**SQL Queries**

1. **Who has received the Janssen vaccine (which only requires a single dose)?**

SELECT \*

FROM Patient\_Data NATURAL JOIN Vaccine\_Type NATURAL JOIN Vaccine\_Administration

WHERE Vaccine\_ID = '2' AND Date\_Completed IS NOT NULL

1. **Who has not received any vaccination doses, and needs to be vaccinated (i.e. exclude those who have provided proof of overseas vaccination)**

SELECT \*

FROM Patient\_Data NATURAL JOIN Vaccine\_Type NATURAL JOIN Vaccine\_Administration

WHERE date\_started IS NULL AND Vaccine\_ID IS NOT '3'

1. **Who has received both doses of the Comirnaty vaccine?**

SELECT \*

FROM Patient\_Data NATURAL JOIN Vaccine\_Type NATURAL JOIN Vaccine\_Administration

WHERE Vaccine\_ID = 1 AND Date\_Started IS NOT NULL AND Date\_Completed IS NOT NULL

1. **Create a list of all people who have received at least one dose of the Comirnaty vaccine, and show for each person how many doses they have received. Order by the number of doses descending, i.e. the first few rows in the table will be the people who have had the highest number of doses of the vaccine.**

SELECT\*,

CASE

WHEN Date\_Completed IS NOT Null THEN '2'

WHEN Date\_Started is not NULL THEN '1'

ELSE '0'

END AS 'total\_dosages'

FROM Patient\_Data NATURAL join Vaccine\_Administration

WHERE Vaccine\_ID = '1' AND total\_dosages >= '1'

ORDER BY total\_dosages DESC;

1. **Who has received doses of more than one type of vaccine?**

SELECT First\_Name,Last\_Name, NHI\_Number, COUNT(\*) AS 'Multiple dosage'

FROM Patient\_Data NATURAL JOIN Vaccine\_Administration

GROUP BY NHI\_Number

HAVING COUNT(\*) > 1

1. **Who has received only one dose of the Comirnaty vaccine, and is now due to receive their second dose (i.e. the first dose was at least 21 days ago)?**

SELECT\*, date(date\_started, '21 days') as 'Due\_date'

FROM Patient\_Data NATURAL JOIN Vaccine\_Type NATURAL JOIN Vaccine\_Administration

WHERE Vaccine\_ID = '1' AND Date\_Completed IS NULL AND Date\_Started IS NOT NULL AND Due\_date <=date('now')

1. **BONUS MARKS: who is completely vaccinated (using any vaccine), i.e. they have the full number of doses for that vaccine OR have a VacPass**

**• NOTE: for full marks this should work even if new vaccines are added to the database, i.e. the query cannot be specific for Janssen and Comirnaty**

SELECT \*

FROM Patient\_Data NATURAL JOIN Vaccine\_Type NATURAL JOIN Vaccine\_Administration

WHERE Date\_Completed IS NOT NULL