Vaccination Status of COVID-19 Deaths in Ireland between 1st April 2021 and 30th October 2021

Key points

Between April 1st and October 30th 2021

- 535 persons with a laboratory confirmed COVID-19 infection, were notified to the Health Protection Surveillance Centre (HPSC) as having died due to COVID-19.
- 222/535 (41.5%) deaths were notified in persons who were not vaccinated or not registered as vaccinated on Ireland’s national COVID-19 immunisation system (COVAX).
- 313/535 (58.5%) deaths were notified in persons who had received at least one dose of COVID-19 vaccine prior to death.
- 253/535 (47.3%) of the notified deaths had an epidemiological date 14 days or more after receiving both doses of a 2-dose regimen or 1 dose of a 1-dose regimen and are considered as vaccine breakthrough infections – see technical note.

Five hundred and thirty-five deaths in laboratory confirmed COVID-19 cases, reported with COVID-19 as the cause of death, have been notified to HPSC with a date of death between 1st April 2021 and 30th October 2021, as of 1st November 2021. In total, 313 persons had been vaccinated with at least one dose of COVID-19 vaccine prior to death.

Two hundred and fifty-three of those who died had an epidemiological date of COVID-19 infection 14 days or more after receiving both doses of a 2-dose regimen or 1 dose of a 1-dose regimen COVID-19 vaccine, therefore there are 253 breakthrough infections1 between April 1st and October 30th, 2021 (see technical notes).

Of these two hundred and fifty-three individuals:

- 138 were male and 115 were female.
- 84 died in October 2021, 104 in September 2021, 54 in August 2021 and 11 between 1st April 2021-31st July 2021.
- Median age was 81 years (range: 35 to 100 years); Mean age was 80 years.
- 183 persons (72.3%) were reported on CIDR to have an underlying medical condition.2

Report prepared by HPSC Epidemiology Team, 02.11.2021, CIDR data extracted at 10.00am on 01.11.2021

1 See technical notes for a definition of epidemiological date and vaccine breakthrough
2 Information on underlying medical conditions is incomplete for this cohort and validation of these data is ongoing.
Acknowledgements

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Technical notes

1. Data Source
Data were extracted from CIDR on 01.11.2021 at 10:00am and were correct at that time. Data may change in future reports as further review and validation are carried out.

2. Vaccination status of the adult population in Ireland
Data in these reports should be interpreted in the context of vaccine coverage. As the vast majority (90%) of the adult population in Ireland is currently fully vaccinated, even with a highly effective vaccine, we expect to see more deaths in this vaccinated group than the much smaller group who are unvaccinated.

3. Period of analysis
This report includes data on COVID-19 deaths notified to HPSC with a date of death on/after 1st April 2021 up to midnight October 30th. Currently, data on COVID-19 vaccination status of COVID-19 deaths are manually updated in Ireland’s Computerised Infectious Disease Reporting System (CIDR). Robotic solutions are being established to link data on Ireland’s national COVID-19 immunisation system to CIDR. Once these automated robotic processes are fully implemented for CIDR, the period of analysis will extend to include data from 1st January 2021.

4. Definition of COVID-19 vaccine breakthrough infection for surveillance purposes
For the purposes of this report, the Health Protection Surveillance Centre has defined a COVID-19 vaccine breakthrough infection as a laboratory confirmed SARS-CoV-2 infection in a person ≥14 days after they have completed both doses of a 2-dose regimen or 1 dose of a 1-dose regimen. However, it is recognised that people with immunosuppression (as per NIAC guidance) will require an additional dose as part of their primary course of vaccination. HPSC COVID-19 vaccine breakthrough infection reports do not currently include data on additional COVID-19 doses (for those immunocompromised or those receiving booster doses).

5. Definition of Epidemiological date
Epidemiological date (epi date) is used to determine timing of SARS-CoV-2 infection. Epi date is based on the earliest of dates available on the case and taken from date of onset of symptoms, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date or event creation date/notification date reported on Ireland’s Computerised Infectious Disease Reporting System (CIDR).

6. Vaccine brand
This report does not include information on vaccine brand. Ireland has received and administered more of some vaccine brands than others and additionally, each vaccine has a different dosing schedule so some people reach their 14th day after vaccination more quickly than others. These factors make it difficult to directly compare by vaccine brand.