

# COVID-19 in Northern Ireland

## Vaccination Status of Deaths and Hospitalisations

Weeks 35 to 38 (30<sup>th</sup> August to 26<sup>th</sup> September 2021)

# Summary

- The COVID-19 vaccination program for Northern Ireland began in December 2020. By September 2021 approximately 2.5 million doses of the vaccine have been administered, with 88% of adults receiving their first dose and 82% receiving their second dose.
- Ongoing monitoring of vaccine performance is necessary to support Public Health policy as the vaccination program progresses.
- This report presents results for Northern Ireland on the vaccination status of patients who have been hospitalised from COVID-19 and of those who have died from COVID-19 for weeks 35 to 38 (30<sup>th</sup> August to 26<sup>th</sup> September 2021).

## Hospital Admissions

- Three-quarters of adult inpatients aged under 50 are unvaccinated. 22% of inpatients aged 50 and over are unvaccinated.
- Unvaccinated individuals aged 50 and over are **5 times** as likely to be admitted to hospital than fully vaccinated individuals.
- For adults under 50, whilst the numbers admitted to hospital are lower, an unvaccinated individual is almost **18 times** as likely to need hospitalisation.

## Deaths

- Unvaccinated individuals aged 50 and over are almost **4 times** as likely to die.
- These results should be interpreted in the context of vaccine coverage in the Northern Ireland population (**Figures 1 and 2**). The success of the vaccination programme has resulted in a very small percentage of unvaccinated individuals, particularly for the older age cohorts. When there is a 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. This is 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. Death and admissions rates per 100,000 should therefore be interpreted with caution.

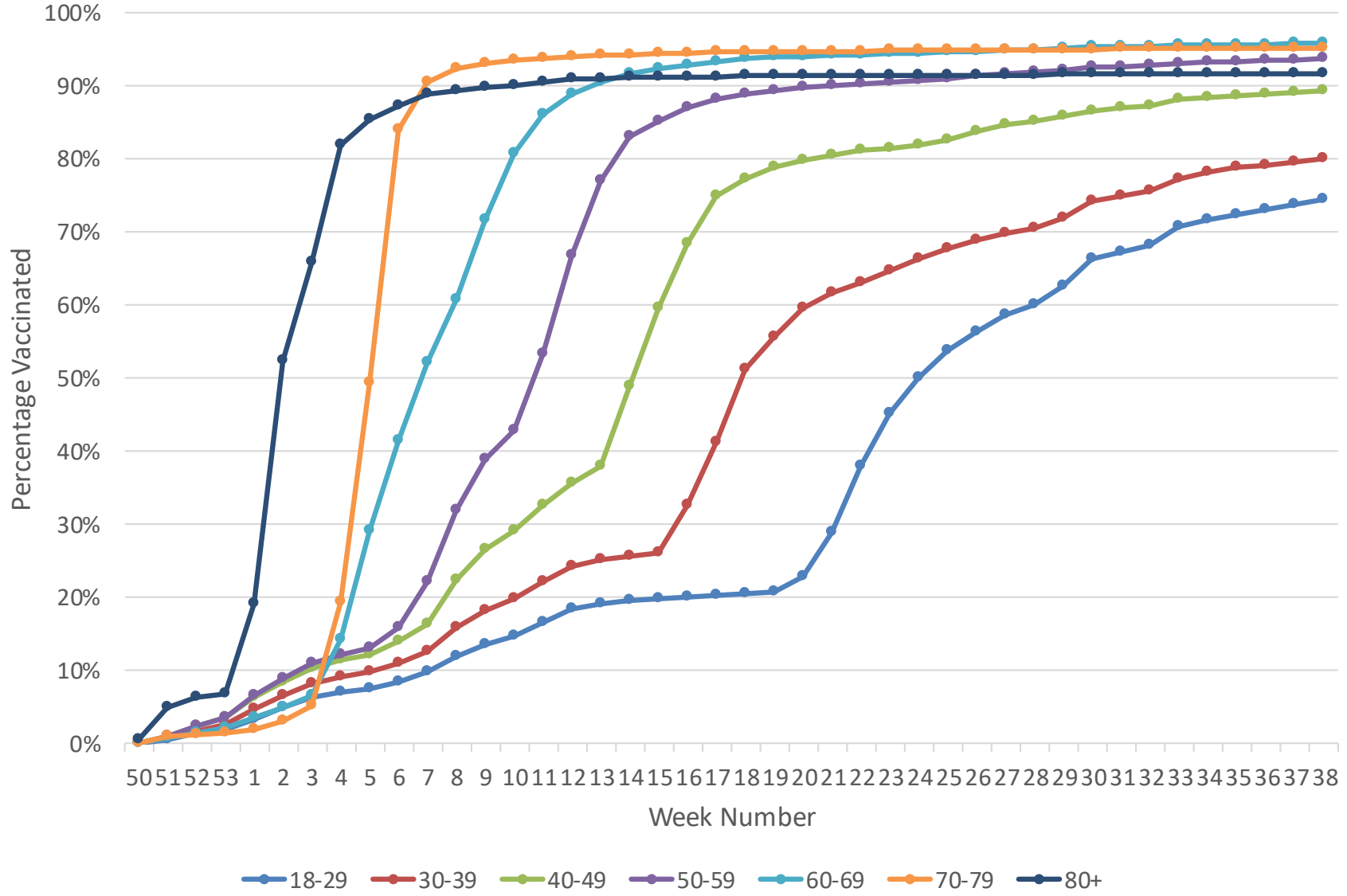
# Vaccination Status

## Methods

- Patients admitted to hospital with COVID-19 are identified using specific Method of Admission Codes. Transfers between hospitals are counted as one admission. Patients are allocated to an age cohort based on their age at date of admission. Patient records are continually updated by HSC Trusts and thus historical data is subject to revision.
- The number of deaths is as reported to the Public Health Agency where the deceased has had a positive test for COVID-19 and dies within 28 days, whether or not COVID-19 was the cause of death. Patients are allocated to an age cohort based on their age at date of death.
- Further details on the definition of admissions and deaths is provided on the Department of Health COVID-19 [dashboard](#).
- The vaccination status of each patient is determined by matching the admission and deaths cases with the vaccination status of the Patient as recorded on the Northern Ireland Vaccine Management System (VMS). If it is not possible to match an admission or death against the vaccination status of the patient on the VMS then the individual is recorded as 'Missing'.
- A person is deemed vaccinated, with a first or second dose, if the date of vaccination is greater than or equal to 14 days before date of admission, or for deaths, if the date of vaccination is greater than or equal to 14 days before date of specimen.
- The number of vaccinated individuals in the population is taken from the VMS with age cohorts calculated at date of vaccination.
- The calculation of the number of unvaccinated individuals in the population requires an estimate of the total population in each age cohort. This was provided by NISRA based on their 2021 [mid year population projections](#).

# Vaccine Coverage

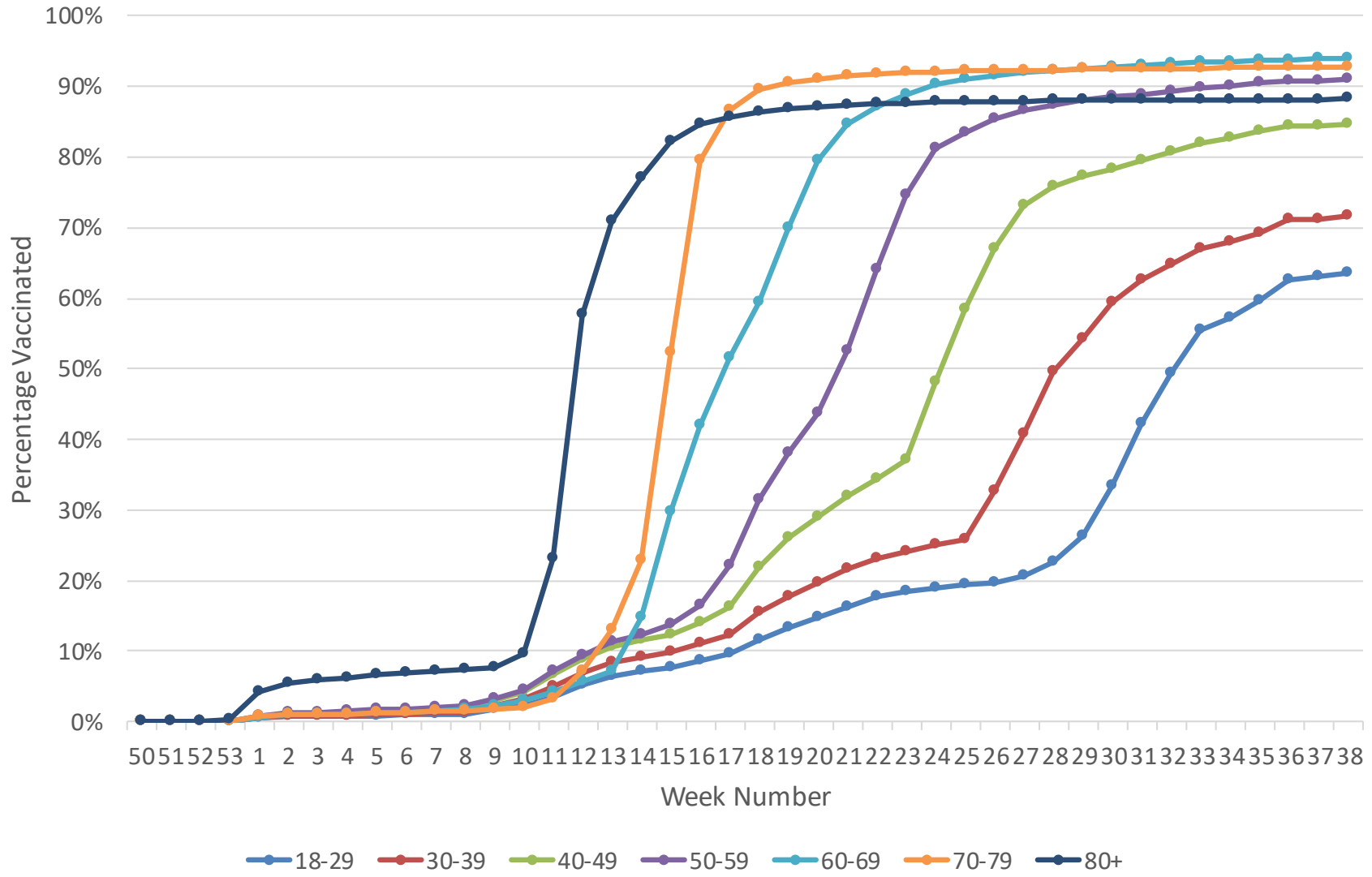
Figure 1: First dose cumulative vaccine uptake by week number and age group (December 2020 to 26<sup>th</sup> September 2021)



The percentage vaccinated is calculated using the 2021 mid-year population projections

# Vaccine Coverage

Figure 2: Second dose cumulative vaccine uptake by week number and age group (December 2020 to 26<sup>th</sup> September 2021)



The percentage vaccinated is calculated using the 2021 mid-year population projections

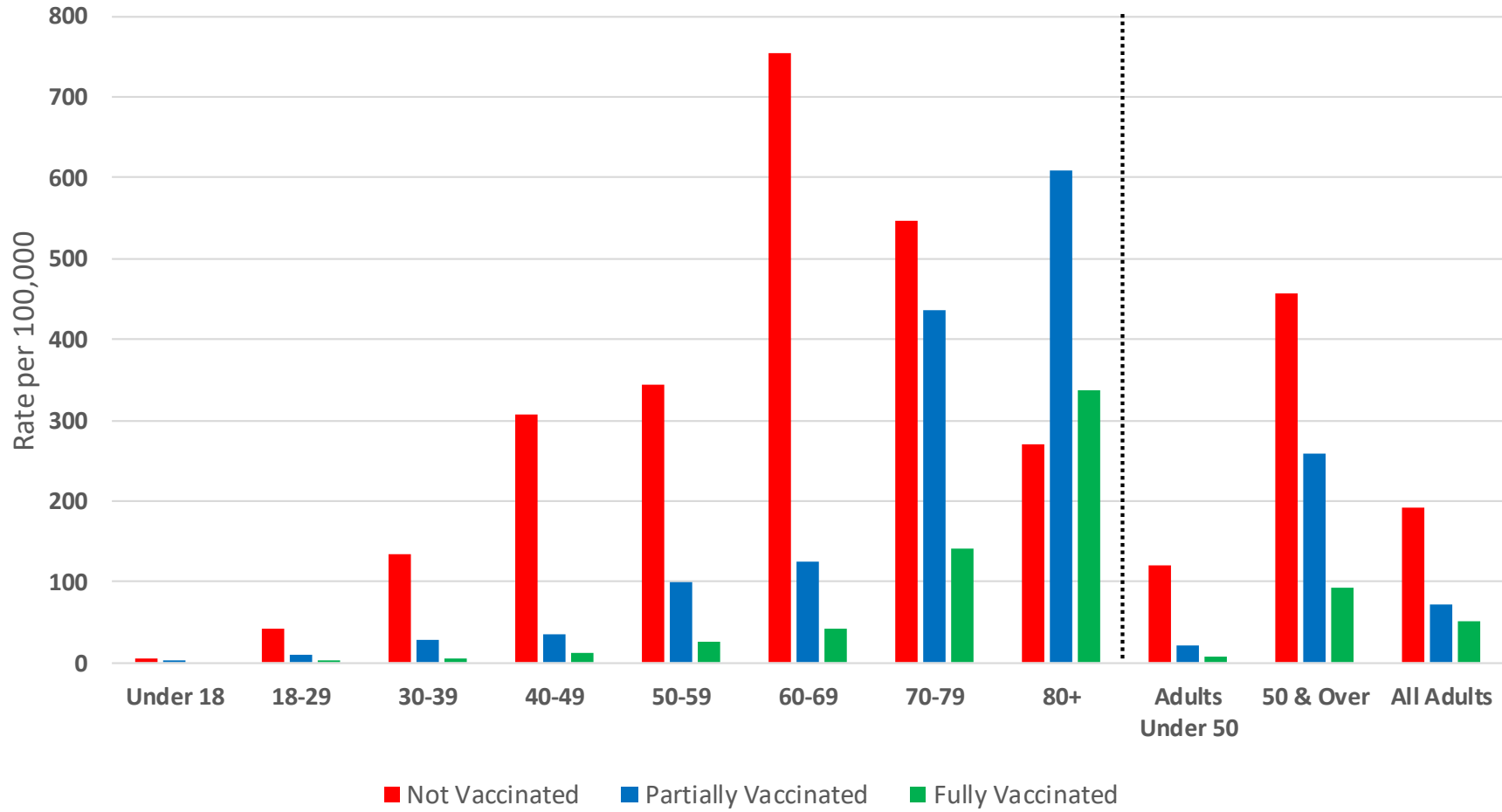
# Vaccination Status – Hospital Admissions

**Table 1: COVID-19 cases admitted to hospital between 30<sup>th</sup> August and 26<sup>th</sup> September 2021**

Age Cohort	Not Vaccinated	Missing	Partially Vaccinated	Fully Vaccinated	Total Admissions	Rates Admitted to Hospital per 100,000		
						Not Vaccinated	Partially Vaccinated	Fully Vaccinated
Under 18	22	0	1	0	23	5.3	3.8	0.0
18-29	30	1	3	7	41	42.7	9.9	4.0
30-39	67	3	6	8	84	133.9	27.9	4.4
40-49	79	1	4	23	107	306.9	35.4	11.3
50-59	56	0	7	63	126	342.8	98.6	26.7
60-69	64	0	5	79	148	753.1	124.9	41.0
70-79	39	2	16	196	253	546.2	435.6	140.7
80+	19	0	18	251	288	271.0	609.8	336.5
Adults Under 50	176	5	13	38	232	120.5	20.6	6.8
50 & Over	178	2	46	589	815	456.6	259.5	91.7
All Adults	354	7	59	627	1047	191.4	73.0	52.2

# Vaccination Status – Hospital Admissions per 100,000

Figure 3: COVID-19 cases admitted to hospital between 30<sup>th</sup> August and 26<sup>th</sup> September 2021



# Vaccination Status – Deaths

Table 2: COVID-19 deaths within 28 days of a positive test between 30<sup>th</sup> August and 26<sup>th</sup> September 2021

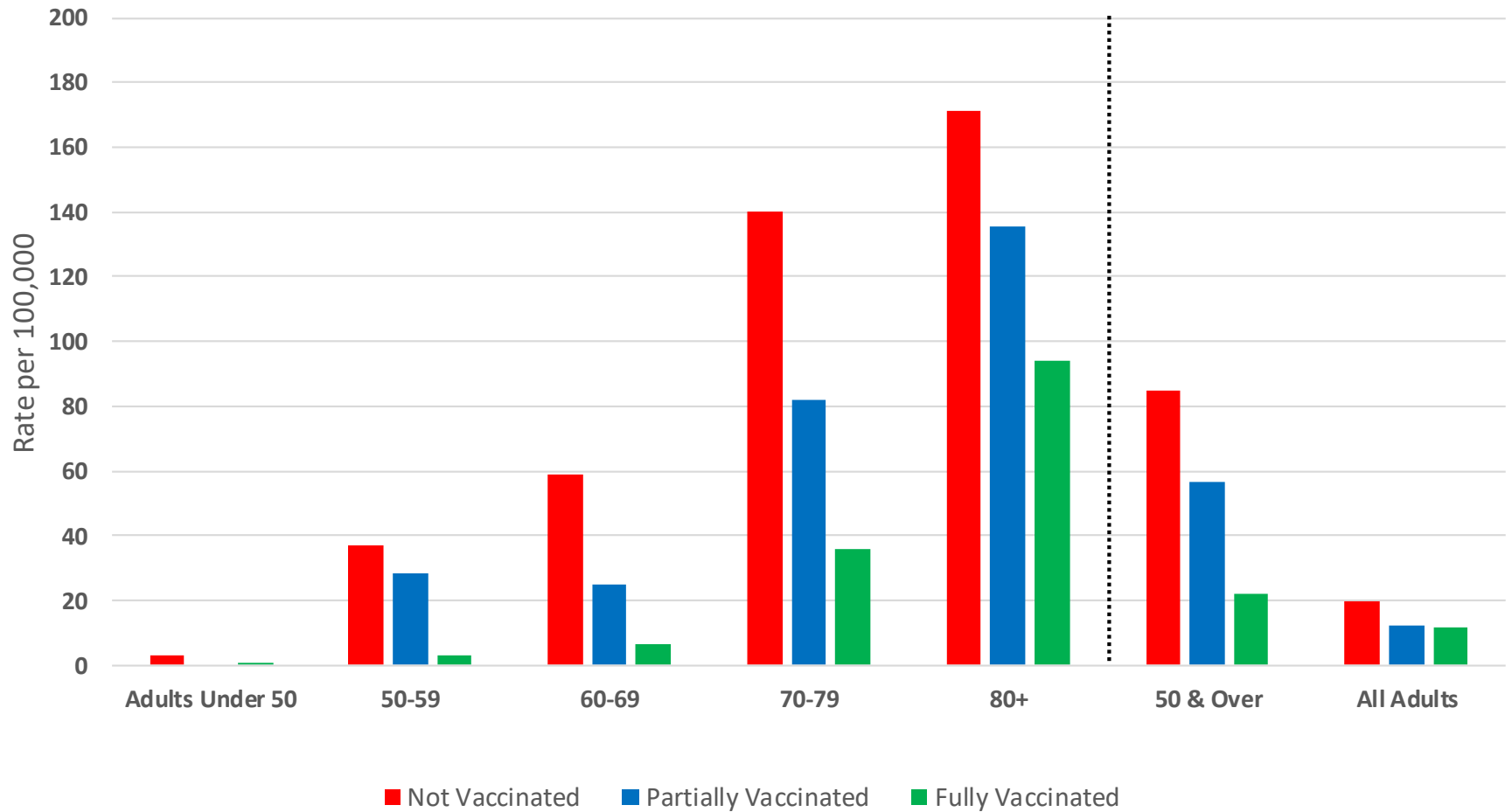
Age Cohort	Not Vaccinated	Missing	Partially Vaccinated	Fully Vaccinated	Total Deaths	Death Rates per 100,000		
						Not Vaccinated	Partially Vaccinated	Fully Vaccinated
Adults Under 50*	4	0	0	1	5	2.7	0.0	0.2
50-59	6	1	2	7	16	36.7	28.2	3.0
60-69	5	0	1	13	19	58.8	25.0	6.7
70-79	10	0	3	50	63	140.1	81.7	35.9
80+	12	1	4	70	87	171.2	135.5	93.9
50 & Over	33	2	10	140	185	84.6	56.4	21.8
All Adults	37	2	10	141	190	20.0	12.4	11.7

\* Age cohorts below 50 are not provided to avoid potential disclosure of individual details.



# Vaccination Status – Deaths per 100,000

Figure 4: COVID-19 deaths within 28 days of a positive test between 30<sup>th</sup> August and 26<sup>th</sup> September 2021





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