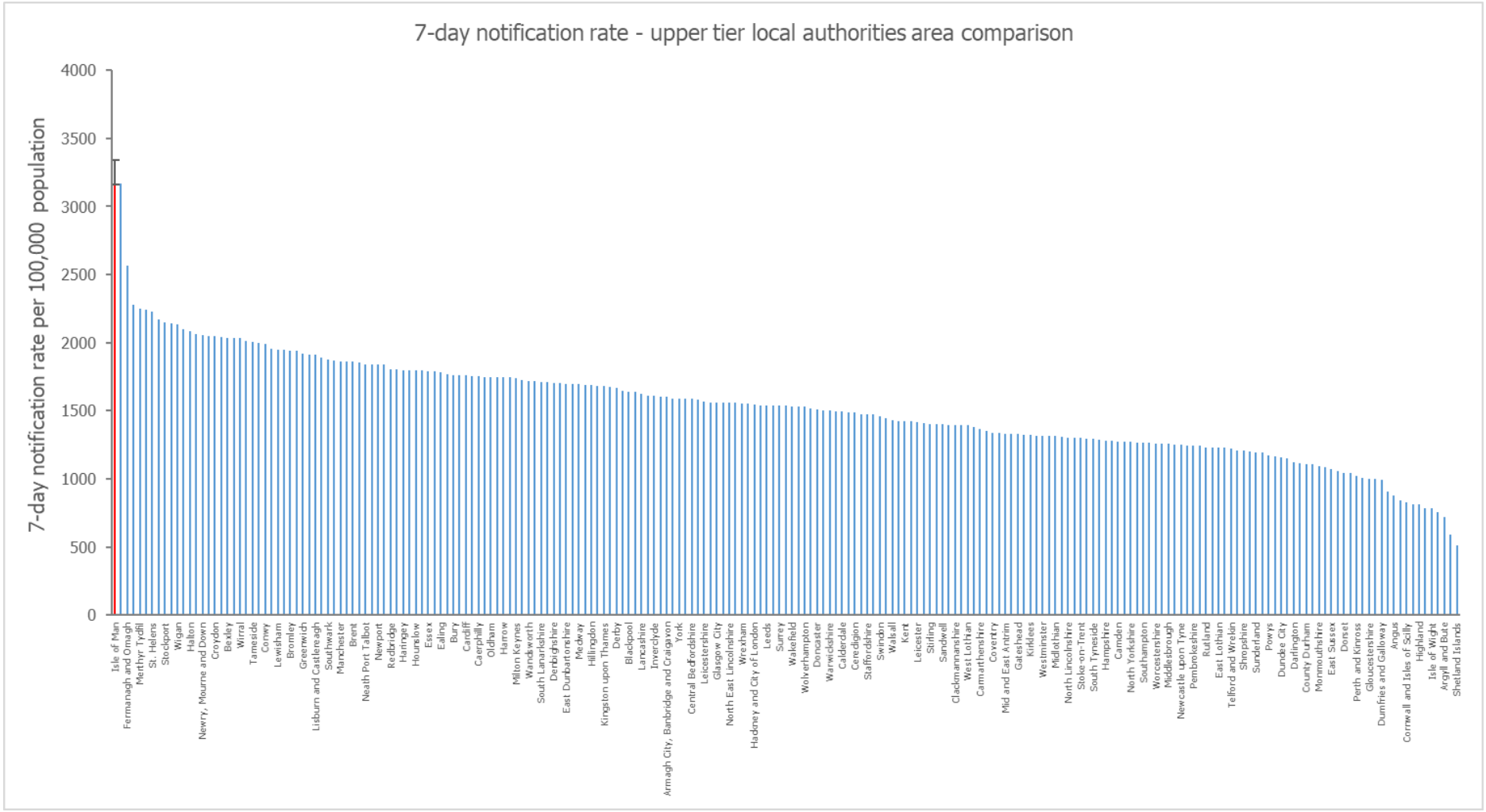


- R_t value shown for Isle of Man is R_t for 02/01/2022
- R_t values shown for United Kingdom areas are 7 day R_t values for 30/12/2021 (latest figures)

7-day Notification Rate Area Comparison

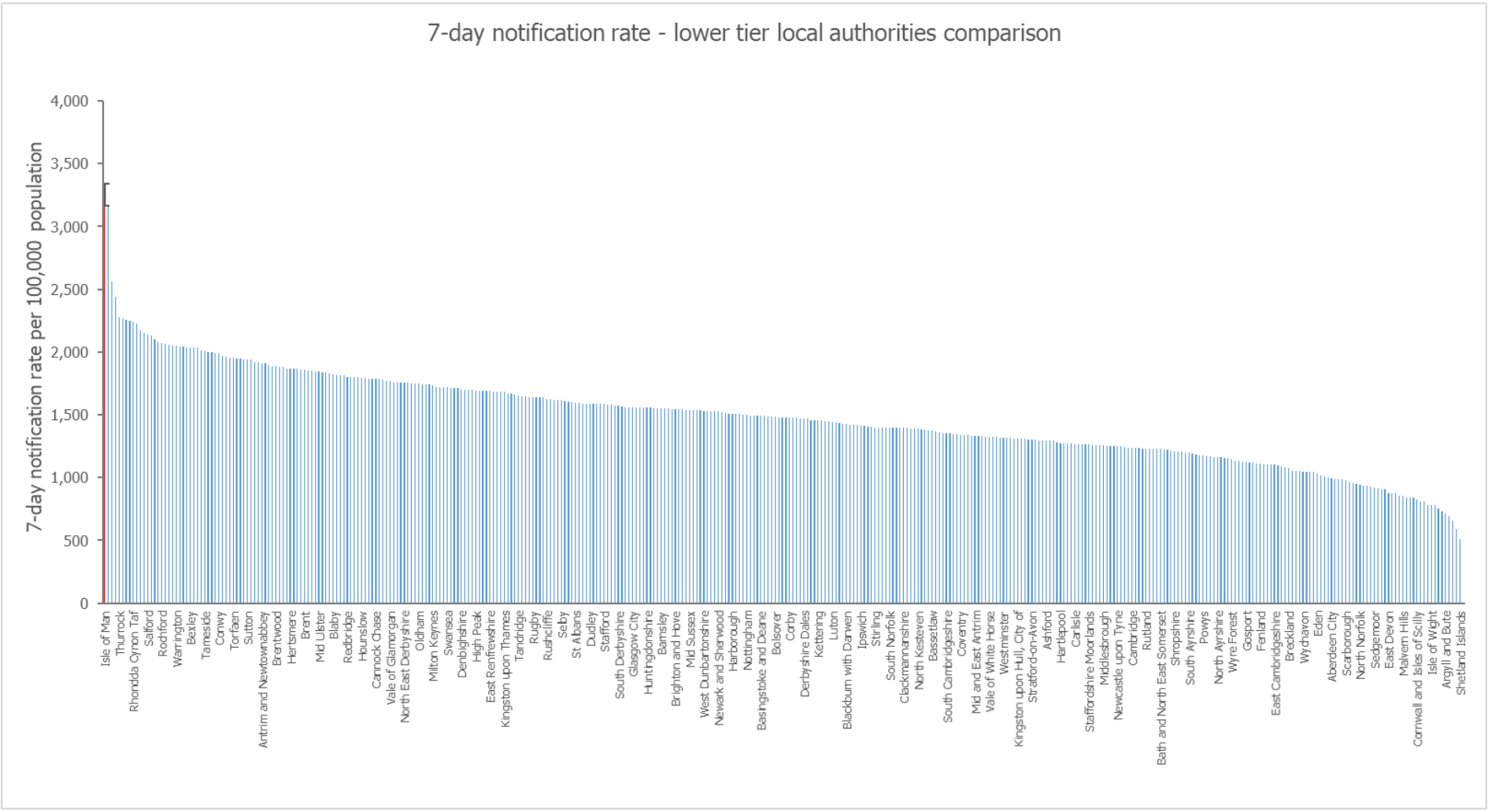


7-day Notification Rate – Upper Tier LA Comparison



The Isle of Man (shown in red), has the highest 7-day notification rate per 100,000 population when included in the upper tier local authorities of the UK.

7-day Notification Rate – Lower Tier LA Comparison



The Isle of Man (shown in red), has the highest 7-day notification rate per 100,000 population when included in the lower tier local authorities of the UK.

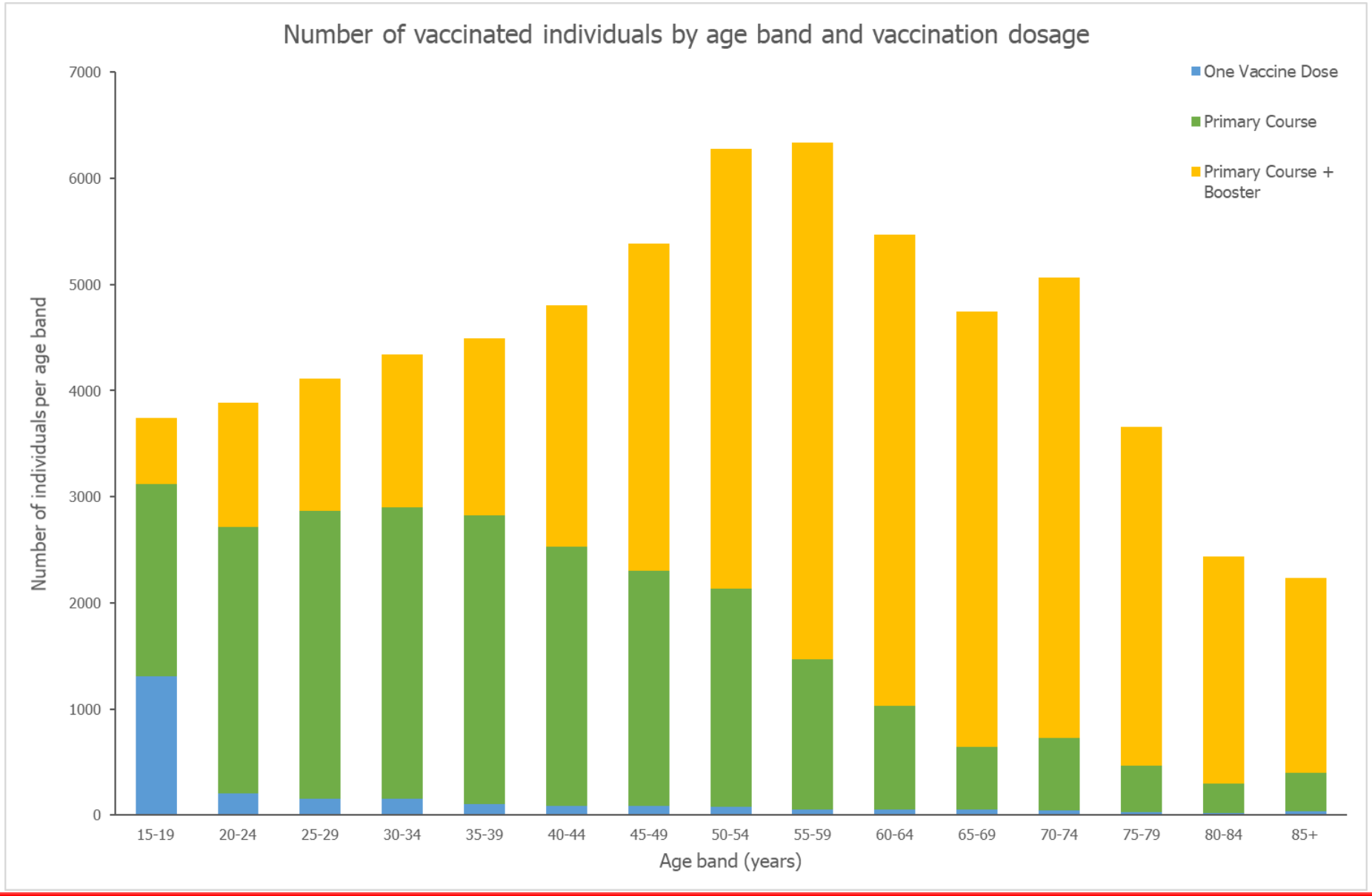
14-day Notification Rate Comparison

	Isle of Man			United Kingdom
Week number	14 day rate	Lower CI	Upper CI	14 day rate
36	617.41	612.23	622.60	727.08
37	565.67	561.04	570.30	663.56
38	660.93	654.07	667.78	643.48
39	766.77	760.65	772.89	691.94
40	874.96	867.84	882.08	778.05
41	1136.04	1128.80	1143.29	805.89
42	1357.14	1348.52	1365.75	852.05
43	1303.04	1291.68	1314.39	936.14
44	878.49	865.69	891.29	776.13
45	666.81	660.02	673.60	697.62
46	785.59	780.35	790.83	798.68
47	1110.17	1099.81	1120.53	860.74
48	1660.55	1645.83	1675.27	909.34
49	1680.54	1664.71	1696.38	988.25
50	1299.51	1289.26	1309.77	1317.95
51	1834.60	1807.69	1861.52	-
52	4497.13	4417.01	4577.25	-

The 14-day rate is calculated by totalling new confirmed cases over the past 14-day period, dividing this number by the total population, and then multiplying by 100,000 to enable area comparisons.

Since the week ending 10/10/21, the Isle of Man has had significantly higher 14 day notification rates than the UK

Vaccine Uptake and Coverage



This data will be expanded in future reports to show % of eligible population vaccinated using the 2021 census data

Hospitalised Patients

This figure is a snapshot census of the cases in Hospital.

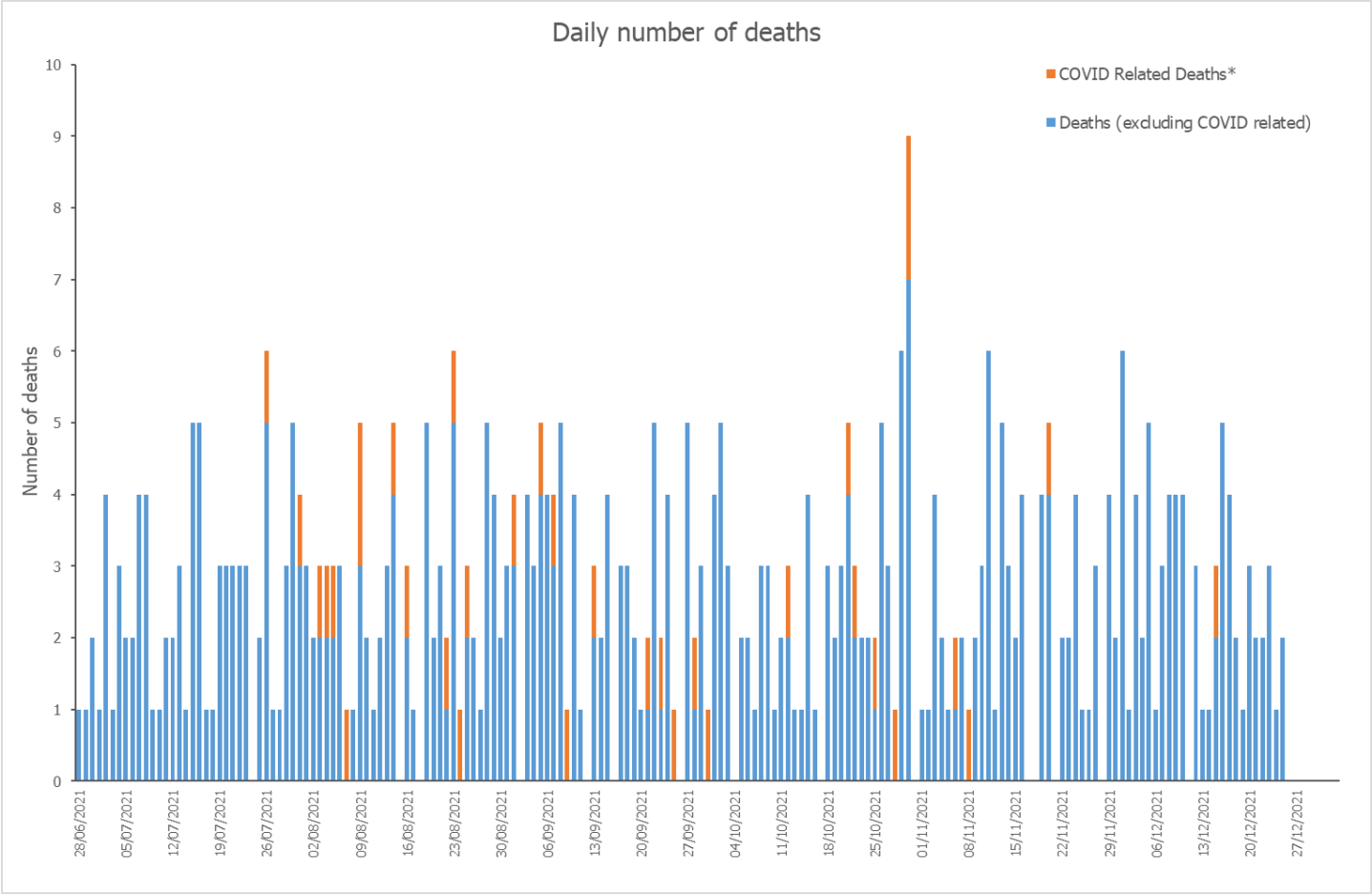
When broken down into vaccination status some of the numbers are 5 or below. Therefore, further sub-analysis of weekly figures cannot be produced due to the caveats and identifiable nature of small numbers.

SUMMARY

Total Patients	**7**
With COVID-19 Symptoms	100.0%
Without COVID-19 Symptoms	

Vaccination Status of Hospital Admissions	
Fully Vaccinated (2+2+ Booster)	
Fully Vaccinated (2+2)	57.1%
Partially Vaccinated	
Unvaccinated	42.9%

Daily Deaths – Current Wave



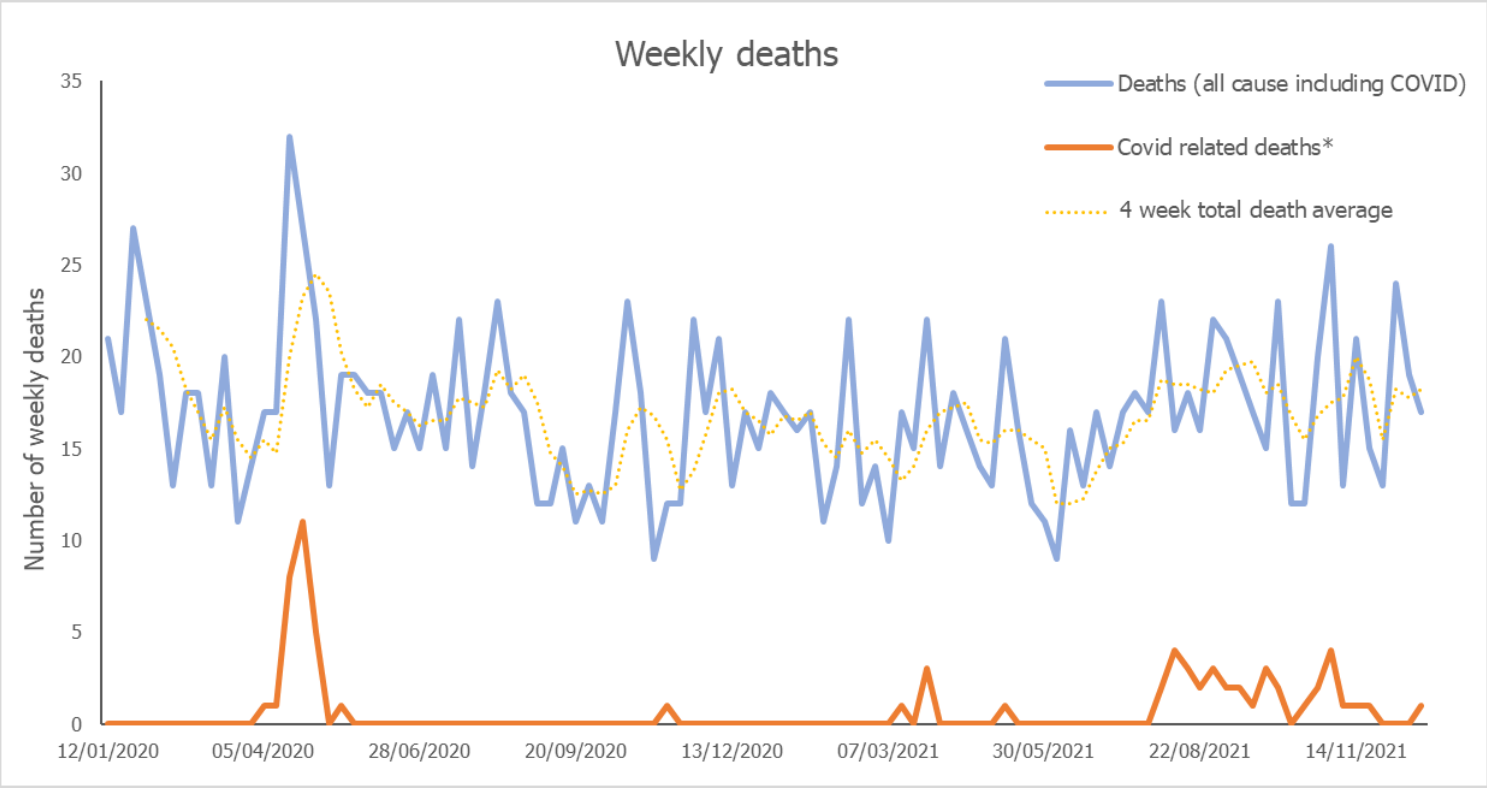
Cumulative COVID Related Deaths = 68

Numbers up to date at time of publication.

Note: Death registrations are often delayed and therefore deaths occurring in a given week may not be input into the week of which death occurred until a later date, meaning figures are likely to change retrospectively as data is updated and the most recent week's numbers will be incomplete.

*COVID deaths are those where COVID-19 is mentioned anywhere within the death certificate

Weekly Deaths – Whole Pandemic

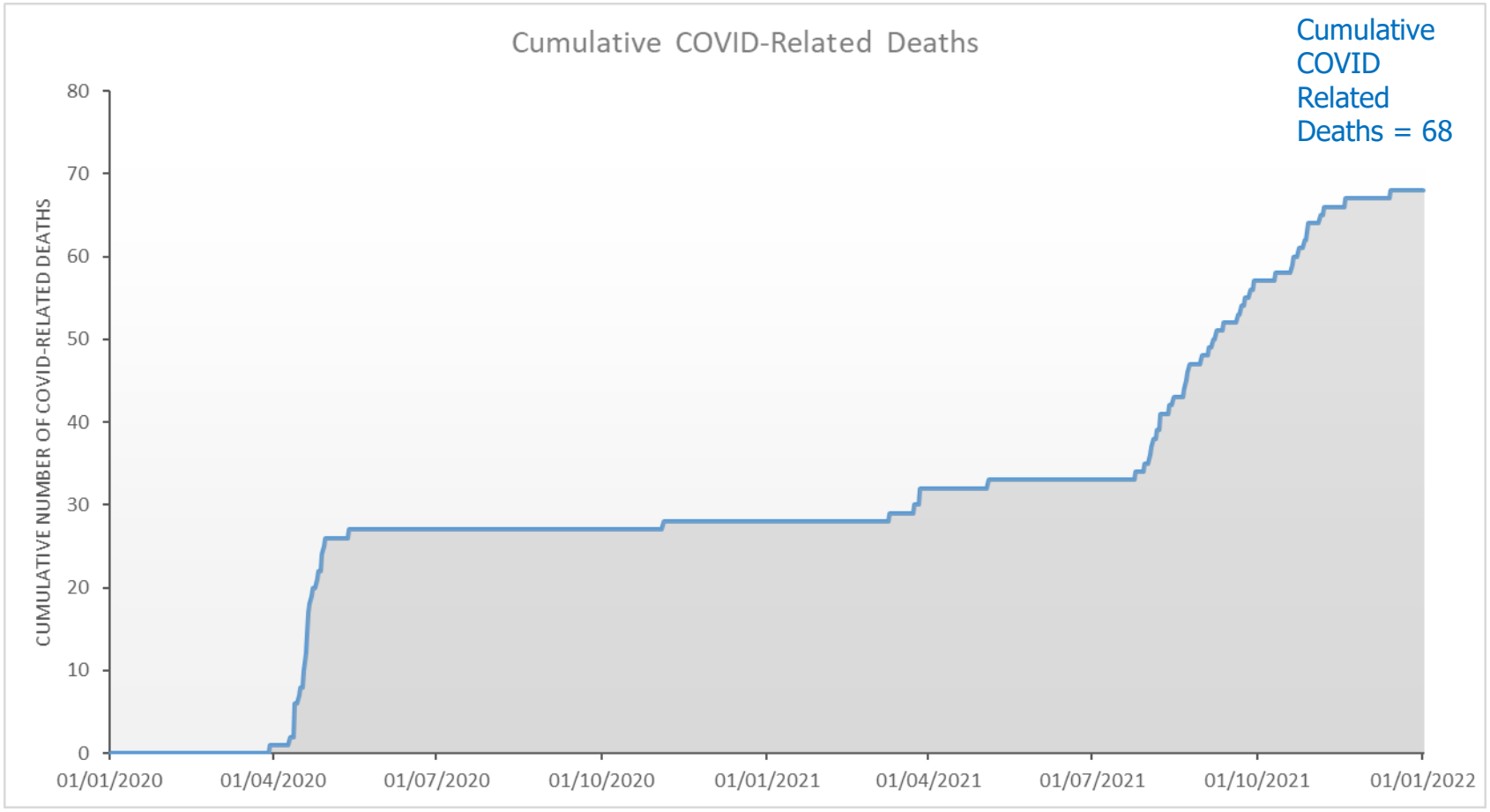


Note: Death registrations are often delayed and therefore deaths occurring in a given week may not be input into the week of which death occurred until a later date, meaning figures are likely to change retrospectively as data is updated and the most recent week's numbers will be incomplete.

Weekly death data is 11 days behind the Weekly Surveillance Report's release date. This is to allow for death registrations to be received with any delays and stop an incorrect perceived 'sudden drop' in weekly deaths that would occur if an appropriate time period was not given to allow for death registrations to be received in due course.

*COVID deaths are those where COVID-19 is mentioned anywhere within the death certificate. This differs from the definition used by Public Health England, who classify a COVID death as "people who had had a positive test result for COVID-19 and dies within 28 days of the first positive test result."

Cumulative COVID-Related Deaths



Definitions

- **Vaccination Status**
  - One dose = those who have received only one dose
  - Primary Course = those who have received a full course (two or three dose). Third dose, those with immunosuppression only.
  - Primary Course + Booster = a full course plus a booster

Appendix 1

Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t	Date	Daily R_t
01-Jul	6.00	20-Jul	11.67	08-Aug	0.67	27-Aug	0.54	15-Sep	1.63	04-Oct	1.76	23-Oct	0.99	11-Nov	0.61	30-Nov	2.74	19-Dec	0.60
02-Jul	2.67	21-Jul	13.14	09-Aug	0.73	28-Aug	0.79	16-Sep	0.59	05-Oct	1.14	24-Oct	0.67	12-Nov	0.67	01-Dec	3.12	20-Dec	1.43
03-Jul	6.00	22-Jul	9.55	10-Aug	0.64	29-Aug	0.34	17-Sep	0.70	06-Oct	2.24	25-Oct	1.09	13-Nov	0.77	02-Dec	2.19	21-Dec	1.69
04-Jul	5.00	23-Jul	1.13	11-Aug	0.76	30-Aug	0.51	18-Sep	0.86	07-Oct	1.13	26-Oct	1.13	14-Nov	1.05	03-Dec	1.38	22-Dec	3.85
05-Jul	7.00	24-Jul	1.56	12-Aug	0.63	31-Aug	0.78	19-Sep	0.64	08-Oct	1.89	27-Oct	1.59	15-Nov	2.59	04-Dec	0.65	23-Dec	1.88
06-Jul	0.67	25-Jul	1.35	13-Aug	0.48	01-Sep	0.68	20-Sep	2.00	09-Oct	1.15	28-Oct	0.71	16-Nov	2.15	05-Dec	1.11	24-Dec	2.00
07-Jul	7.00	26-Jul	0.47	14-Aug	0.40	02-Sep	0.66	21-Sep	3.62	10-Oct	1.85	29-Oct	0.66	17-Nov	2.10	06-Dec	1.20	25-Dec	1.43
08-Jul	6.00	27-Jul	0.52	15-Aug	0.65	03-Sep	0.77	22-Sep	1.52	11-Oct	2.74	30-Oct	0.44	18-Nov	0.87	07-Dec	1.24	26-Dec	2.62
09-Jul	7.00	28-Jul	0.86	16-Aug	0.63	04-Sep	0.44	23-Sep	1.09	12-Oct	1.97	31-Oct	0.43	19-Nov	0.88	08-Dec	1.48	27-Dec	4.38
10-Jul	2.57	29-Jul	0.48	17-Aug	0.81	05-Sep	0.33	24-Sep	2.33	13-Oct	3.03	01-Nov	0.94	20-Nov	1.00	09-Dec	0.86	28-Dec	5.16
11-Jul	3.50	30-Jul	0.45	18-Aug	0.56	06-Sep	1.07	25-Sep	2.33	14-Oct	1.23	02-Nov	0.53	21-Nov	1.14	10-Dec	0.51	29-Dec	10.12
12-Jul	2.75	31-Jul	0.31	19-Aug	0.92	07-Sep	1.05	26-Sep	1.32	15-Oct	0.96	03-Nov	0.64	22-Nov	2.16	11-Dec	0.48	30-Dec	4.82
13-Jul	13.33	01-Aug	0.45	20-Aug	0.80	08-Sep	1.32	27-Sep	1.89	16-Oct	1.43	04-Nov	0.50	23-Nov	2.53	12-Dec	0.36	31-Dec	4.15
14-Jul	19.60	02-Aug	1.22	21-Aug	0.64	09-Sep	1.17	28-Sep	1.42	17-Oct	1.07	05-Nov	0.24	24-Nov	2.45	13-Dec	0.82	01-Jan	1.41
15-Jul	17.86	03-Aug	0.80	22-Aug	0.66	10-Sep	0.47	29-Sep	2.17	18-Oct	1.36	06-Nov	0.26	25-Nov	1.74	14-Dec	1.27	02-Jan	2.38
16-Jul	150.50	04-Aug	0.51	23-Aug	0.93	11-Sep	0.38	30-Sep	0.74	19-Oct	1.91	07-Nov	0.31	26-Nov	1.60	15-Dec	0.74		
17-Jul	25.57	05-Aug	0.68	24-Aug	1.08	12-Sep	0.62	01-Oct	0.49	20-Oct	2.21	08-Nov	0.95	27-Nov	1.52	16-Dec	0.68		
18-Jul	17.67	06-Aug	0.99	25-Aug	0.78	13-Sep	0.71	02-Oct	1.06	21-Oct	1.73	09-Nov	1.28	28-Nov	1.60	17-Dec	0.73		
19-Jul	18.57	07-Aug	0.38	26-Aug	0.80	14-Sep	0.82	03-Oct	1.20	22-Oct	0.86	10-Nov	1.13	29-Nov	2.09	18-Dec	0.50		

References

[1] Contreras, S., Villavicencio, H. A., Medina-Ortiz, D., Saavedra, C. P., & Olivera-Nappa, Á. (2020). Real-Time Estimation of R_t for Supporting Public-Health Policies Against COVID-19. *Frontiers in public health*, *8*, 556689. https://doi.org/10.3389/fpubh.2020.556689

[2] Jansen, L., Tegomoh, B., Lange, K., Showalter, K., Figliomeni, J., Abdalhamid, B., Iwen, C., Fauver,J. Buss, B., & Donahue, M. Investigation of a SARS-CoV-2 B.1.1.529 (Omicron) Variant Cluster — Nebraska, November–December2021. https://www.cdc.gov/mmwr/volumes/70/wr/mm705152e3.htm

Data Disclaimer

- While we have used reasonable efforts to ensure the accuracy of the data used within this report, data may be subject to change and historical amendment as new systems become established.

- The quality of data provided to Public Health by other organisations is the responsibility of the originating organisation.