Isle of Man Government

Reiltys Ellan Vannin



COVID-19 Weekly Surveillance Report

12 August 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.

From Thursday 7 July 2022, the Public Health Weekly Surveillance Report will move to a Friday publication. The last Thursday publication of this report will be Thursday 7 July 2022. The period of data reported within each report will remain the same (i.e. report published 15 July 2022 is for data up to and including 10 July 2022).

The COVID-19 results are a combination of positive PCR and LFD tests.

The report has been compiled by the Public Health Intelligence Team using data from Manx Care, the Civil Registry and the Lateral Flow Device (LFD) test system.

Key Points

- The current 7-day average for reported positive results is 12.
- The trend of case numbers reported from testing shows a slight decrease this week.
- The effective reproduction number (R_t) was 0.8 this week.
- The snapshot of the Hospital is not available in this week's report.

Wave Surveillance

- This week saw a decrease or plateau in case numbers across all age groups. The effective reproduction number (R_t) decreased from 0.9 to 0.8 this week. It is worth noting that R_t values, as seen in the daily R_t table (Appendix 1), are sensitive to large fluctuations when daily case numbers are small. Therefore, consideration should be taken of other epidemiological data to gain a true understanding of patterns of spread.

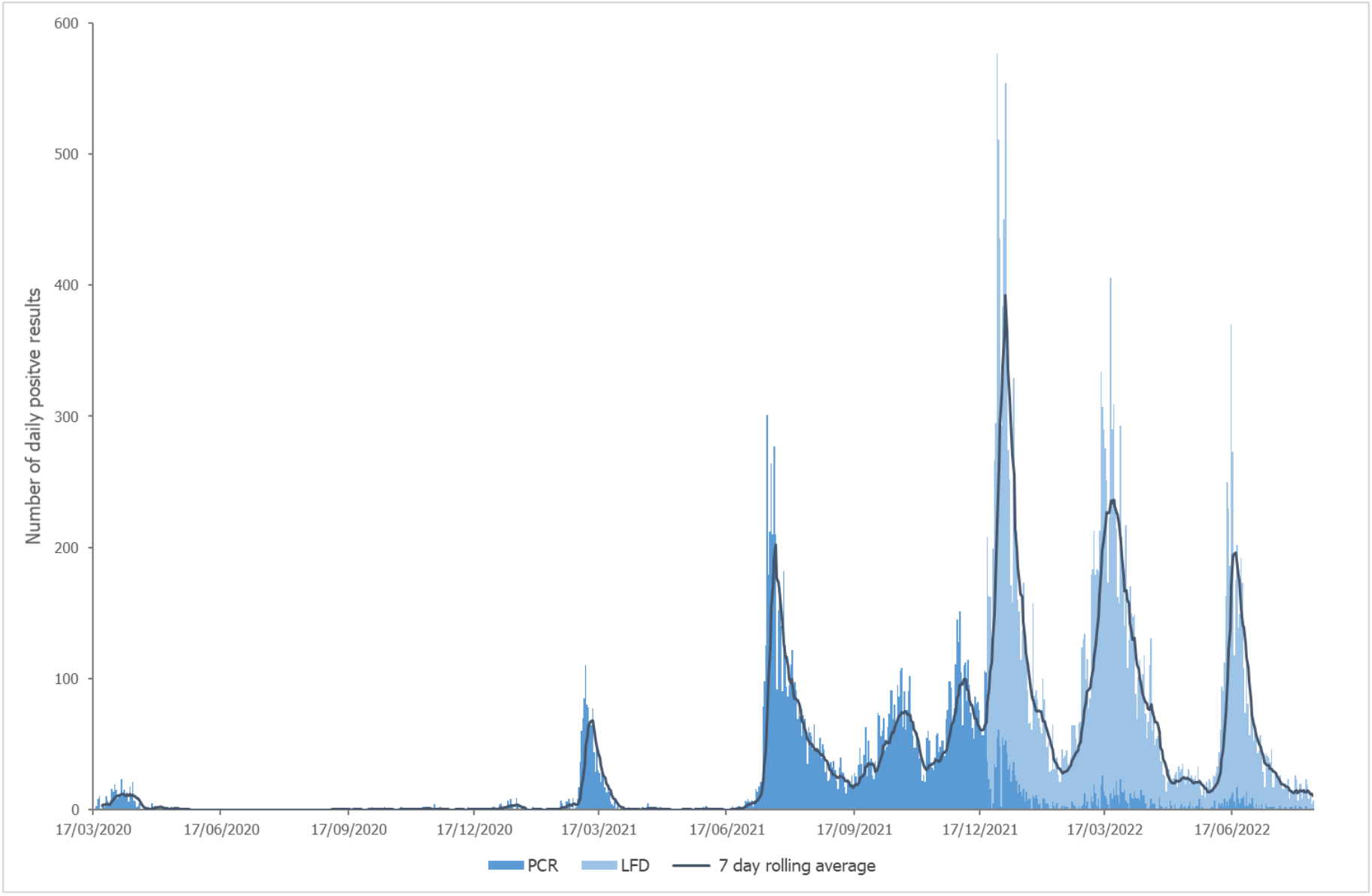
- Case ascertainment and calculation of the reproduction number is, of course, dependent on patterns of testing and reporting so it is likely that there are more cases than are currently notified. This caveat has applied throughout the pandemic when COVID-19 has been transmitting on Island, although the change to LFD self testing and self reporting may have impacted on that to an unknown extent. Further changes to testing guidance published on 1 April 2022 are likely having an additional impact. This week we have seen a slight decrease in seven day average daily reporting from 15 to 12.

- It should be noted that due to the differences in testing strategies on the Isle of Man compared to the UK, comparisons are shown for guidance only.

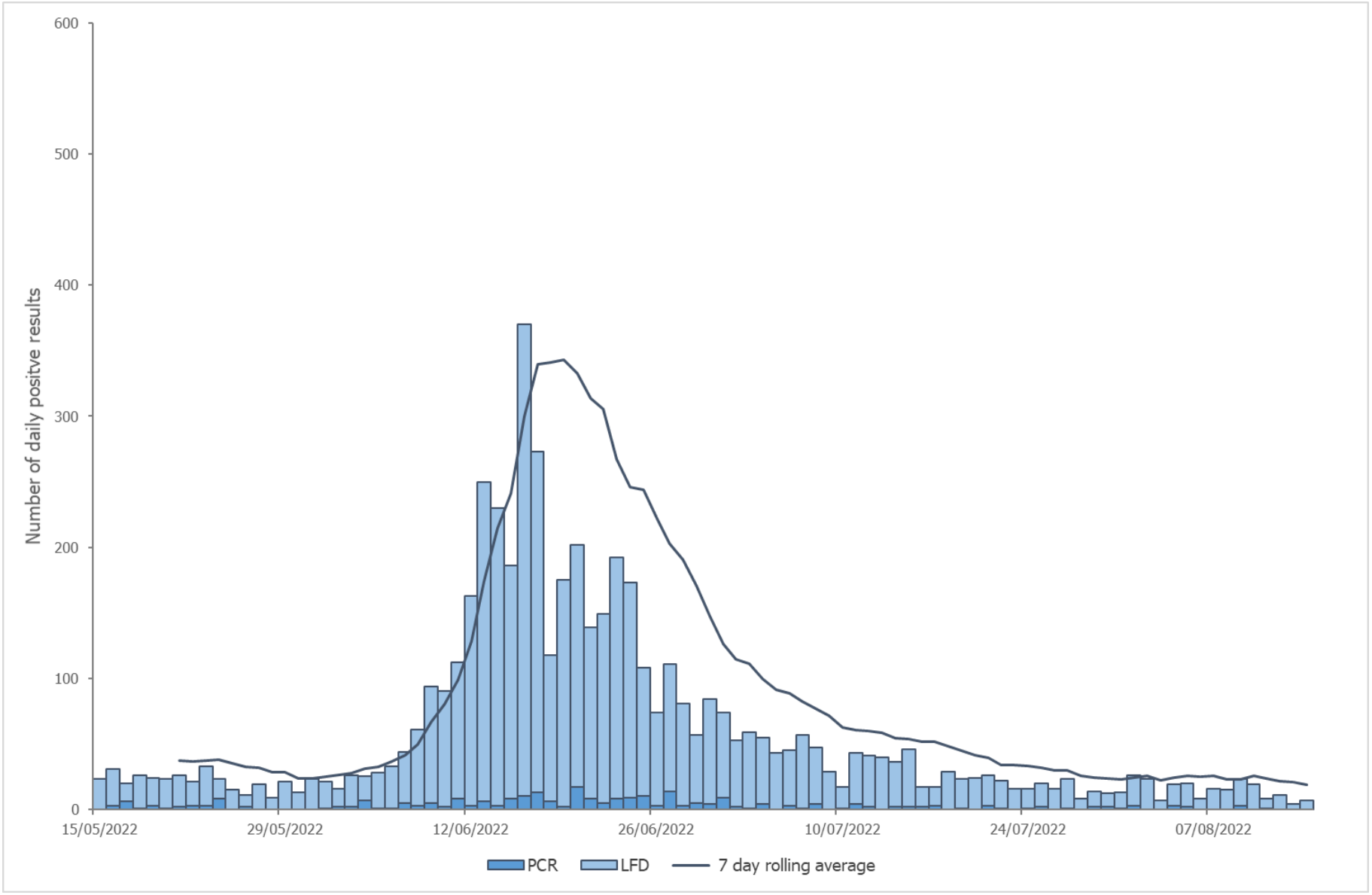
United Kingdom COVID-19 Infection Survey[1]

The ONS Coronavirus (COVID-19) Infection Survey UK is currently undergoing a change in data collection methods. As a result of this change, there was a pause to the publication of the weekly bulletin on Friday 12 August 2022. The next bulletin will be released on Friday 19 August 2022. Full details are available at the reference provided.

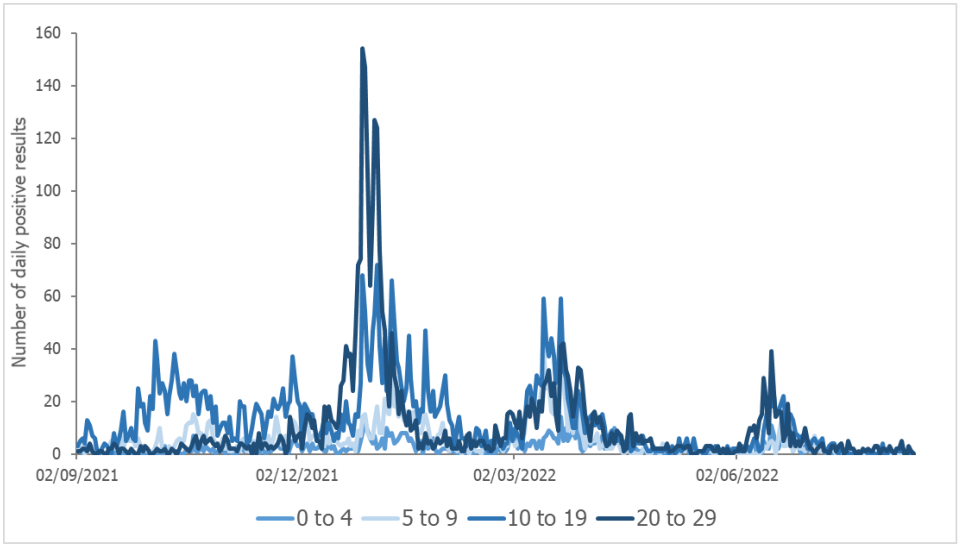
Positive COVID-19 Tests – Whole Pandemic

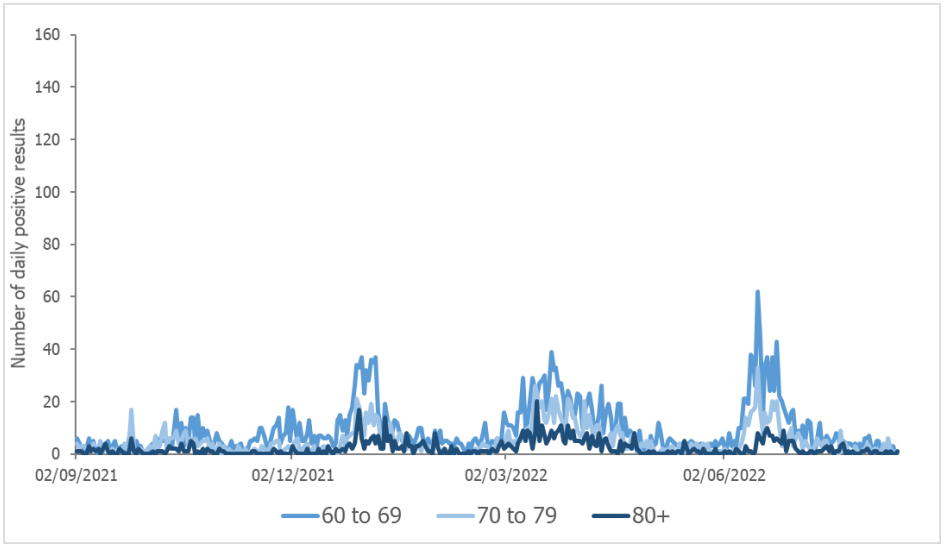


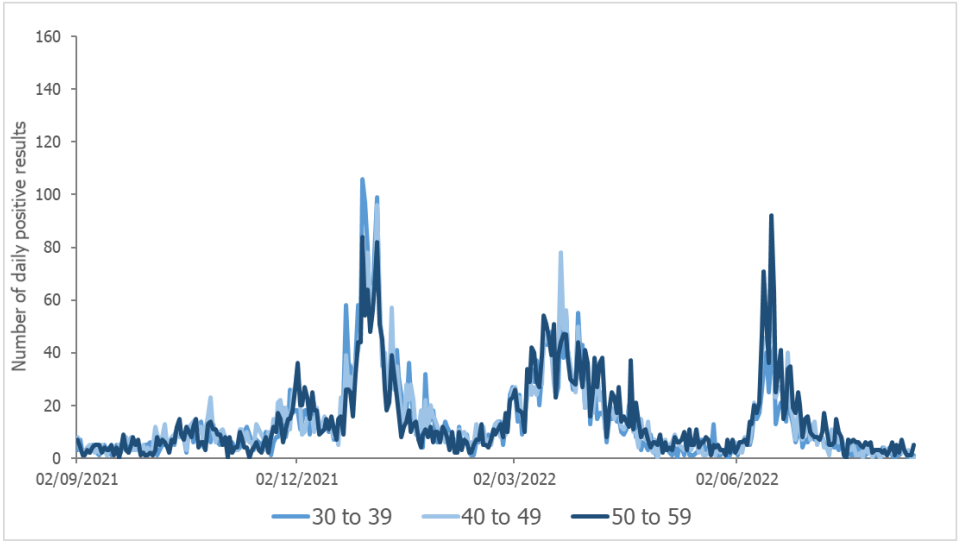
Daily Positive Results – Latest 3-months

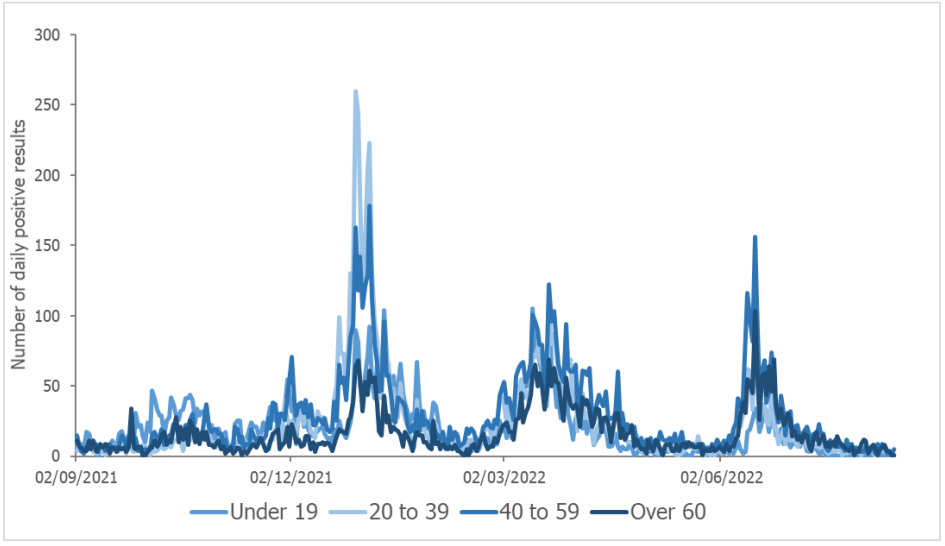


Age Group Analysis

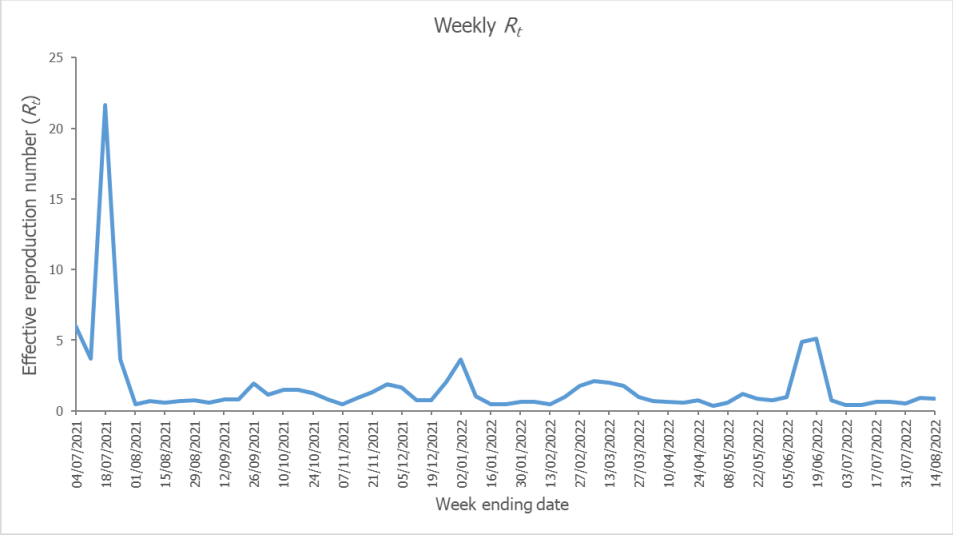








Effective Reproduction Number (R_t)



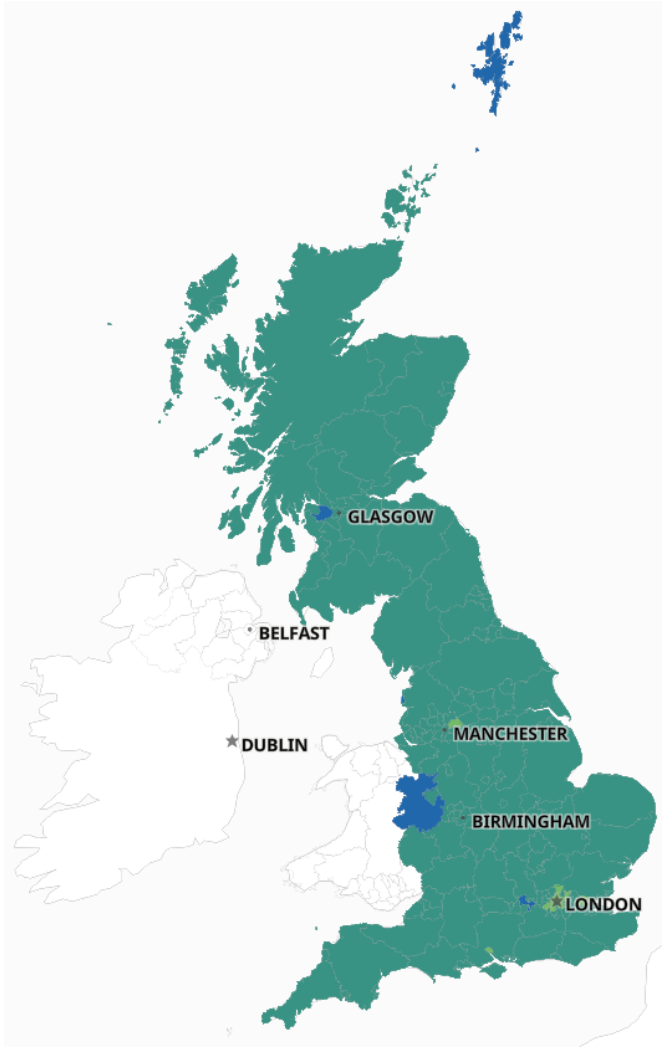
Latest 7 day R_t = 0.8

- 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[2]:

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

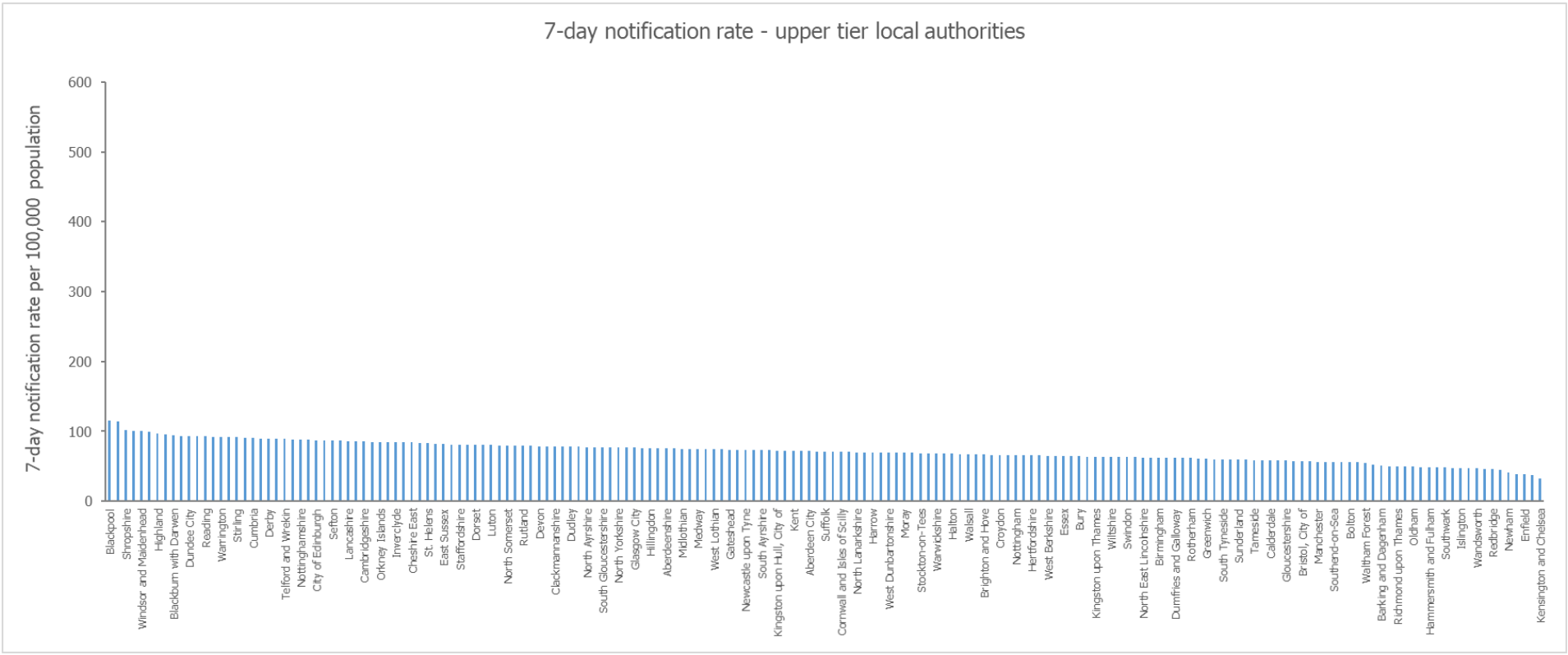
- The UK uses a more complex method of estimating R_t which we are not able to replicate here. The use of this simplified methodology limits the robustness of comparing our R_t value with UK estimates, however it provides a useful comparison between different time periods on Island. New Recoveries is calculated using the presumed 10 day recovery period from positive test result.
- A full table of daily R_t values for the current wave is available in Appendix 1.
- It is worth noting that R_t values, as seen in the daily R_t table (Appendix 1), are sensitive to large fluctuations when daily reported case numbers are small. Therefore, consideration should be taken of other epidemiological data to gain a true understanding of patterns of spread.

7-day Notification Rate Area Comparison



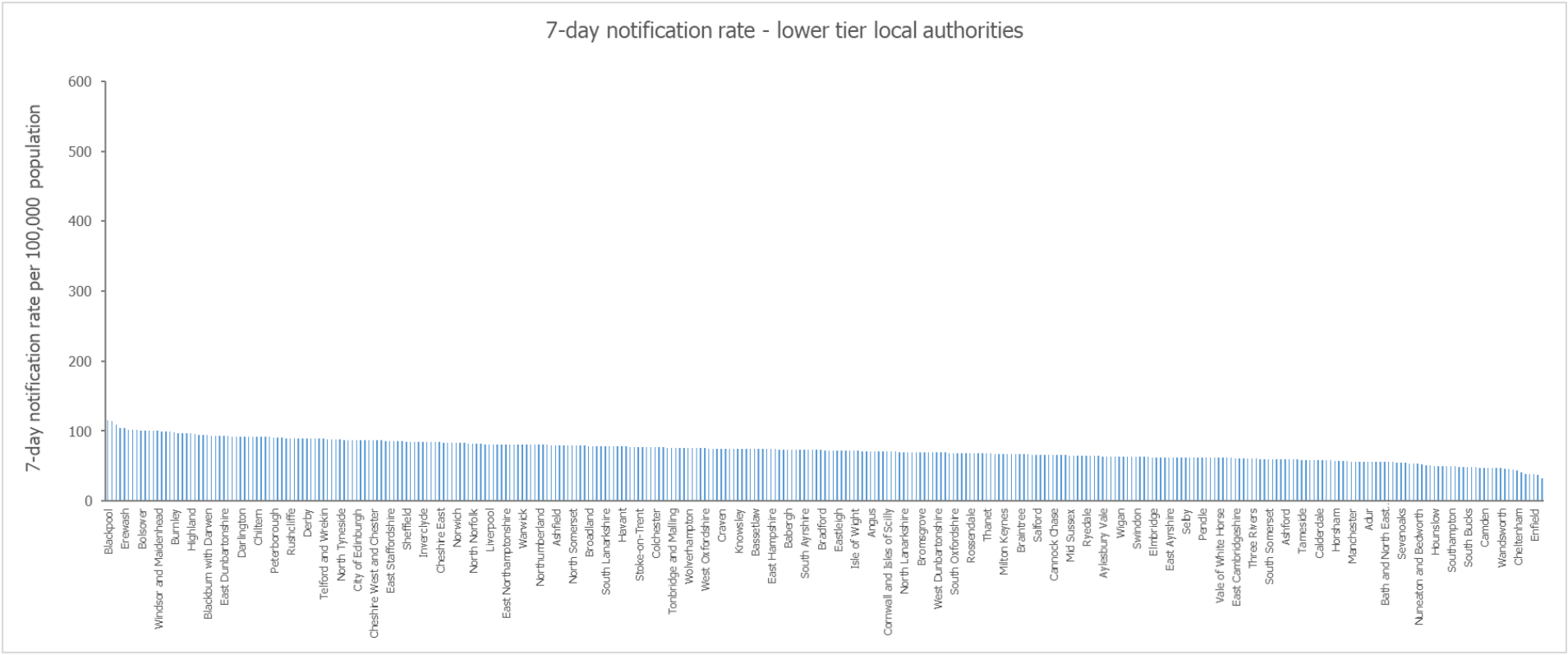
It should be noted that there are two reasons why data may not be shown. Firstly, data is not shown for areas with fewer than 3 cases at middle layer super output area (MSOA) level, to protect individuals' identity. Secondly, data may not be shown if the data is delayed or unavailable. It should also be noted that Isle of Man data is not shown here due to the lack of comparability of data resulting from the differences in testing availability and strategy on the Isle of Man compared to the UK.

7-day Notification Rate – UK Upper Tier Local Authorities



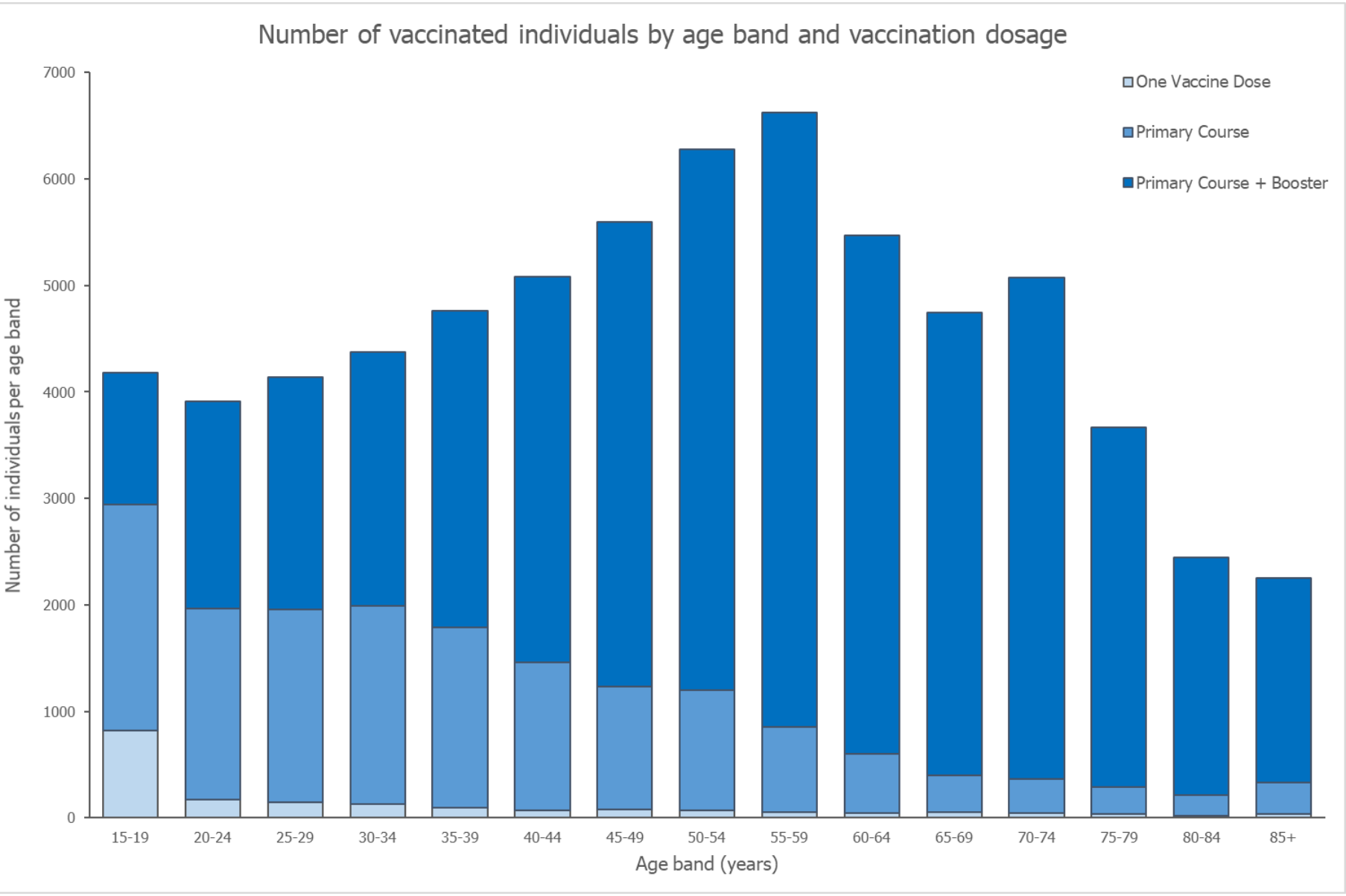
The data shown here is 7-day notification rate per 100,000 population for Upper Tier Local Authorities in the United Kingdom. It should be noted that Isle of Man data is not shown here due to the lack of comparability of data resulting from the differences in testing availability and strategy on the Isle of Man compared to the UK.

7-day Notification Rate – UK Lower Tier Local Authorities

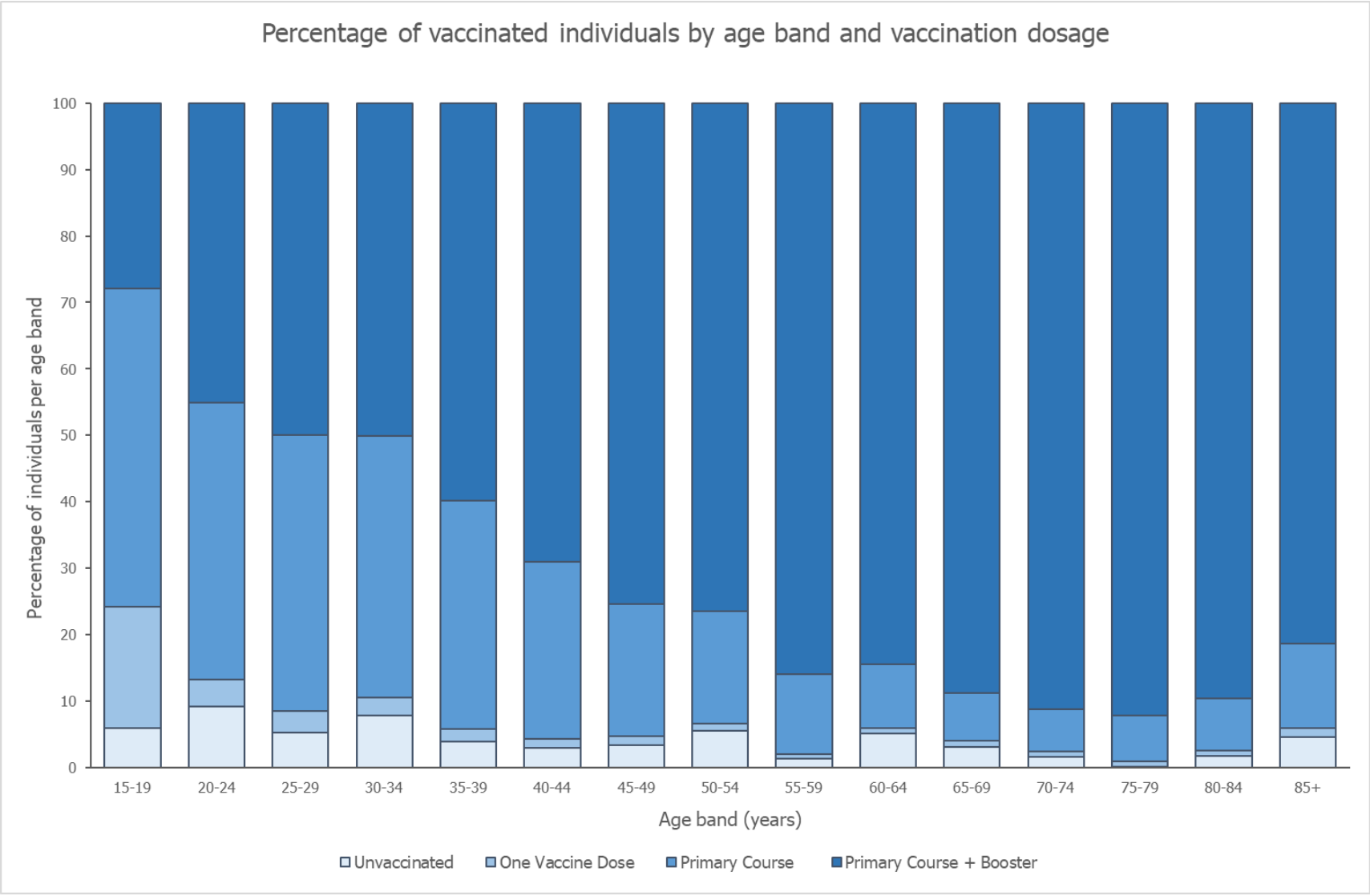


The data shown here is 7-day notification rate per 100,000 population for Lower Tier Local Authorities in the United Kingdom. It should be noted that Isle of Man data is not shown here due to the lack of comparability of data resulting from the differences in testing availability and strategy on the Isle of Man compared to the UK.

Vaccine Uptake and Coverage



Vaccine Uptake and Coverage



This data uses the 2021 Census populations as reference for eligible population[3].

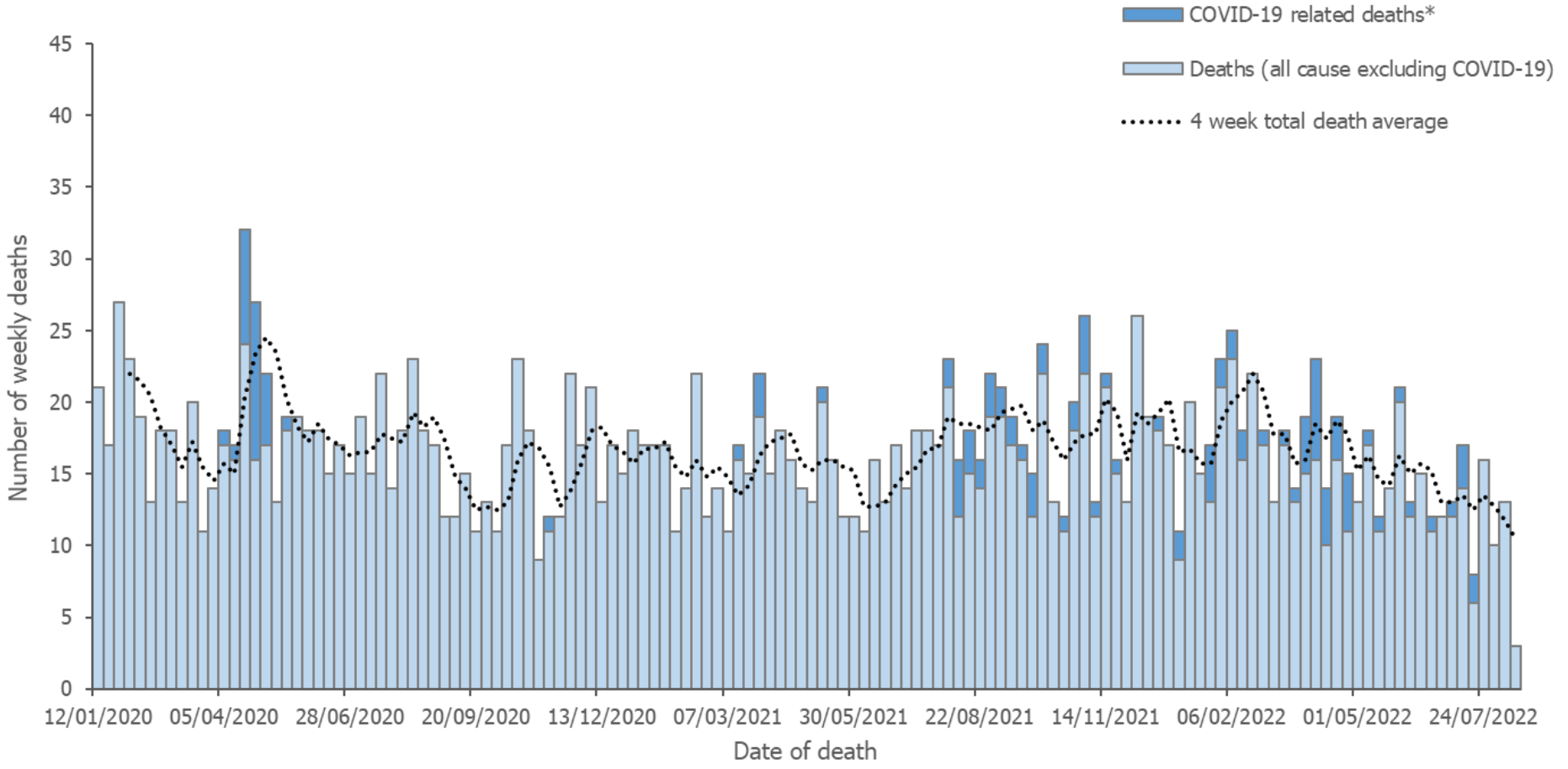
Hospitalised Patients

Due to small numbers, and the associated caveats and identifiability, the Hospital snapshot is not available in this week's report.

Hospitalised Patients

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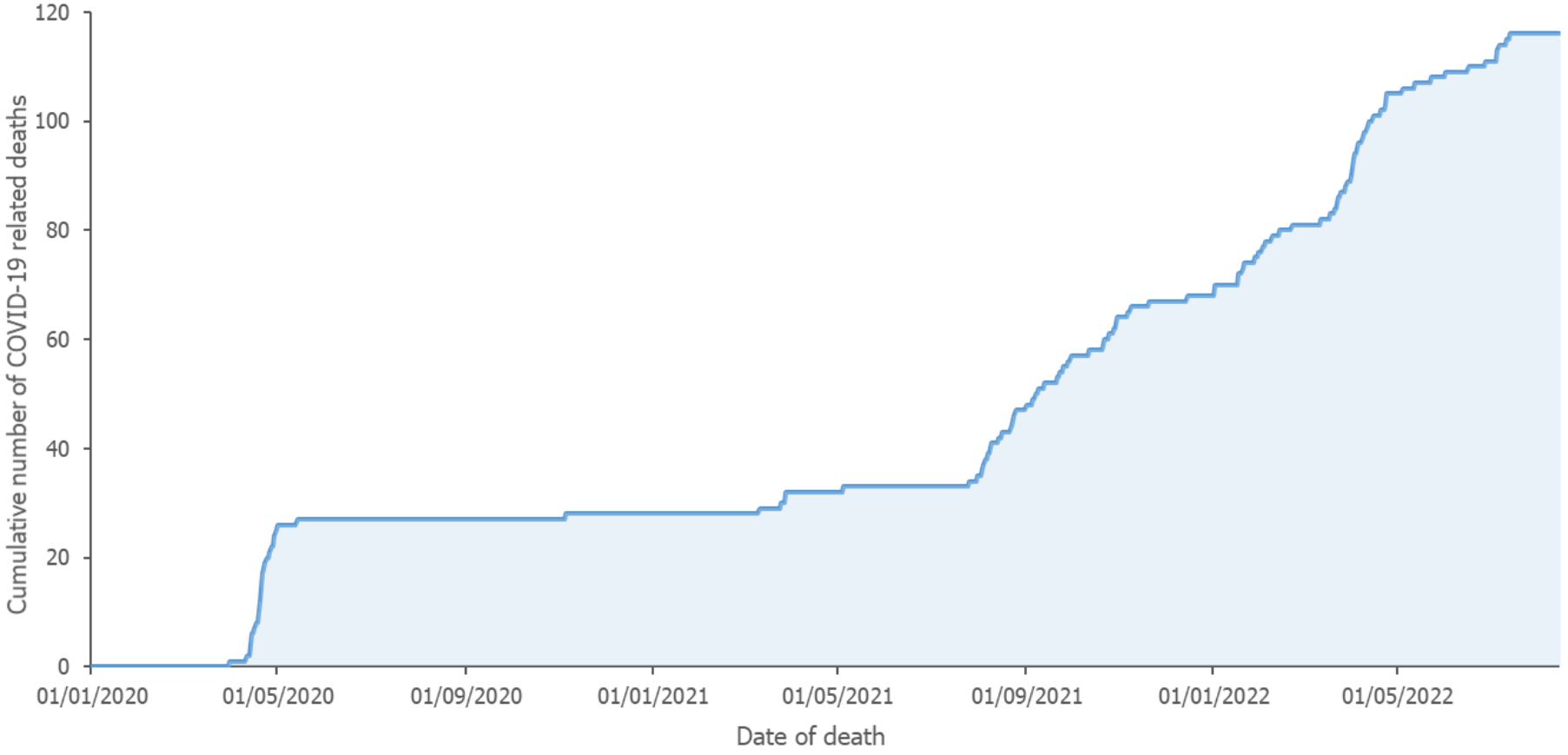
Weekly Deaths – Whole Pandemic



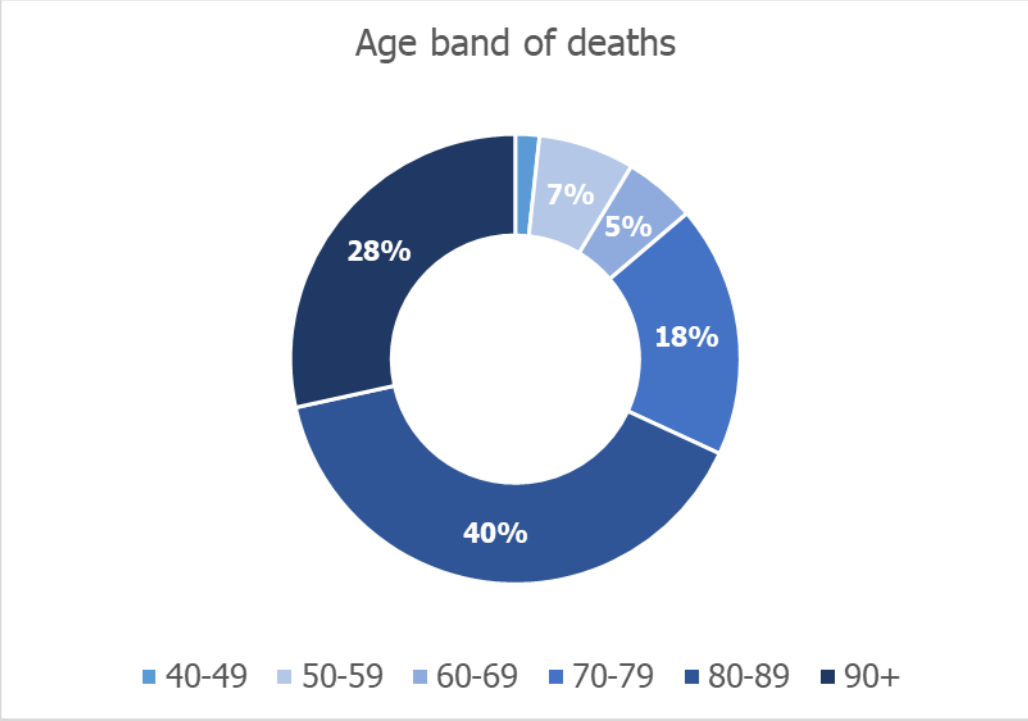
- *COVID-19 related deaths are those where COVID-19 is mentioned anywhere on the death certificate.
- Death registrations are often delayed and therefore deaths occurring in a given week may not be input into the week of which death occurred until a later date, meaning figures are likely to change retrospectively as data is updated. This also means that the most recent numbers will be incomplete at the time of release, and will update in subsequent reports.

Cumulative COVID-19 Related Deaths

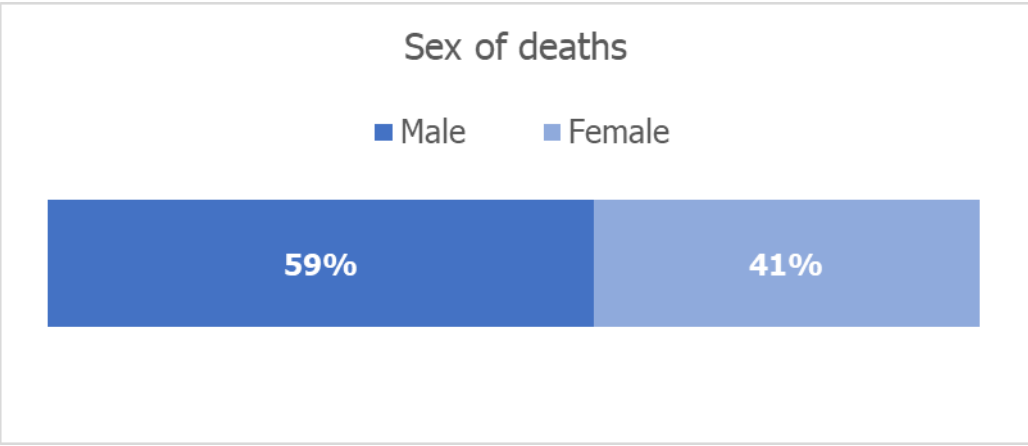
Cumulative COVID-19 related deaths = 116



COVID-Related Deaths Overview



Age band of deaths	No. of deaths	% of total deaths
40-49	2	1.7%
50-59	8	6.9%
60-69	6	5.2%
70-79	21	18.1%
80-89	46	39.7%
90+	33	28.4%



Place of death	No. of deaths
Hospital	53
Hospice	4
Nursing/Residential Home	46
Domestic Property	13

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(s)

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	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	07-Jan	0.86	26-Jan	0.67	14-Feb	0.92	05-Mar	1.20	24-Mar	0.71	12-Apr	0.90	01-May	0.28	20-May	0.79	08-Jun	2.76
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	08-Jan	0.30	27-Jan	0.46	15-Feb	1.34	06-Mar	1.57	25-Mar	0.70	13-Apr	0.79	02-May	0.63	21-May	0.90	09-Jun	6.85
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	09-Jan	0.31	28-Jan	0.56	16-Feb	1.37	07-Mar	3.96	26-Mar	0.56	14-Apr	0.69	03-May	0.50	22-May	0.60	10-Jun	3.83
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	10-Jan	0.77	29-Jan	0.53	17-Feb	0.70	08-Mar	2.77	27-Mar	0.57	15-Apr	0.49	04-May	0.38	23-May	1.22	11-Jun	4.95
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	11-Jan	0.76	30-Jan	0.63	18-Feb	1.16	09-Mar	3.18	28-Mar	1.17	16-Apr	0.37	05-May	0.44	24-May	1.21	12-Jun	10.00
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	12-Jan	0.55	31-Jan	1.48	19-Feb	0.87	10-Mar	1.44	29-Mar	1.20	17-Apr	0.45	06-May	0.73	25-May	0.65	13-Jun	9.62
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	13-Jan	0.35	01-Feb	1.22	20-Feb	1.03	11-Mar	1.41	30-Mar	0.83	18-Apr	1.25	07-May	0.78	26-May	0.35	14-Jun	9.20
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	14-Jan	0.27	02-Feb	1.03	21-Feb	2.37	12-Mar	1.35	31-Mar	0.34	19-Apr	1.90	08-May	0.63	27-May	0.95	15-Jun	6.61
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	15-Jan	0.33	03-Feb	0.31	22-Feb	3.05	13-Mar	2.15	01-Apr	0.75	20-Apr	0.59	09-May	1.32	28-May	0.35	16-Jun	11.21
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	16-Jan	0.50	04-Feb	0.57	23-Feb	3.05	14-Mar	2.90	02-Apr	0.35	21-Apr	0.66	10-May	2.07	29-May	0.88	17-Jun	6.20
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	17-Jan	0.71	05-Feb	0.32	24-Feb	1.17	15-Mar	3.99	03-Apr	0.54	22-Apr	0.51	11-May	1.38	30-May	0.57	18-Jun	1.93
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	18-Jan	0.73	06-Feb	0.36	25-Feb	1.15	16-Mar	3.41	04-Apr	0.79	23-Apr	0.53	12-May	1.13	31-May	0.88	19-Jun	1.86
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	19-Jan	0.76	07-Feb	0.91	26-Feb	1.61	17-Mar	1.55	05-Apr	0.93	24-Apr	0.47	13-May	0.96	01-Jun	1.00	20-Jun	2.23
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	20-Jan	0.28	08-Feb	0.48	27-Feb	1.49	18-Mar	1.37	06-Apr	0.92	25-Apr	0.75	14-May	0.90	02-Jun	0.48	21-Jun	1.24
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	21-Jan	0.30	09-Feb	0.66	28-Feb	3.44	19-Mar	0.81	07-Apr	0.51	26-Apr	0.69	15-May	0.96	03-Jun	1.13	22-Jun	0.91
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	03-Jan	2.80	22-Jan	0.32	10-Feb	0.41	01-Mar	3.82	20-Mar	1.25	08-Apr	0.43	27-Apr	0.55	16-May	1.15	04-Jun	1.67	23-Jun	0.77
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	04-Jan	4.74	23-Jan	0.38	11-Feb	0.32	02-Mar	3.27	21-Mar	2.22	09Apr	0.37	28-Apr	0.25	17-May	0.69	05-Jun	2.55	24-Jun	0.71
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	05-Jan	1.74	24-Jan	1.05	12-Feb	0.33	03-Mar	1.55	22-Mar	1.60	10-Apr	0.73	29-Apr	0.19	18-May	1.53	06-Jun	1.68	25-Jun	0.53
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	06-Jan	1.03	25-Jan	0.77	13-Feb	0.44	04-Mar	1.80	23-Mar	1.44	11-Apr	0.52	30-Apr	0.23	19-May	0.73	07-Jun	4.33	26-Jun	0.19

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Date	Daily R_t	Date	Daily R_t	Date	Daily R_t
27-Jun	0.39	16-Jul	0.39	04-Aug	0.89
28-Jun	0.69	17-Jul	0.30	05-Aug	1.13
29-Jun	0.33	18-Jul	0.63	06-Aug	0.36
30-Jun	0.41	19-Jul	0.79	07-Aug	2.00
01-Jul	0.53	20-Jul	1.41	08-Aug	1.25
02-Jul	0.36	21-Jul	0.62	09-Aug	2.30
03-Jul	0.31	22-Jul	0.54	10-Aug	1.58
04-Jul	0.32	23-Jul	0.40	11-Aug	0.35
05-Jul	0.39	24-Jul	0.44	12-Aug	0.48
06-Jul	0.60	25-Jul	0.39	13-Aug	0.57
07-Jul	0.53	26-Jul	0.94	14-Aug	0.44
08-Jul	0.57	27-Jul	1.29		
09-Jul	0.51	28-Jul	0.28		
10-Jul	0.20	29-Jul	0.52		
11-Jul	0.57	30-Jul	0.42		
12-Jul	0.77	31-Jul	0.46		
13-Jul	0.68	01-Aug	1.05		
14-Jul	0.65	02-Aug	1.44		
15-Jul	1.07	03-Aug	0.44		

References

[1] Coronavirus (COVID-19) Infection Survey, UK: 5 August 2022
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/5august2022

[2] 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

[3] https://www.gov.im/media/1375604/2021-01-27-census-report-part-i-final-2.pdf

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.

Produced on behalf of Professor Hugo van Woerden, Interim Director of Public Health.