Weekly Report on Hospitalisations and Vaccinations

15th February 2022

Interpretation of findings

Key points to note when interpreting this data

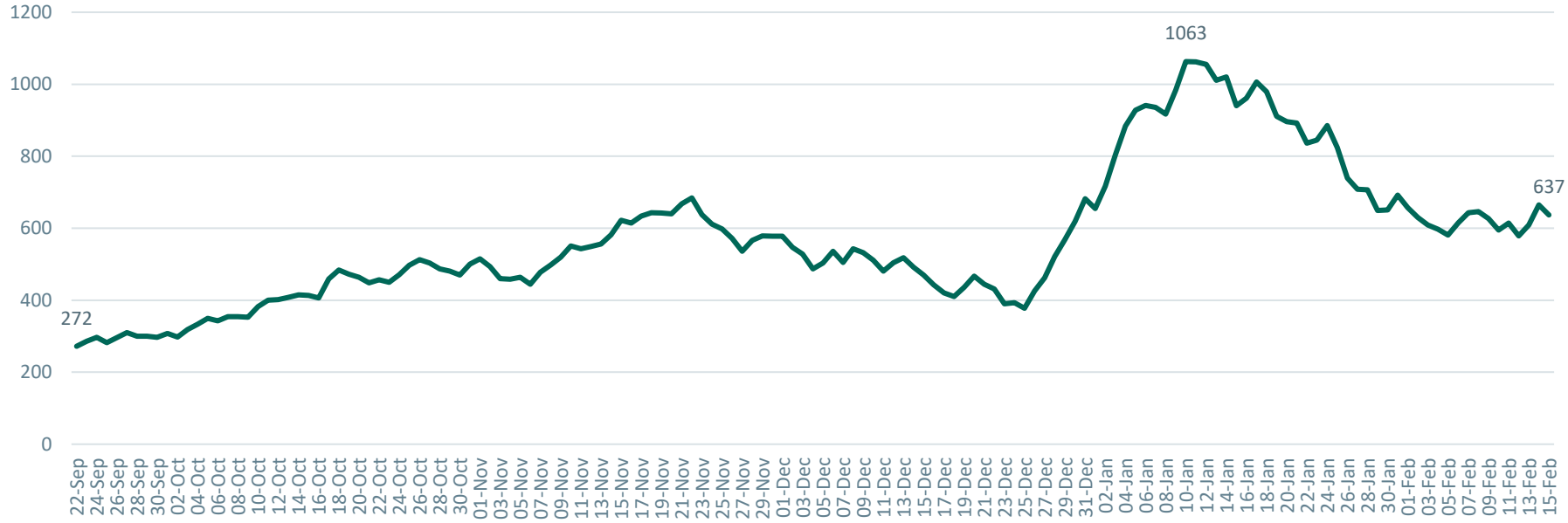
Emerging trends:

- The number of COVID-19 cases hospitalised has begun to decrease slightly after an increase in the previous week.
- The number of COVID-19 cases hospitalised experienced a decrease of **-1% (-9)** on past 7 days and **-3% (-20)** on past 14 days.
- The proportion of patients admitted to hospital who have completed primary vaccination remains stable this week (65% of all COVID-19 admissions);
- Patients who have completed primary vaccination currently represent 54% of ICU admissions, non-vaccinated patients represent 41% and partially vaccinated patients represent 2% of cases, with the status of 2 patients unknown (3%);
- There are currently 63 patients in ICU, this is a **-13% (-9)** decrease in the past 7 days and is a **-14% (-6)** decrease on the past 14 days;
- Of hospitalised COVID-19 cases, **52% (n=377)** of COVID-19 cases require hospital care for disease caused by COVID-19; and
- The remaining patients are infectious asymptomatic (48%)**.**

Please note due to the various data sources used to collect this information (manual, SBAR, NOCA data) and the different time points there will be variations in the number of cases. Based on the hospital returns the data figure used throughout this report for hospitalisations is 729, this is greater than the 8am admission figure of 635 presented on pg. 4

Hospitalised Cases

Total Confirmed COVID-19 Cases Admitted to our Acute Hospitals



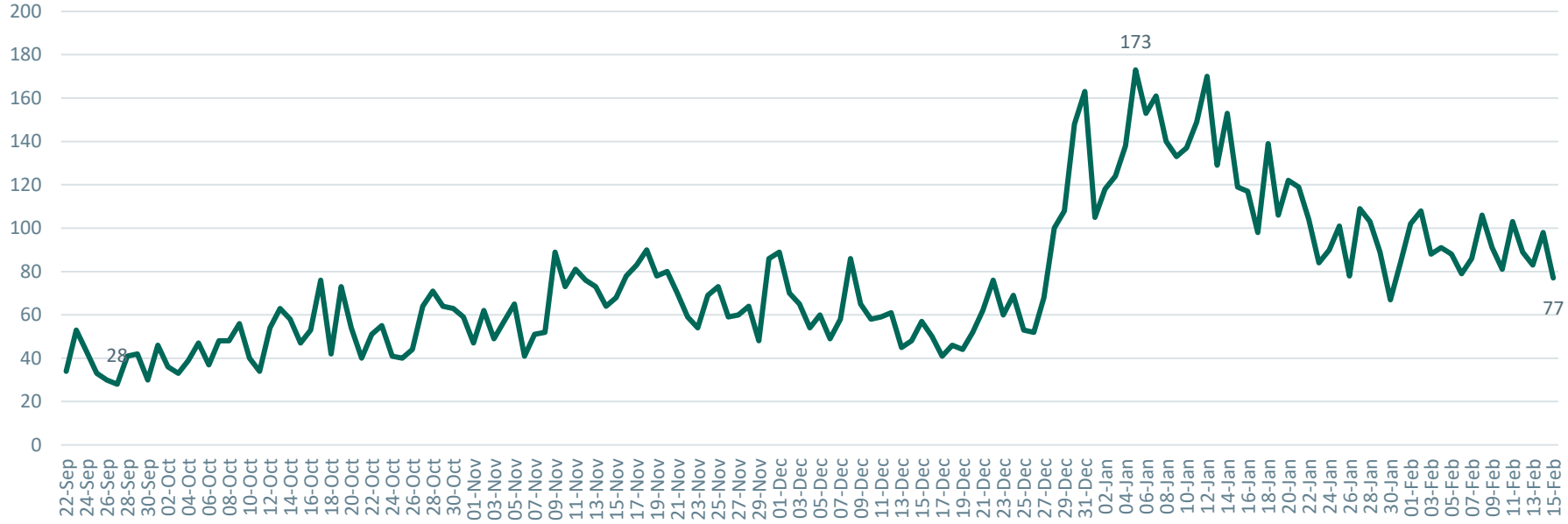
The highest confirmed COVID-19 cases admitted on site during the period was **1,063** on 10th January, with the lowest occurring on 22nd September (n=272).

In the past 7 days, the number of COVID-19 cases admitted decreased by **-1% (-9).**

In the past 14 days, the number of COVID-19 cases admitted decreased by **-3% (-20).**

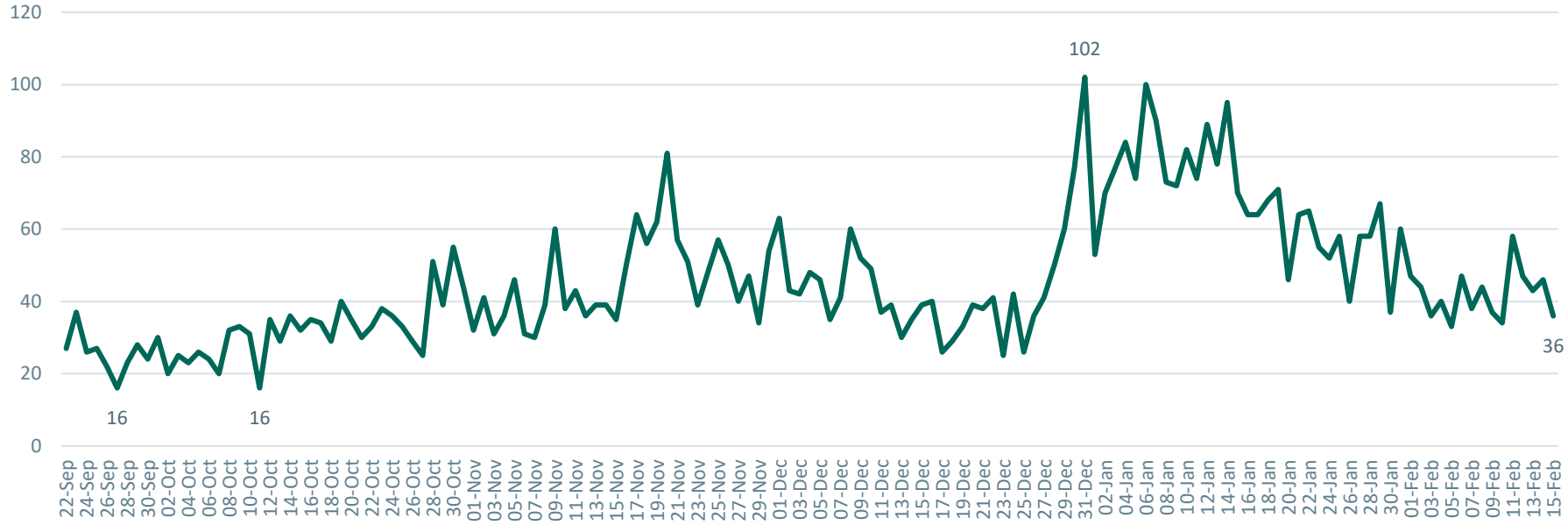
The highest number of total cases admitted on site during the previous surge period was **2,020** (18th January 2021).

Total New Confirmed COVID-19 Cases (Past 24 Hours)



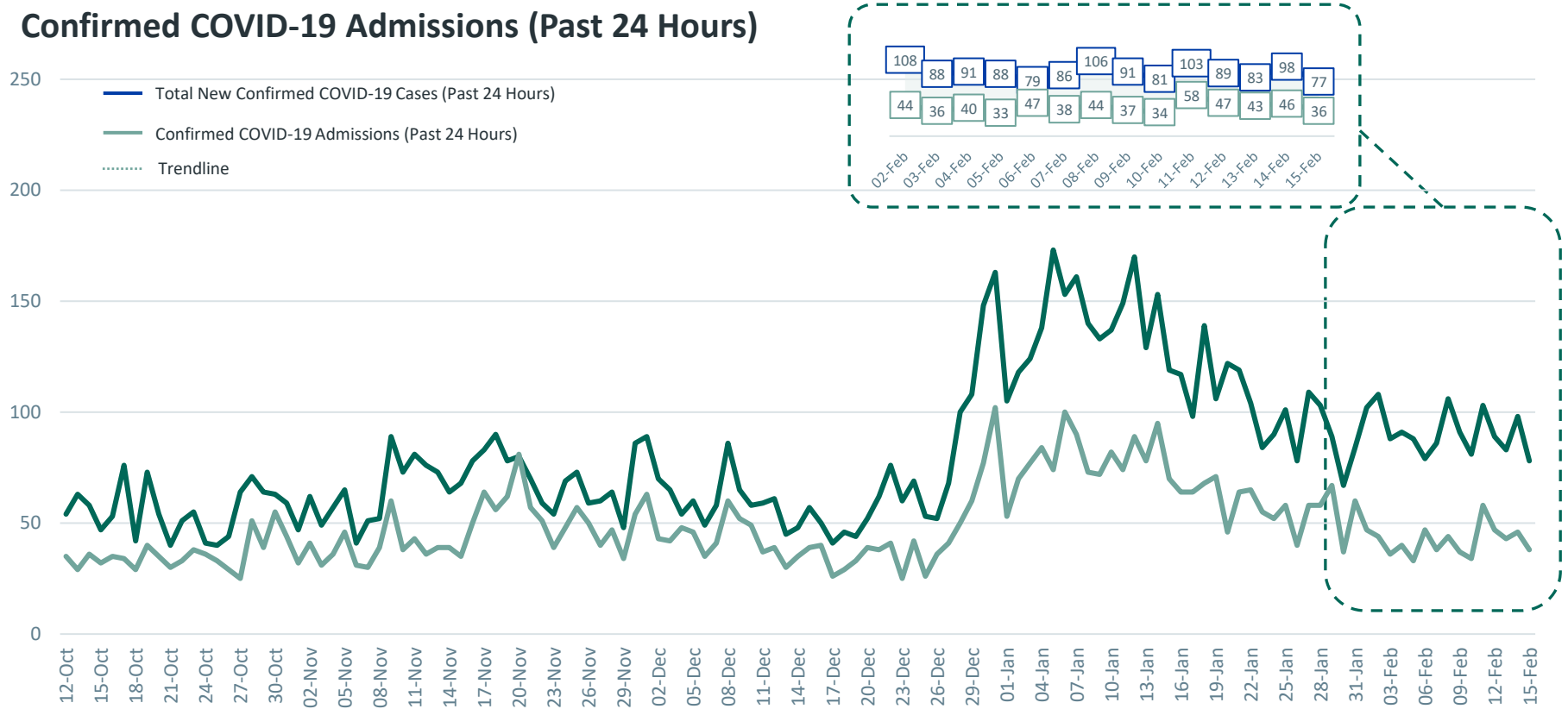
The highest new COVID-19 cases confirmed on site (admissions and those detected post admission) during the period was **173** on 5th January, with the lowest occurring on 27th September (n=28).
The highest number of total confirmed COVID-19 cases (past 24 hours) admitted on site during the previous surge period was **209** (12th January 2021).

Confirmed COVID-19 Admissions (Past 24 Hours)

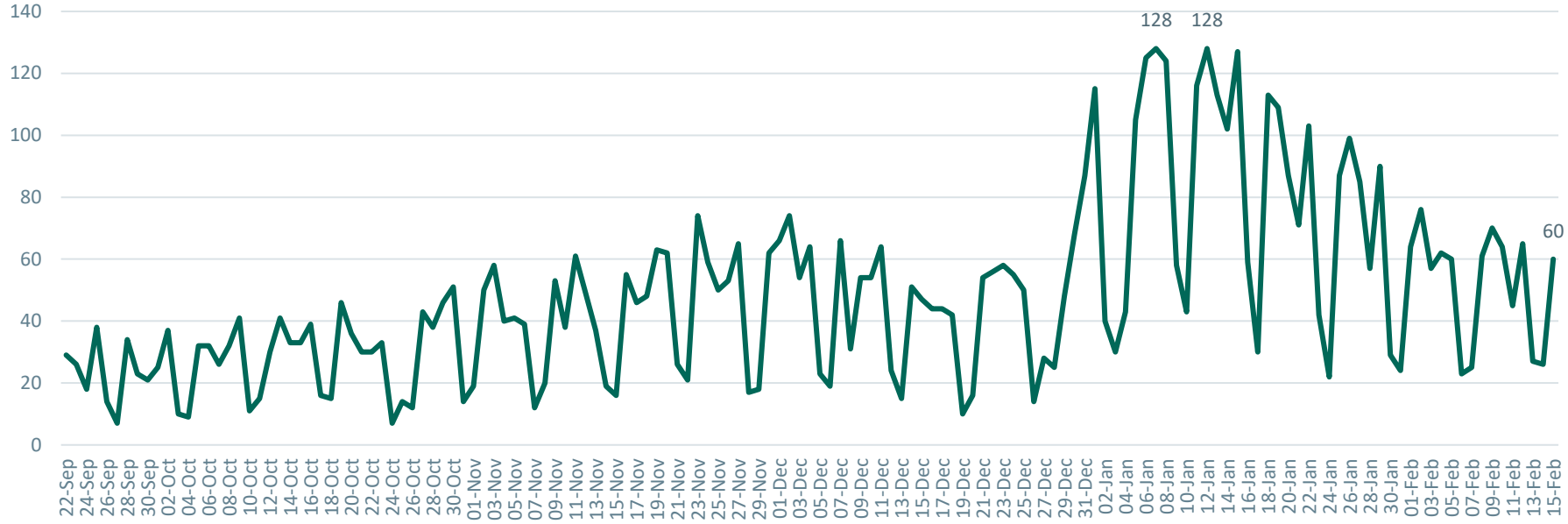


The highest number of COVID-19 admissions during the period was **102** on 31st December, with the lowest occurring on 27th September and 11th October (n=16).

Total New Confirmed COVID-19 Cases (Past 24 Hours) versus Confirmed COVID-19 Admissions (Past 24 Hours)



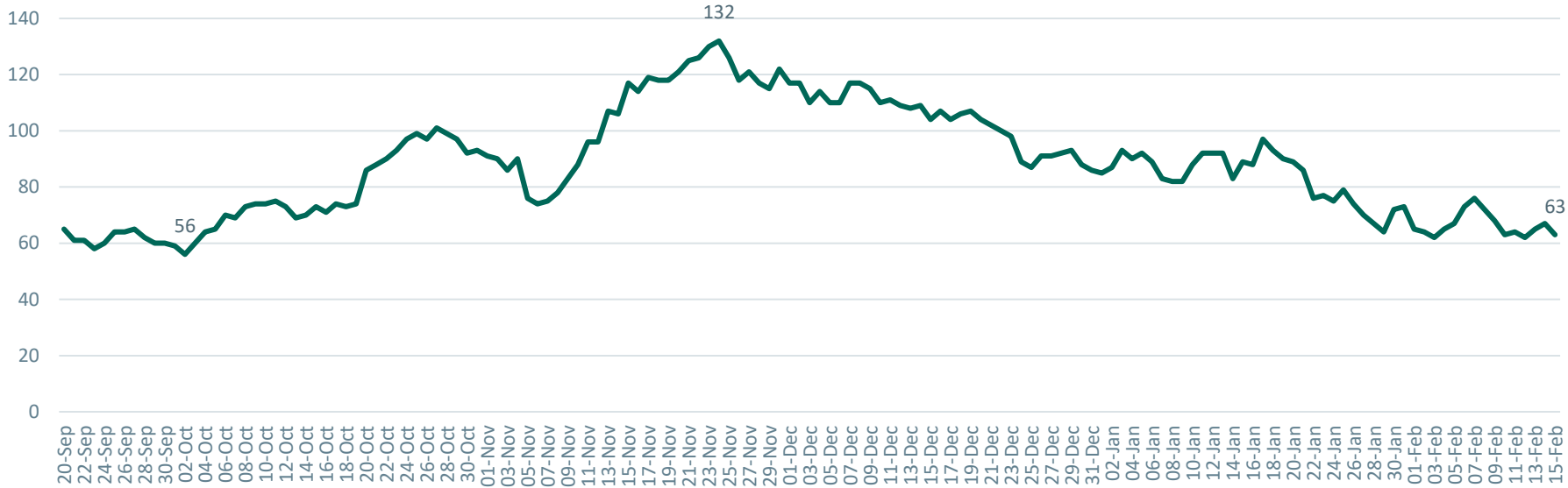
Confirmed COVID-19 Discharges (Past 24 Hours)



The highest number of COVID-19 patients discharged during the period was **128** on 7th and 12th January, with the lowest occurring on 20th September (n=4).

ICU (Data as per ICU Bed Information System (National Office of Clinical Audit (NOCA))

Confirmed COVID-19 Patients in ICU



The highest number of confirmed COVID-19 cases in ICU during the period was **132** which occurred on 24th November, with the lowest occurring from 2nd October (n=56).

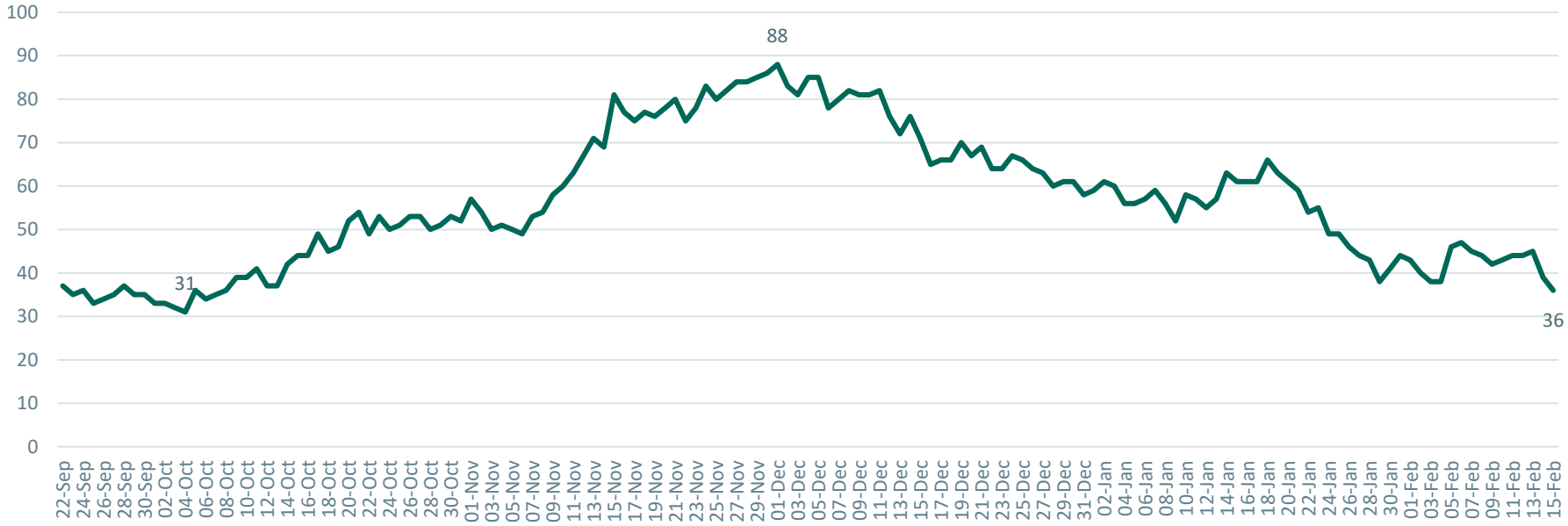
In the past 7 days, the number of COVID-19 cases in ICU has decreased by **-13% (-9).**

In the past 14 days, the number of COVID-19 cases in ICU has decreased by **-3% (-2).**

The highest number of patients with COVID-19 in the ICU during the last surge period was **221** (22nd January 2021).

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

COVID-19 Patients Invasively Ventilated in ICU



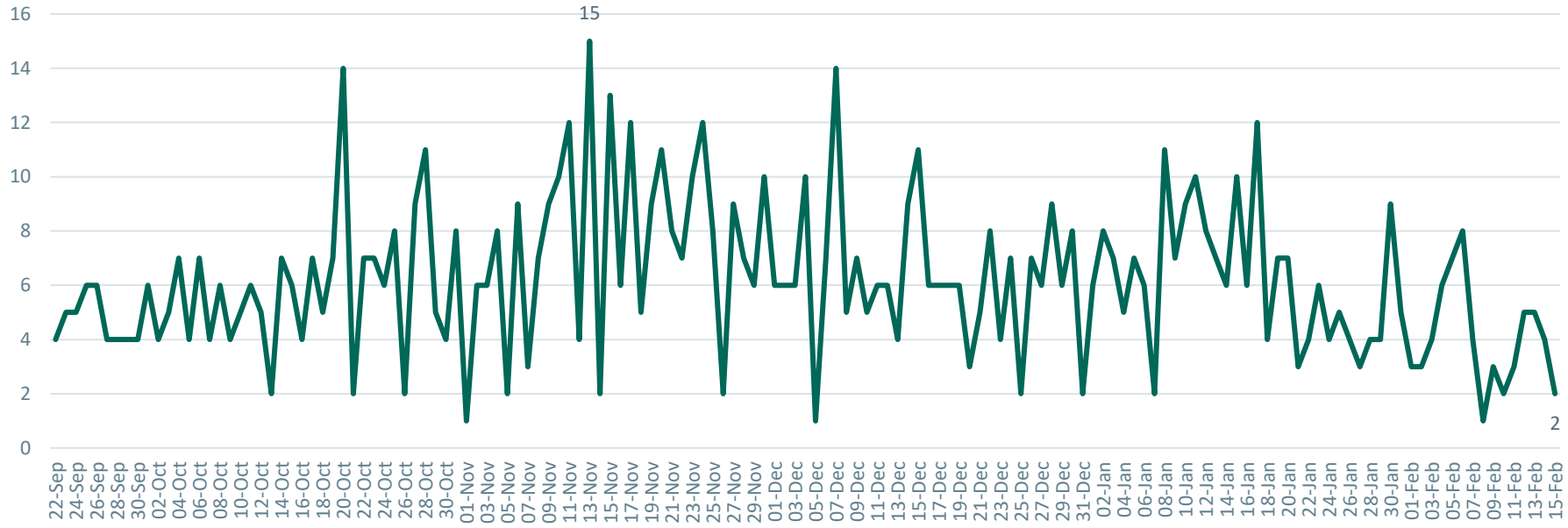
The highest number of confirmed COVID-19 patients invasively ventilated in ICU during the period was **88** on 1st December with the lowest occurring on 4th October (n=31).

In the past 7 days, the number of COVID-19 patients invasively ventilated in ICU decreased by **-18% (-8).**

In the past 14 days, the number of COVID-19 patients invasively ventilated in ICU decreased by **-16% (-7).**

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

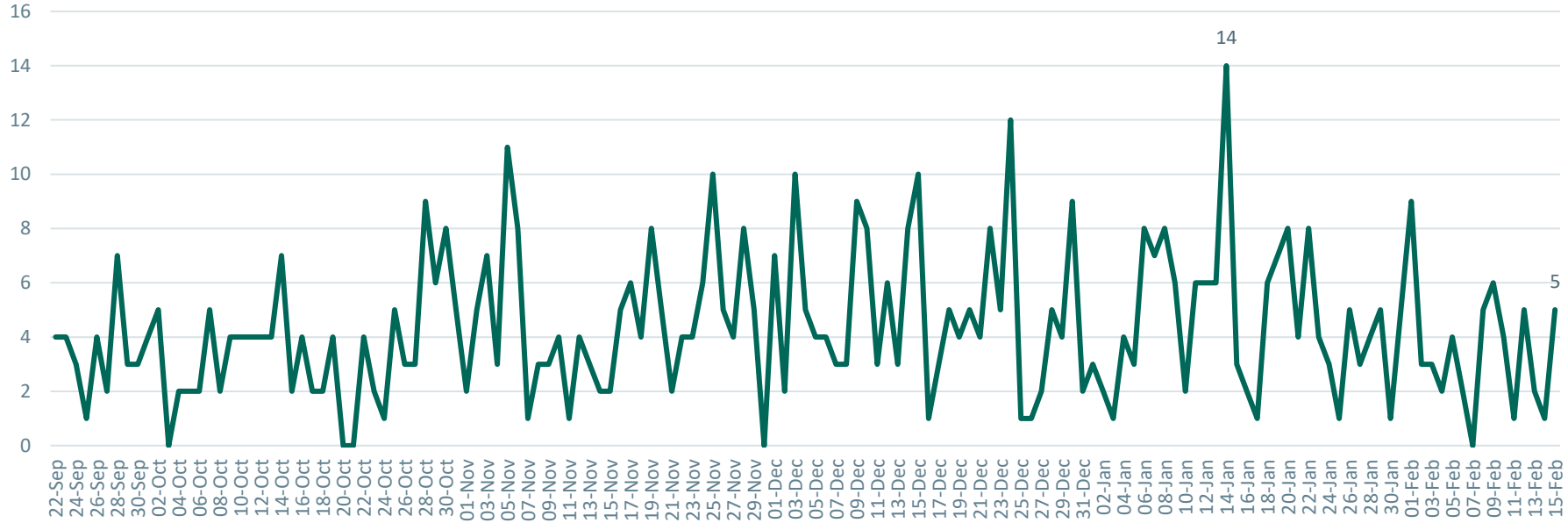
Confirmed COVID-19 ICU Admissions (Past 24 Hours)



The highest number of COVID-19 admitted to ICU during the period was **15** on 13th November.

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

Confirmed COVID-19 ICU Discharges (Past 24 Hours)

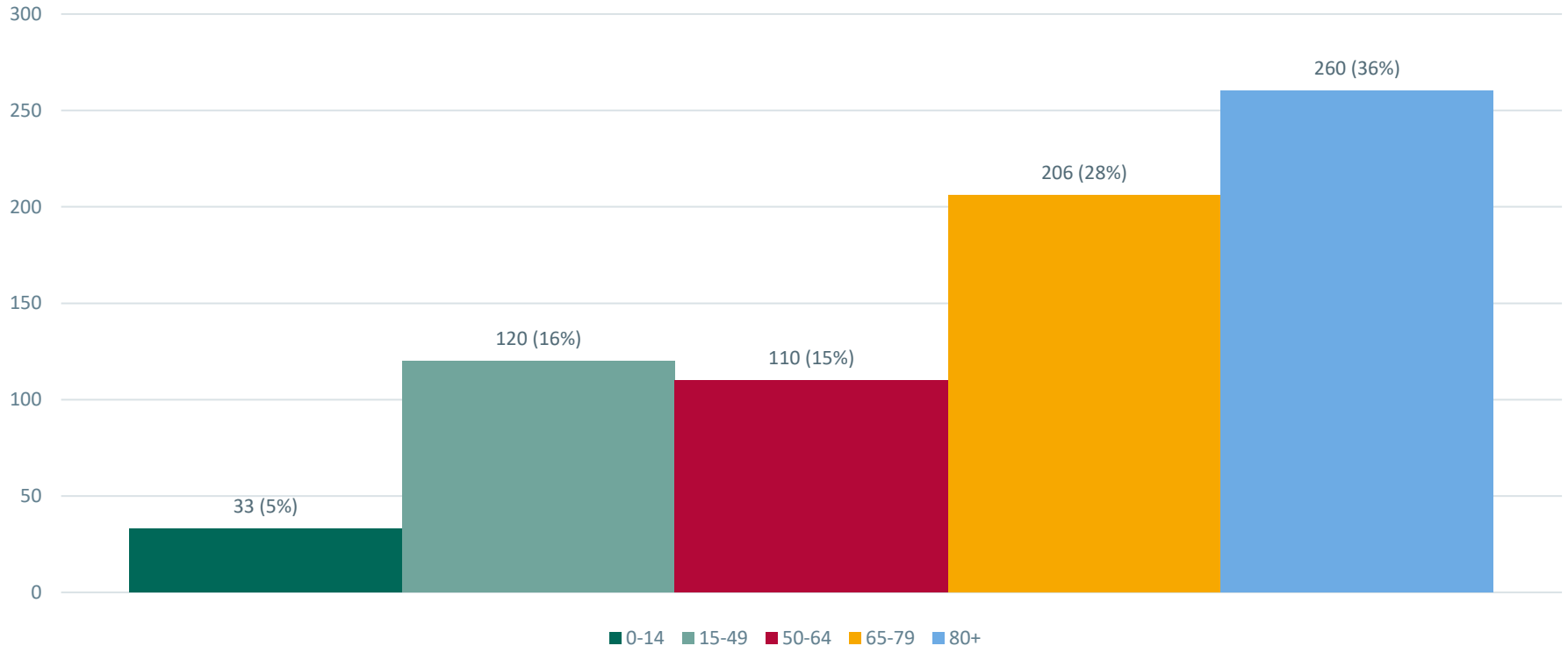


The highest number of COVID-19 patients discharged from ICU during the period was **14** on the 14th of January.

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

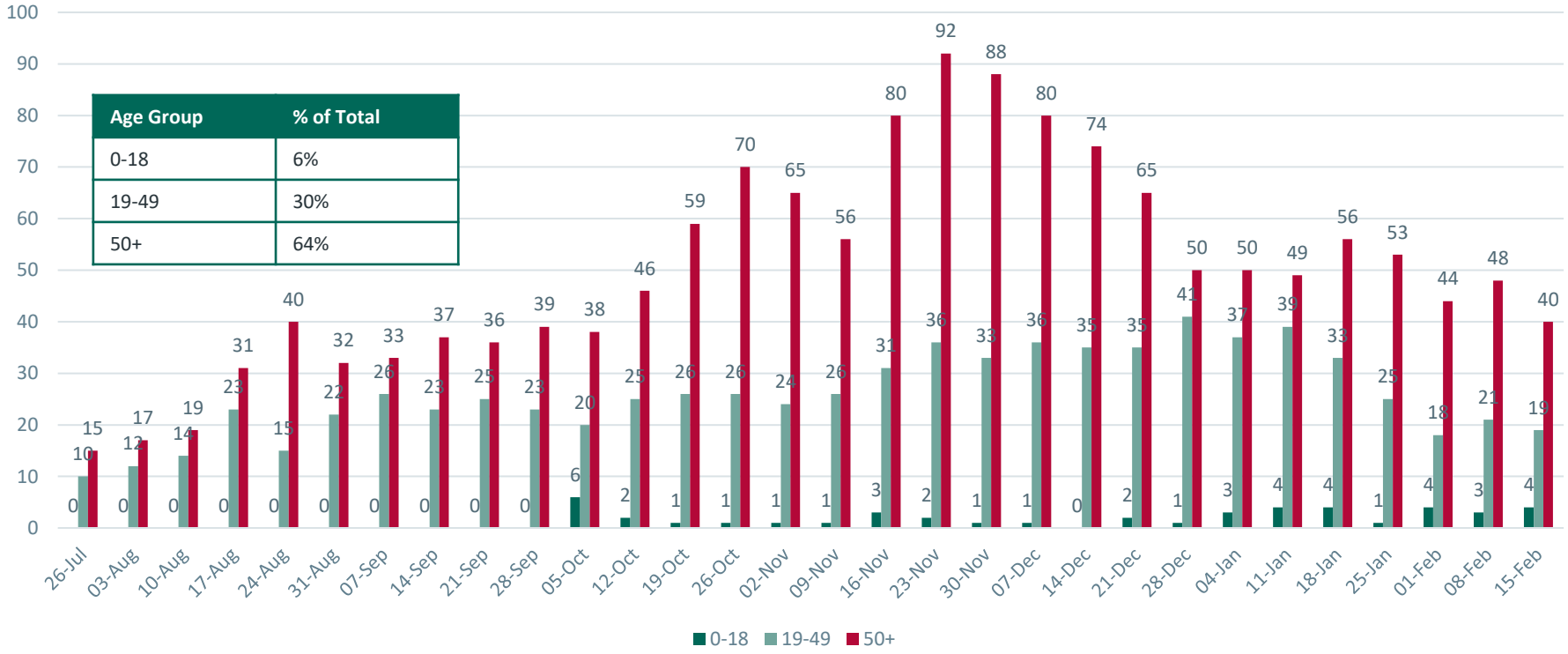
Age Profile of Hospitalisations (General and ICU)

Age Profile of Hospitalised COVID-19 Cases as of 15th February 2022



Age Profile of COVID-19 Patients in ICU

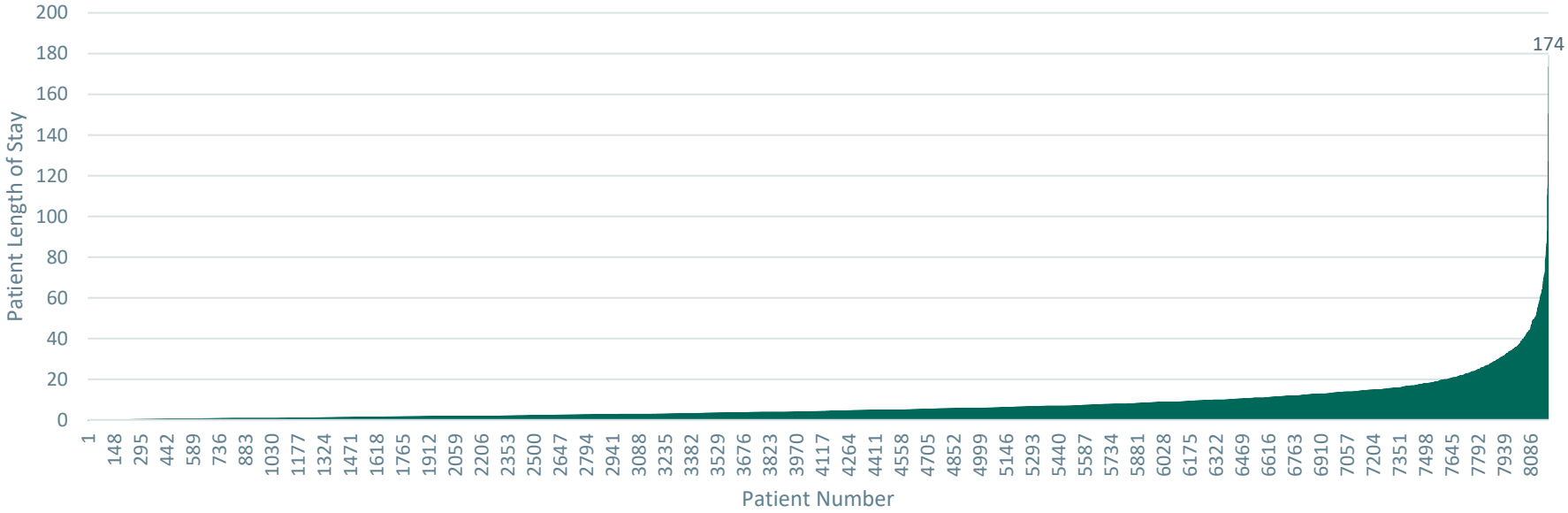
Age Group	% of Total
0-18	6%
19-49	30%
50+	64%



Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

Hospital Length of Stay (inc ICU)

COVID-19 Patient Length of Stay



- Each bar on the graph represents a COVID-19 patient and their associated length of stay (8,189 patients who were discharged between 24th July to 15th February, their mean LOS was **7** days, with an average patient age of **52** years old).
- The age range of those discharged was 0 to 102 years.
- Of those discharged, all patients were discharged from wards.

Average Length of Stay for COVID-19 cases in ICU/ Patients Currently in ICU – 15th February 2022

31

Days

Mean Length of Stay

1-111

Days

ICU Length of Stay Range

18

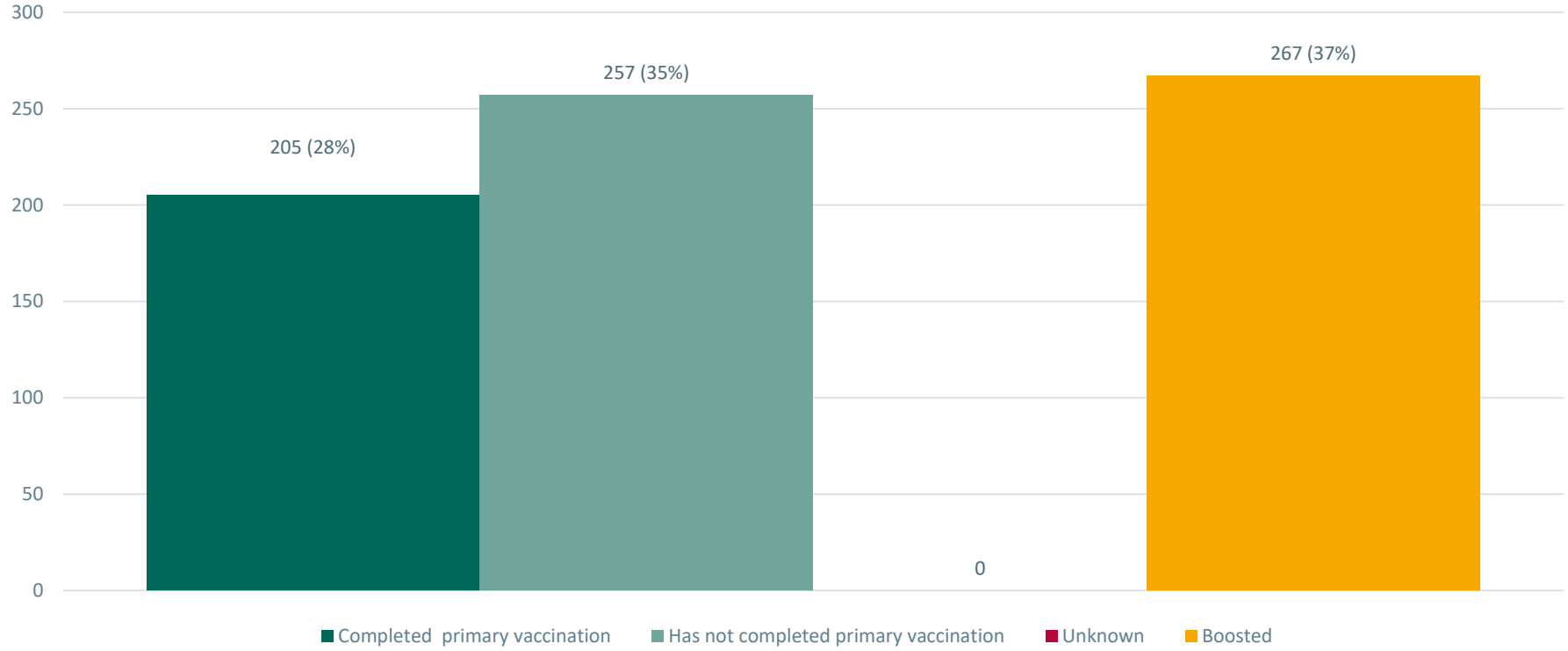
Days

Median Length of Stay

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

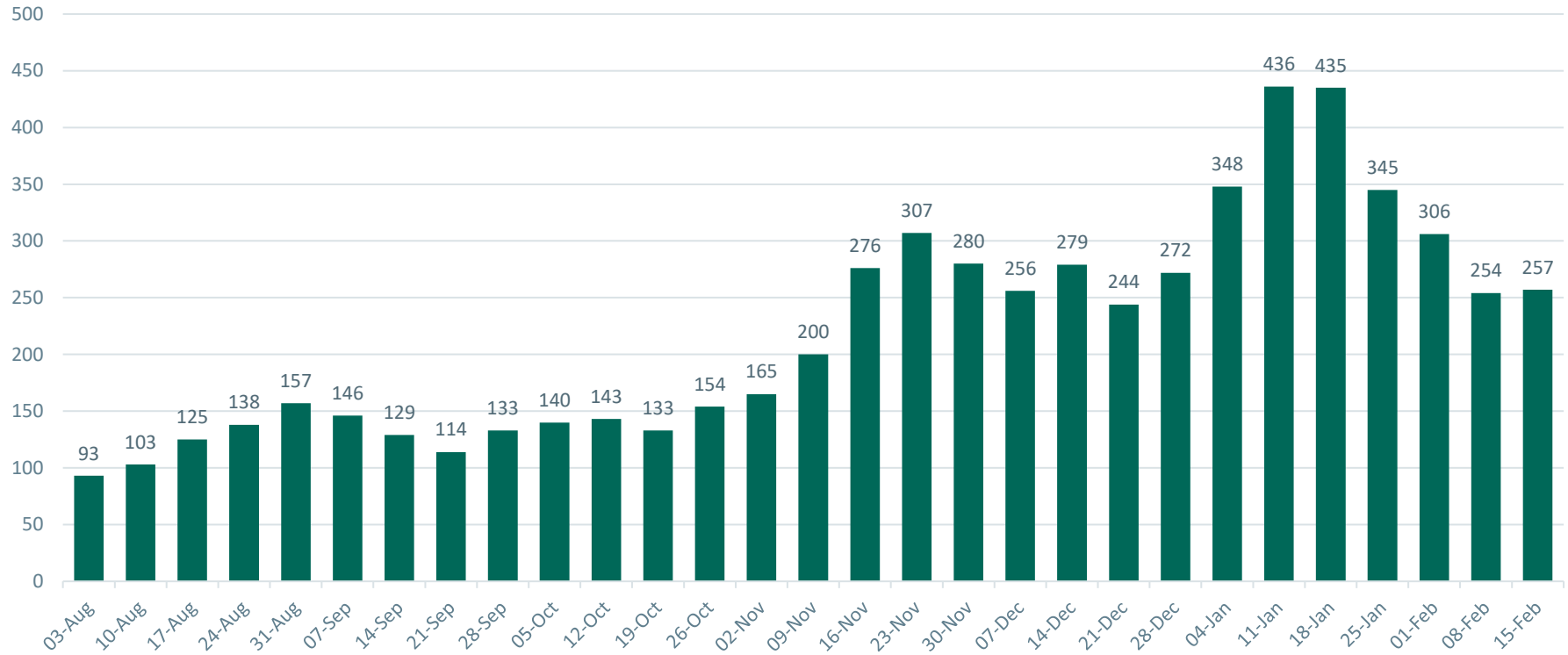
Completed Primary Vaccination vs Non-Vaccinated

Vaccination Status of Hospitalised COVID-19 Patients as of 15th February 2022

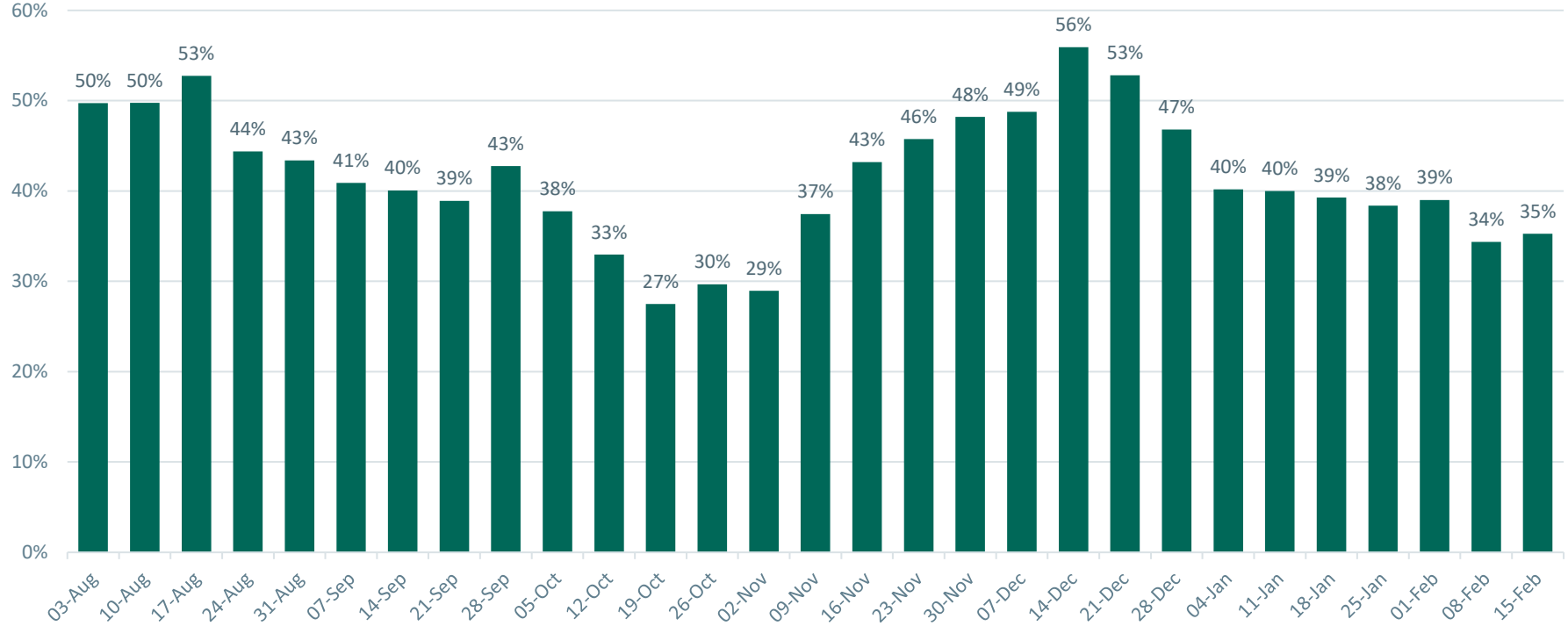


Note – Completed Primary Vaccination is defined as those who has received their second dose of vaccine more than 14 days ago

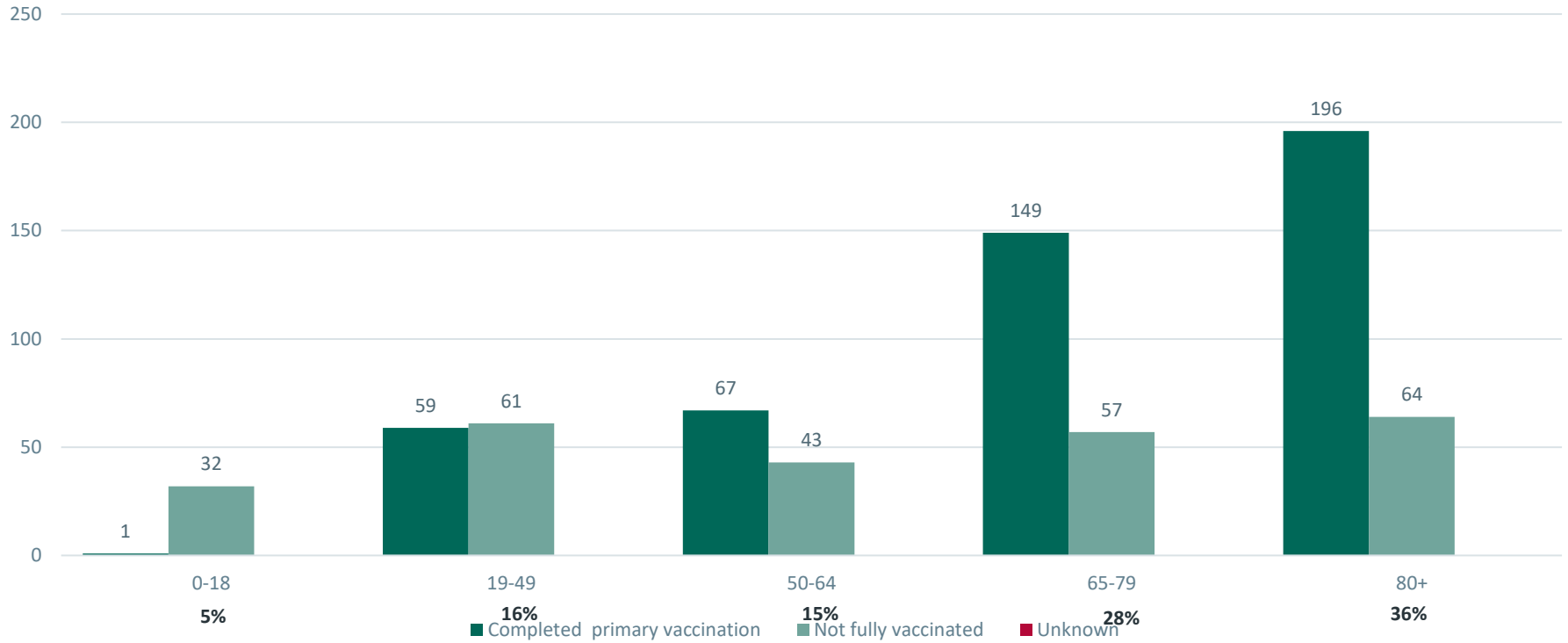
Number of Non-Vaccinated Hospitalised COVID-19 Patients



Non-Vaccinated Hospitalised COVID-19 Patients (% of Total Hospitalised COVID-19 Patients)



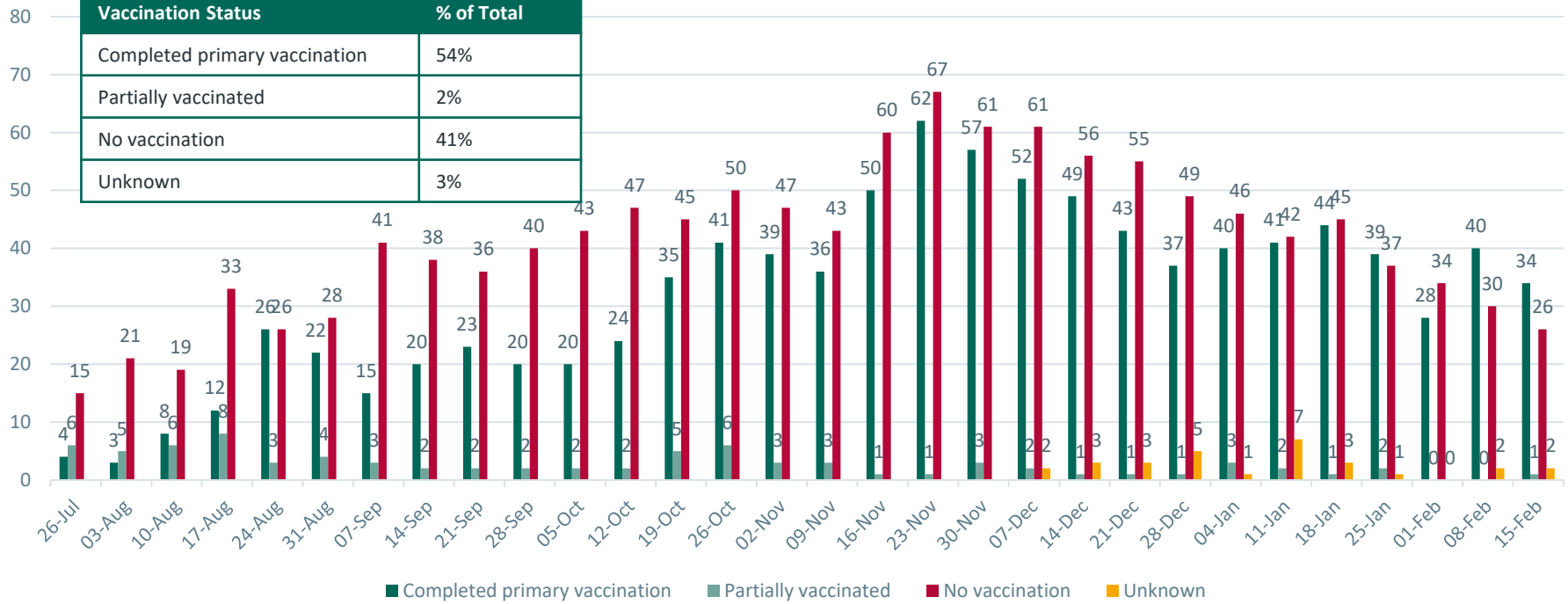
Age Breakdown by Vaccination Status as of 15th February 2022



Note – Completed Primary Vaccination is defined as those who has received their second dose of vaccine more than 14 days ago

Vaccination Status of COVID-19 Patients in ICU

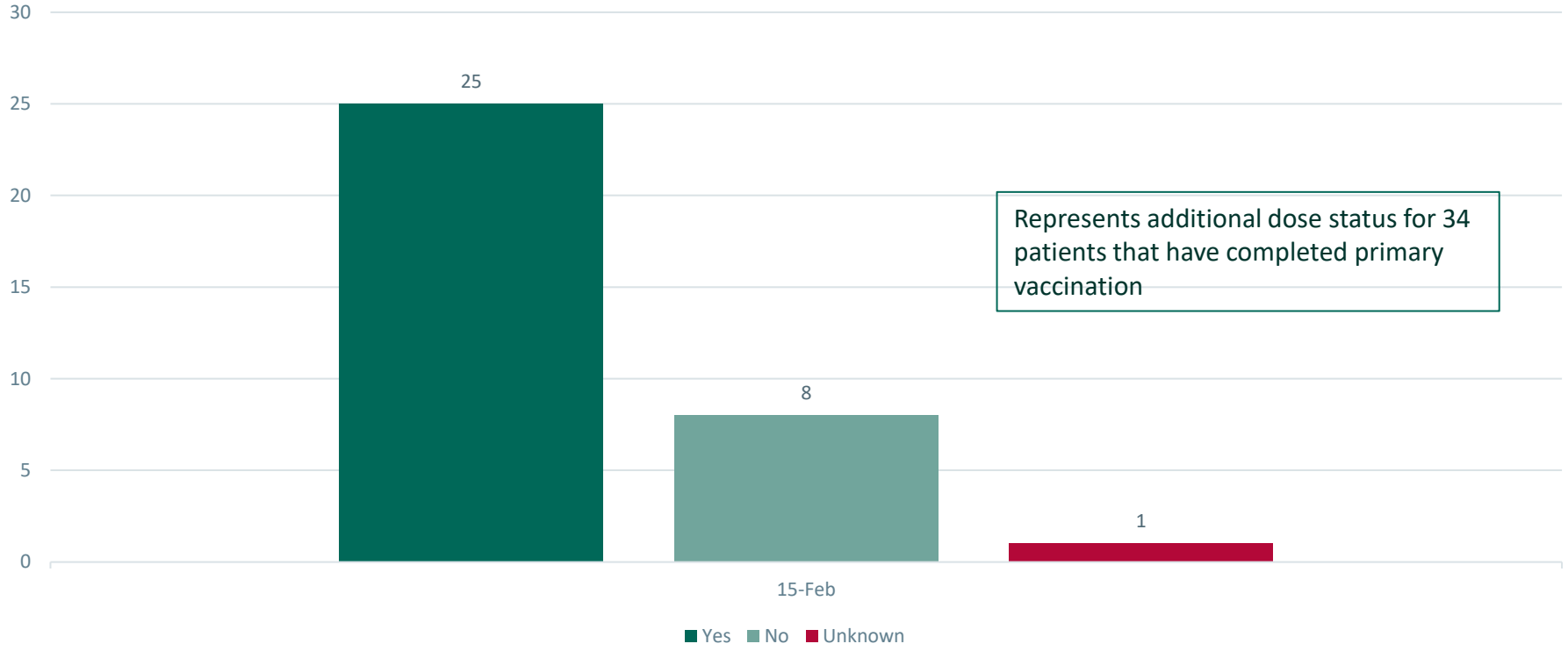
Vaccination Status	% of Total
Completed primary vaccination	54%
Partially vaccinated	2%
No vaccination	41%
Unknown	3%



Note – Completed primary vaccination is defined as those who has received their second dose of vaccine more than 14 days ago

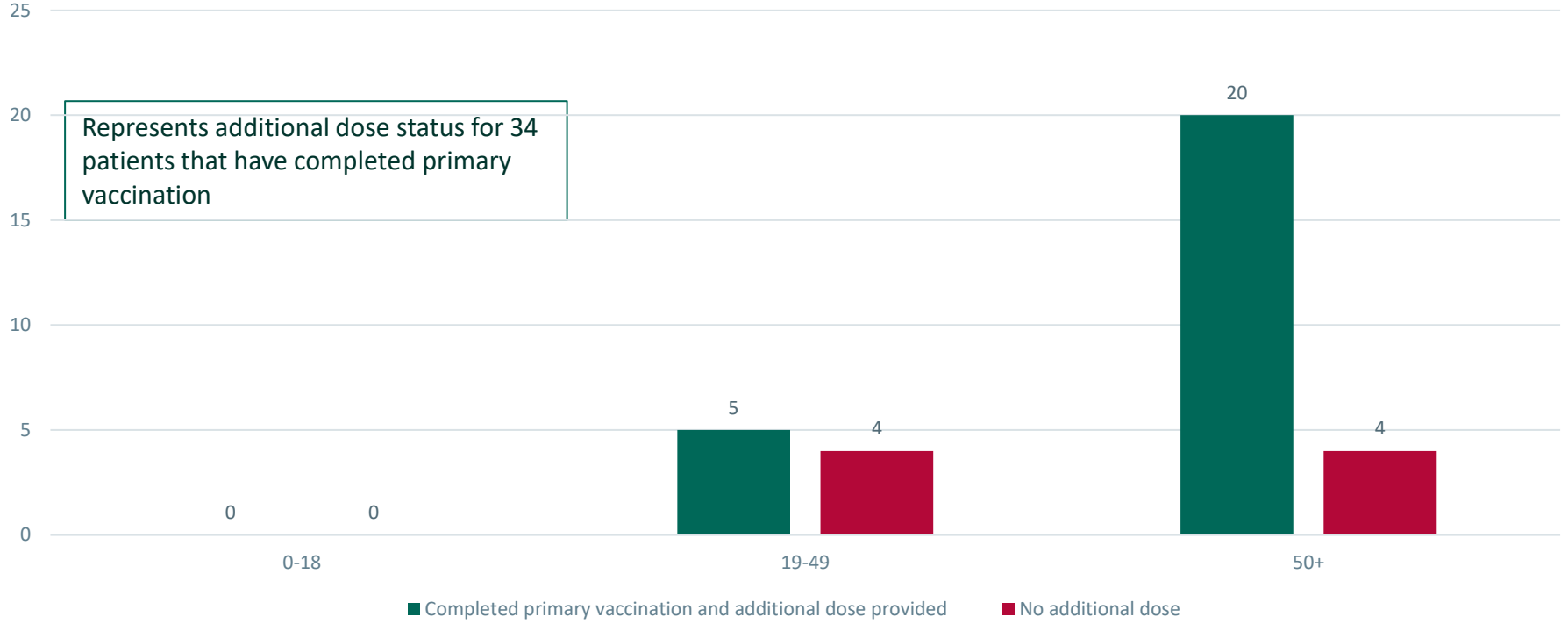
Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

Additional Dose Status of COVID-19 Patients in ICU as of 15th February 2022



Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

Additional dose Status of COVID-19 Patients in ICU by Age Profile as of 15th February 2022



**Age profile not available for patient with Unknown booster status*

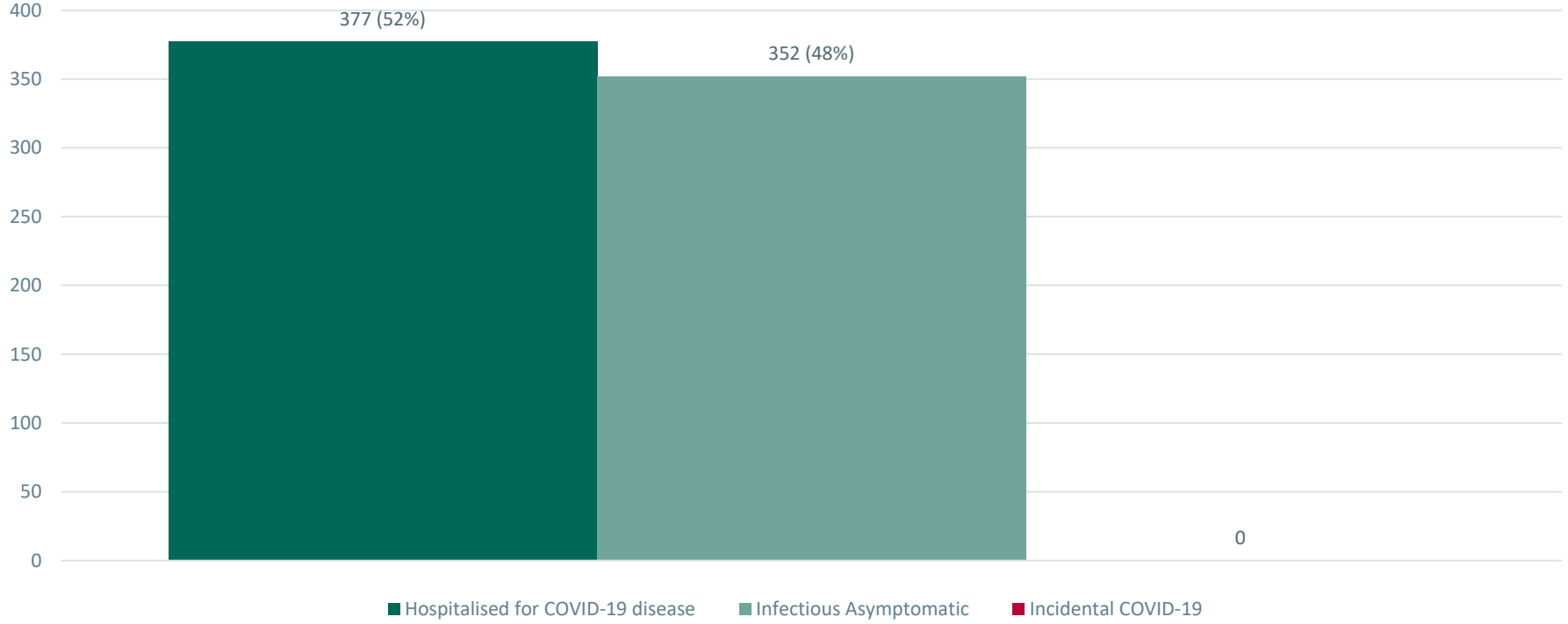
Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))

Profile of COVID-19 Patients

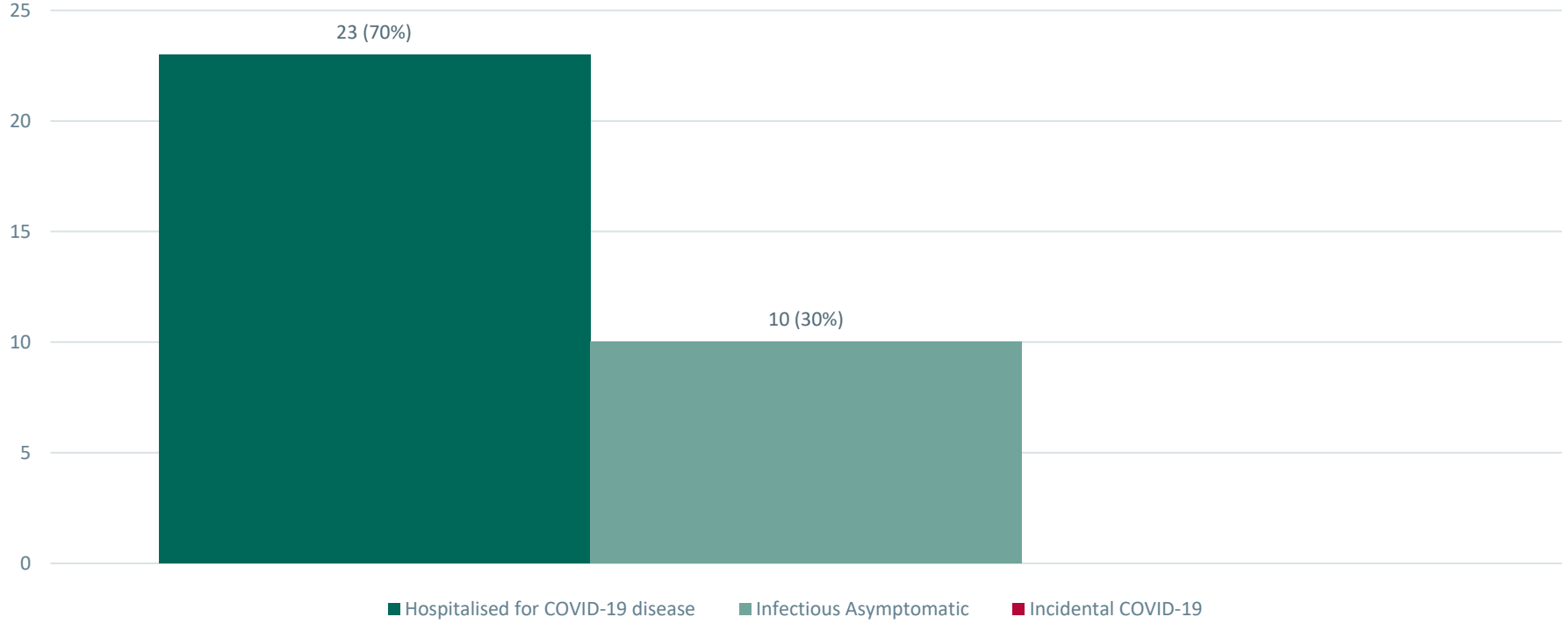
COVID-19 Category Description

Category	Description
1. Hospitalised for COVID-19 Disease	A person admitted to an acute hospital for management of a condition that is attributed to a diagnosis of COVID-19 made before admission or about the time of admission **OR** a person admitted to an acute hospital for a non-COVID-19 related condition but who is now in hospital because of a condition related to a diagnosis of COVID-19 made after hospitalisation (this will include hospital acquired COVID-19 and community acquired COVID-19 manifesting after admission
2. Asymptomatic Infectious	A person who is in an acute hospital for management of a condition that is not attributed to COVID-19 but who has infectious COVID-19 (community acquired or hospital acquired) requiring transmission based infection prevention and control precautions during their admission)
3. Incidental COVID-19 (Asymptomatic Not Infectious)	A person in an acute hospital for management of a condition that is not attributed to COVID-19 AND who meets the case definition for COVID-19 but is assessed as COVID-19 asymptomatic and non-infectious and therefore not requiring transmission based precautions (community acquired case or hospital acquired case)

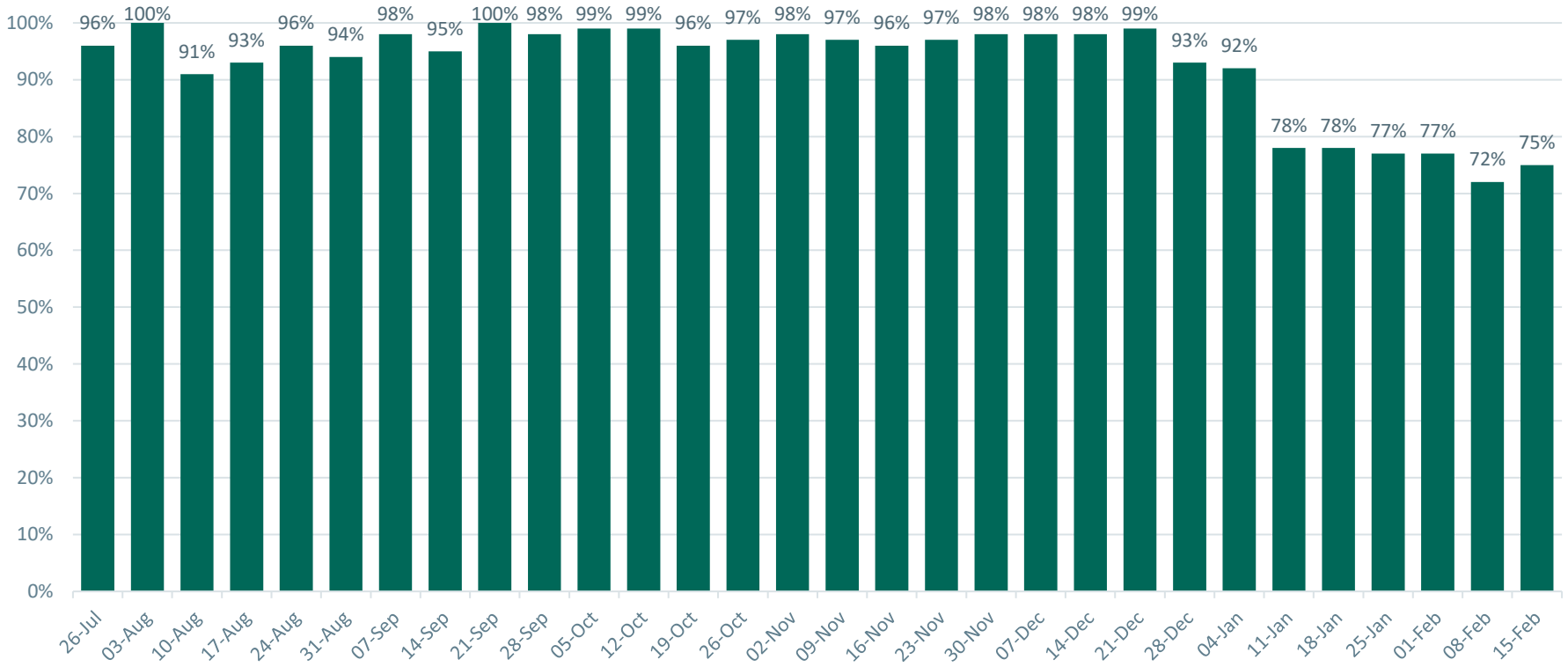
Breakdown of Hospitalised Cases by COVID-19 Category Nationally as of 15th February 2022



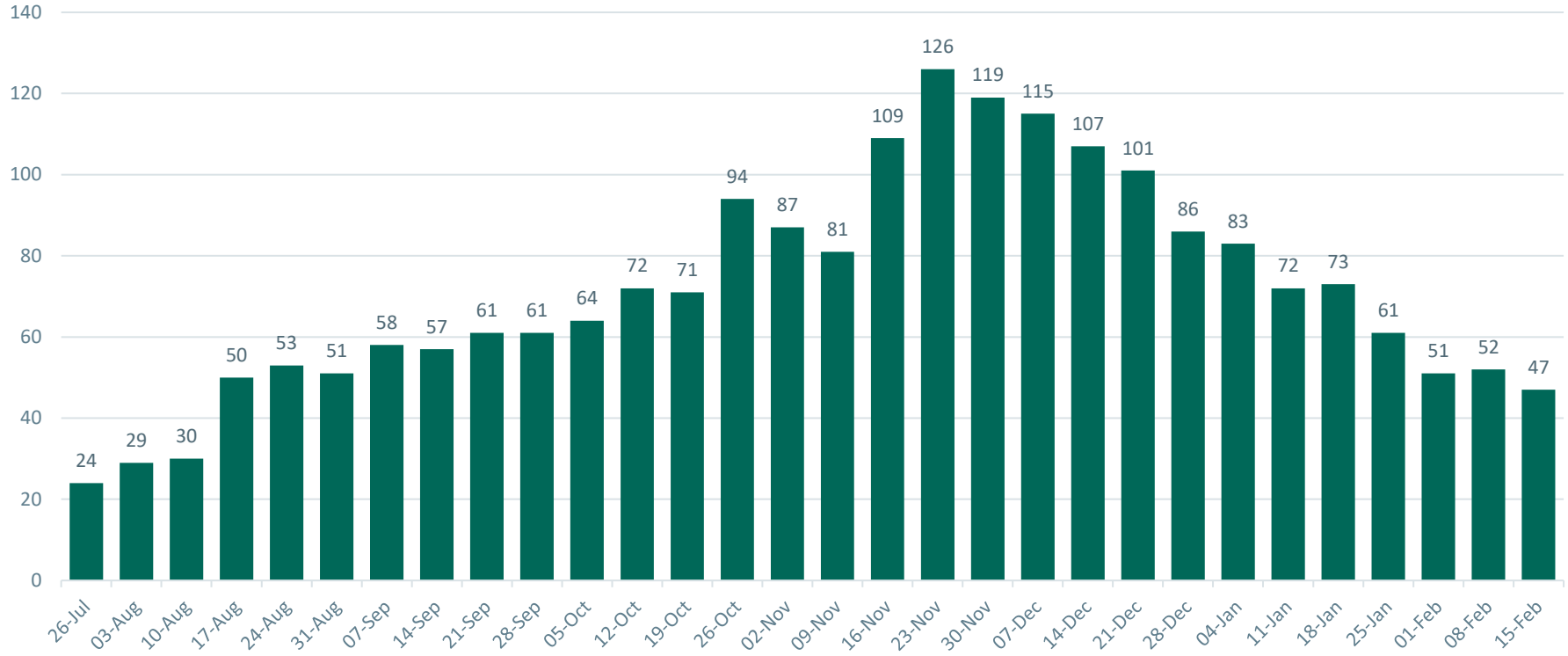
Breakdown of Hospitalised Cases by COVID-19 Category Nationally (0-14 Years Cohort) as of 15th February 2022



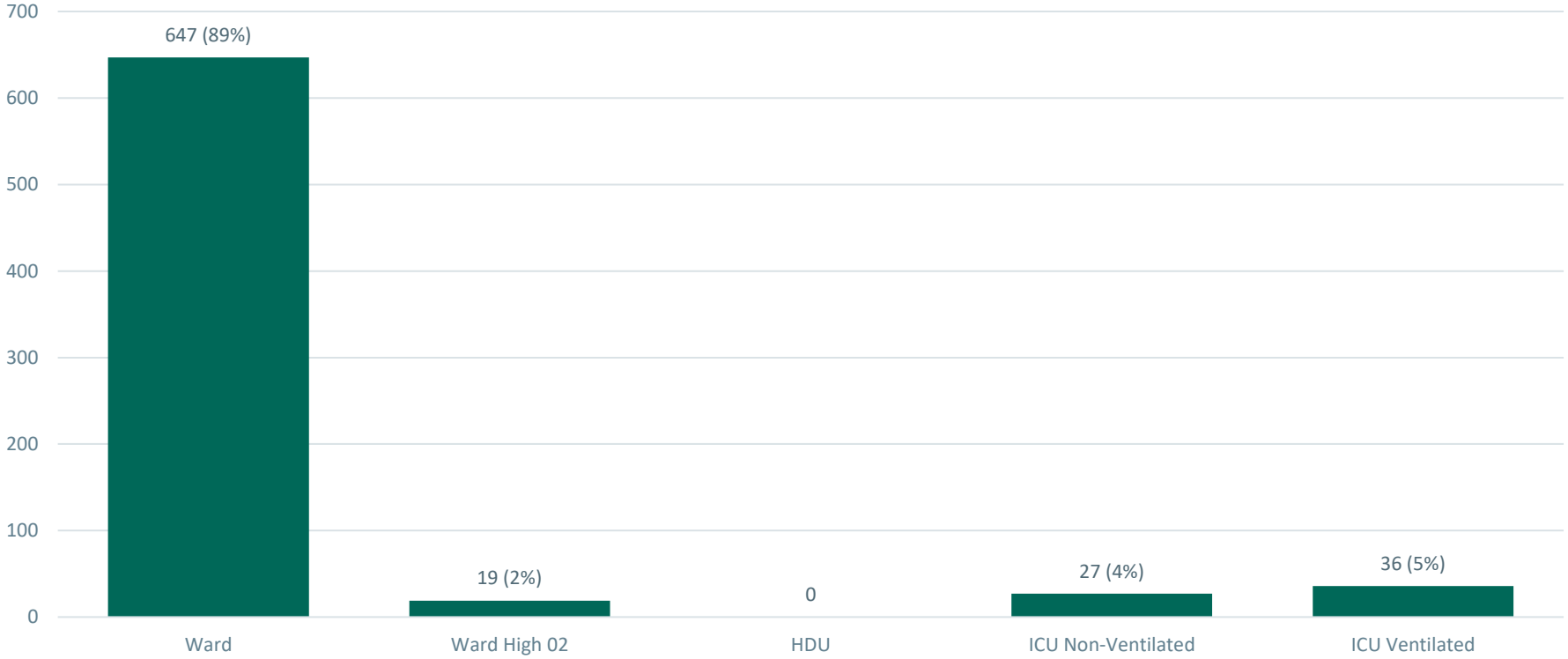
Primary reason for admission to ICU was COVID-19 (% of total COVID-19 cases)



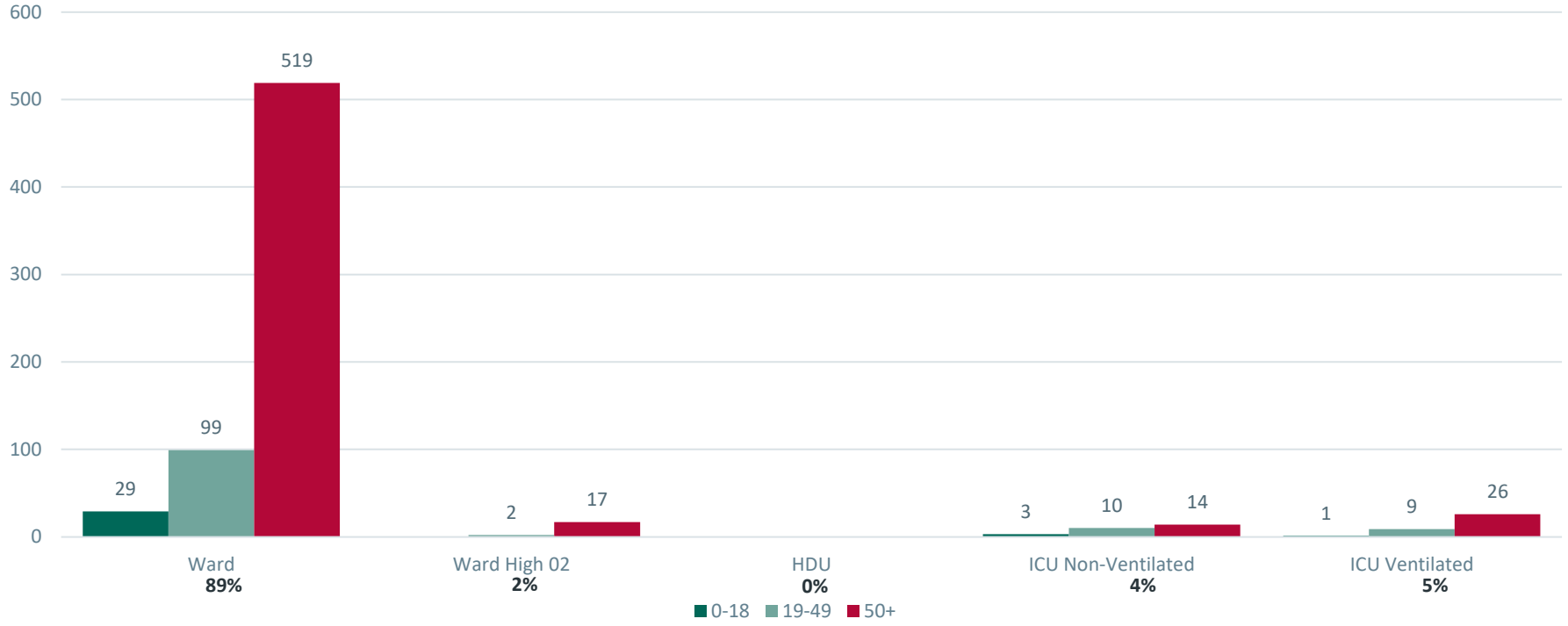
Primary reason for admission to ICU was COVID-19



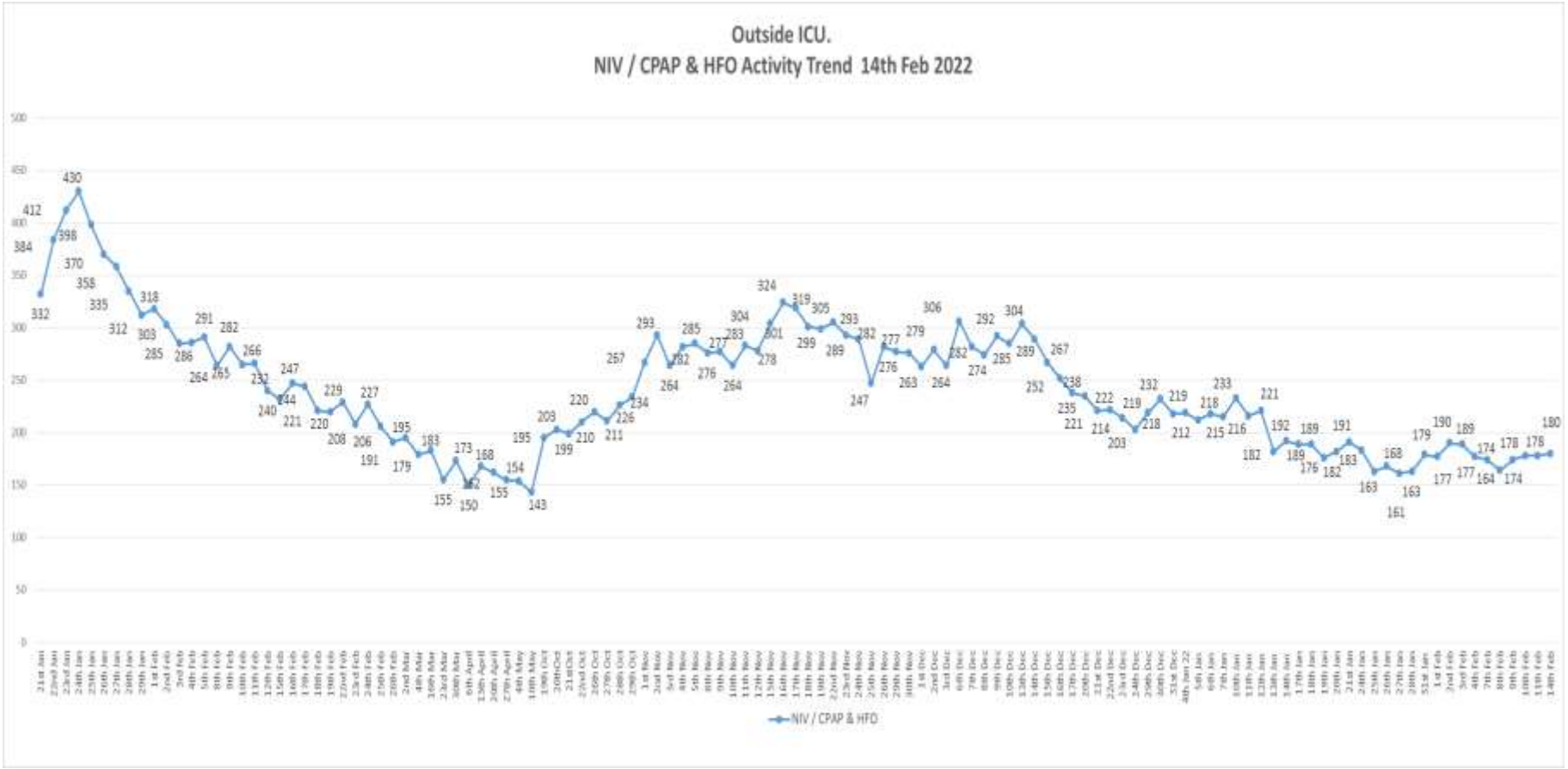
Breakdown of Hospitalised COVID-19 Patients by Location as of 15th February 2022

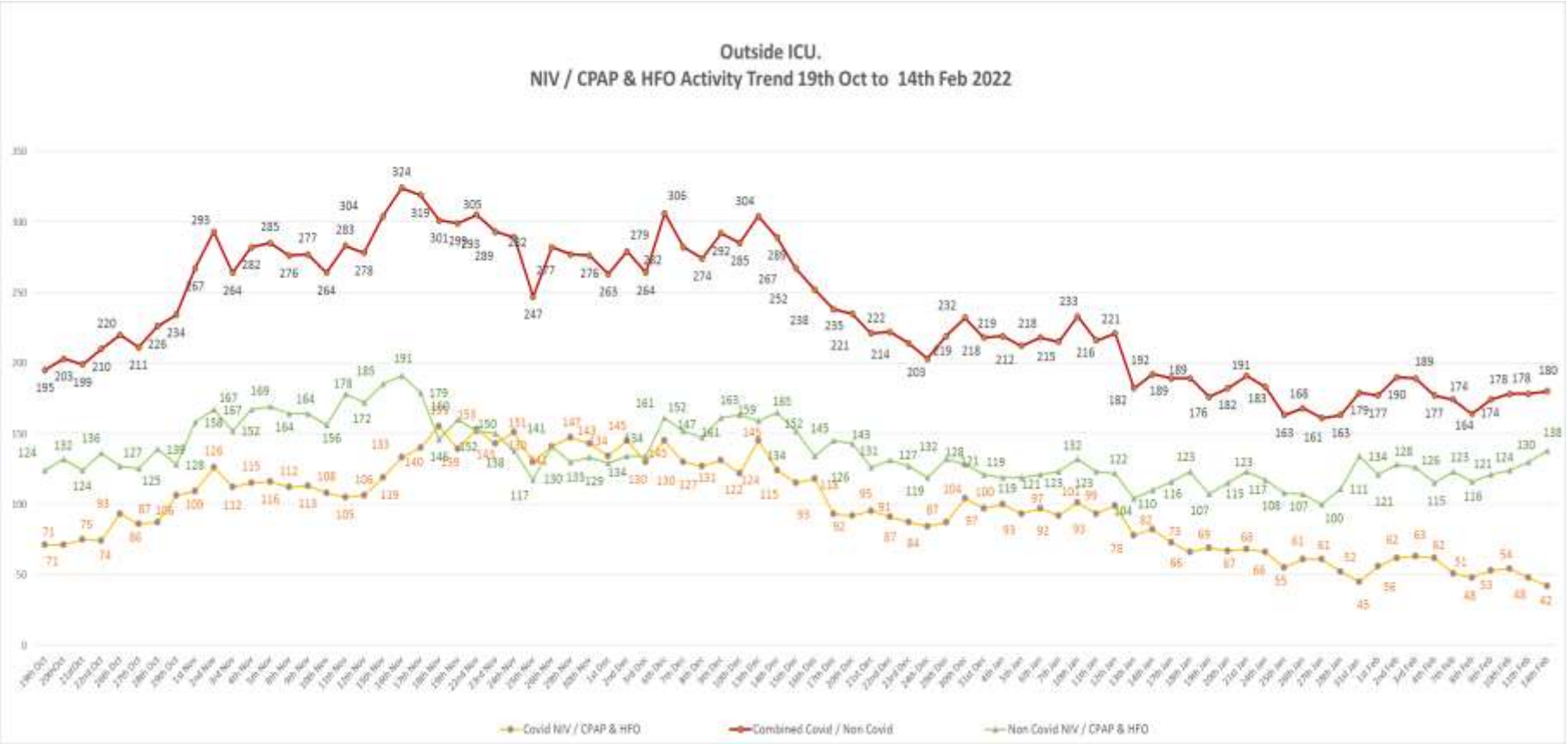


Breakdown of Hospitalised COVID-19 Patients by Location and by Age Category as of 15th February 2022



NIV HFO Report to 14th February 2022


Outside ICU.
NIV / CPAP & HFO Activity Trend 14th Feb 2022
NIV / CPAP & HFO


Outside ICU.
NIV / CPAP & HFO Activity Trend 19th Oct to 14th Feb 2022
Covid NIV / CPAP & HFO
Combined Covid / Non Covid
Non Covid NIV / CPAP & HFO

Appendix

Additional information relating to booster status of patients admitted to hospital and intensive care

Assumptions

Booster doses are assumed to refer to any dose of vaccine given after the primary course of either a single dose vaccine or two dose vaccine course.
Those who have had Covid within the last 3 months are identified, as this group was specifically excluded from receiving booster doses.
CCT is a sufficient basis and of sufficient data quality to identify those admitted to hospital and ICU.
The matching process uses PPS number where it is available to link the admission records with vaccination data. Where this is not available cleaned first name, last name, gender and date of birth are used for this link.

Data sources

The source of information on admissions and discharges in hospitals was [dbo].[Stage_Covid19_CRM_i2_dpms_admissiondischarge]. Using the logic of an existing report on hospital admissions (sp_Cabinet_Report), the admissions records were linked to CRM contact and CRM Hospital tables, namely;

[dbo].[Stage_Covid19_CRM_i2_contact]
[dbo].[stage_covid19_crm_i2_dpms_hospital]

This provided patient level data uniquely identifying patients and their hospital status.
The sources of vaccination data were the following:

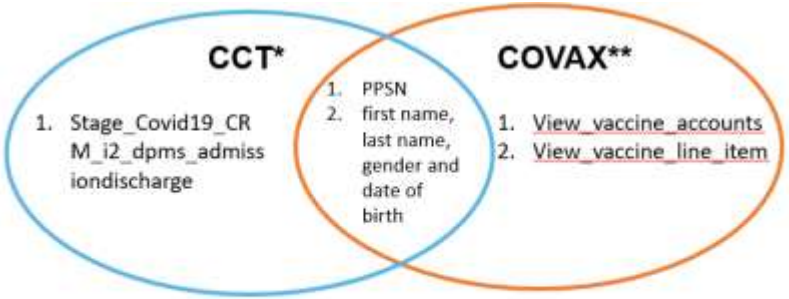
VIEW_VACCINE_ACCOUNTS
stage_covid19_vaccine_sf_account
VIEW_VACCINE_LINE_ITEM

These views in the IIS datalake are populated with data directly from CoVax. Vaccine records uniquely identify vaccinated people. The records allow the identification those doses classified as ‘Immunocompromised Dose' or 'Additional Dose', as part of either primary course or second courses.
Note however that the CoVax data does not have a unique key that links directly to CCT data. The link between the two data sets, allowing patients to be uniquely associated with vaccination records is based first name, last name, date of birth and gender of the persons, as well as their PPSN numbers where available. This matching process does not provide a one-one mapping.
Vaccination and admission information were linked on PPSN where available and a composite of first name, last name, gender and date of birth where this is not available.

Additional information relating to booster status of patients admitted to hospital and intensive care cont.

Linking of Data

There is a two step linking process with this report. Firstly based on PPSN and secondly based on first name, last name, gender and date of birth.



* CCT Admission / Discharge information is patient level records related to those admitted/discharged with COVID
** CoVax is the system of record all administered COVID vaccinations in Ireland.

There is no patient level identifier consistent across CCT and CoVax so name/dob is used to match

Fields

Field	Description	Note
DayDate	Date of Report	
Hospital Name	Name of Site	
dpms_admissiontype	Location of initial admission	This is the location where the patient was first admitted to at that site. Not to be confused with dpms_whereisthispatientcurrentlybased
dpms_whereisthispatientcurrentlybased	Location of current admission	This is the current location of the patient • Ward - General • Ward - Advance respiratory (O2) Support • ICU/HDU
Vaccination_status_derived	Primary Course Vaccination Status	• Fully vaccinated • Partially vaccinated • Not vaccinated • (blank) – Status unknown
Booster Dose Derived	Booster Status	• Immunocompromised Dose - Primary course delivered in addition to an immunocompromised dose • No third dose record • Additional Dose – Primary course delivered in addition to a booster dose
dpms_gender	Gender	
Age_range	Age Range	As of 4/JAN/22 very few 0-11 year olds have been vaccinated. As such they will not have a record in COVAX and will not match
Admit Number	Number Admitted	
Discharge Number	Number Discharged	
Match Status	Successful Match against this record	

Additional information relating to booster status of patients admitted to hospital and intensive care cont.

Refresh frequency of data sources
CCT tables are refreshed daily at 00:30,07:30,09:30,12:30,17:30 & 21:30
CoVax tables are refreshed 3 times daily at 00:00, 12:00 & 18:00

Sources of error
Some sources of error in the data, include:
Patient details captured in CCT data may have different names compared to the data they used for registering for vaccination.

- Diminutive names.
- Names with spelling variations.
- Irish names.

The date of birth field in vaccination data has data quality issues.
CCT admission and discharge data may not completely cover all hospital admissions.
PPSN numbers may not be unique to a person within the CoVax data.
Failure to match between the data sources can occur because of some of these errors, so that the number of vaccinated people is over estimated where no match occurs. Or it is possible that there is aliasing due to name, gender and dates of birth matching.