

(b)

Death within 60 days of positive COVID-19 test by date of death between week 50 2021 and week 1 2022	Total**	Unlinked*	Not vaccinated	Received one dose (1 to 20 days before specimen date)	Received one dose, ≥21 days before specimen date	Second dose ≥14 days before specimen date¹
	[These data should be interpreted with caution. See information below in footnote about the correct interpretation of these figures]					
Under 18	11	0	11	0	0	-
18 to 29	28	1	18	1	0	8
30 to 39	86	1	47	0	5	33
40 to 49	142	3	84	0	6	49
50 to 59	344	2	153	1	18	170
60 to 69	621	13	213	0	25	370
70 to 79	925	7	218	2	41	657
80 or over	1,828	13	321	4	49	1,441

* Individuals whose NHS numbers were unavailable to link to the NIMS.

** number of deaths of people who had had a positive test result for COVID-19 and either died within 60 days of the first positive test or have COVID-19 mentioned on their death certificate.

¹ In the context of very high vaccine coverage in the population, even with a highly effective vaccine, it is expected that a large proportion of cases, hospitalisations and deaths would occur in vaccinated individuals, simply because a larger proportion of the population are vaccinated than unvaccinated and no vaccine is 100% effective. This is especially true because vaccination has been prioritised in individuals who are more susceptible or more at risk of severe disease. Individuals in risk groups may also be more at risk of hospitalisation or death due to non-COVID-19 causes, and thus may be hospitalised or die with COVID-19 rather than because of COVID-19.

Table 12. Unadjusted rates of COVID-19 infection, hospitalisation and death in vaccinated and unvaccinated populations.

Please note that the following table should be read in conjunction with pages 35 to 38 of this report, and the footnotes provided on page 43.

	Cases reported by specimen date between week 50 2021 and week 1 2022		Cases presenting to emergency care (within 28 days of a positive test) resulting in overnight inpatient admission, by specimen date between week 50 2021 and week 1 2022		Death within 28 days of positive COVID-19 test by date of death between week 50 2021 and week 1 2022		Death within 60 days of positive COVID-19 test by date of death between week 50 2021 and week 1 2022	
	[see information on population bases and unadjusted rates in footnotes 1 and 2 below this table]							
	Unadjusted rates among persons vaccinated with 2 doses (per 100,000) ^{1,2}	Unadjusted rates among persons not vaccinated (per 100,000) ^{1,2}	Unadjusted rates among persons vaccinated with 2 doses (per 100,000) ²	Unadjusted rates among persons not vaccinated (per 100,000) ²	Unadjusted rates among persons vaccinated with 2 doses (per 100,000) ²	Unadjusted rates among persons not vaccinated (per 100,000) ²	Unadjusted rates among persons vaccinated with 2 doses (per 100,000) ²	Unadjusted rates among persons not vaccinated (per 100,000) ²
Under 18	2,356.6	3,376.1	1.8	10.9	0.0	0.1	0.0	0.1
18 to 29	8,926.0	4,058.9	10.5	16.9	0.1	0.5	0.1	0.6
30 to 39	7,618.8	3,268.8	10.2	21.1	0.4	1.3	0.5	1.7
40 to 49	6,330.1	2,585.9	11.3	32.9	0.6	4.2	0.8	5.1
50 to 59	4,796.2	2,117.0	13.6	61.5	1.8	11.6	2.4	15.3
60 to 69	3,099.9	1,477.9	17.8	100.4	4.9	34.0	6.4	40.0
70 to 79	1,926.2	1,059.6	32.1	170.5	10.1	81.3	13.9	90.4
80 or over	1,657.7	1,262.9	88.7	330.8	42.4	246.7	54.3	262.2

¹ Comparing case rates among vaccinated and unvaccinated populations should not be used to estimate vaccine effectiveness against COVID-19 infection. Vaccine effectiveness has been formally estimated from a number of different sources and is summarised on pages 5 to 18 in this report.

The rates are calculated per 100,000 in people who have received either 2 doses of a COVID-19 vaccine or in people who have not received a COVID-19 vaccine. These figures are updated each week as the number of unvaccinated individuals and individuals vaccinated with 2 doses in the population changes.

The case rates in the vaccinated and unvaccinated populations are unadjusted crude rates that do not take into account underlying statistical biases in the data and there are likely to be systematic differences between these 2 population groups. For example:

- people who are fully vaccinated may be more health conscious and therefore more likely to get tested for COVID-19 and so more likely to be identified as a case (based on the data provided by the NHS Test and Trace)
- many of those who were at the head of the queue for vaccination are those at higher risk from COVID-19 due to their age, their occupation, their family circumstances or because of underlying health issues
- people who are fully vaccinated and people who are unvaccinated may behave differently, particularly with regard to social interactions and therefore may have differing levels of exposure to COVID-19
- people who have never been vaccinated are more likely to have caught COVID-19 in the weeks or months before the period of the cases covered in the report. This gives them some natural immunity to the virus which may have contributed to a lower case rate in the past few weeks

² Case rates are calculated using NIMS - a database of named individuals from which the numerator and the denominator come from the same source and there is a record of each individuals vaccination status. Further information on the use of NIMS as the source of denominator data is presented on page 37 of this report.

Unadjusted case rates among persons vaccinated have been formatted in grey to further emphasise the caution to be employed when interpreting these data.