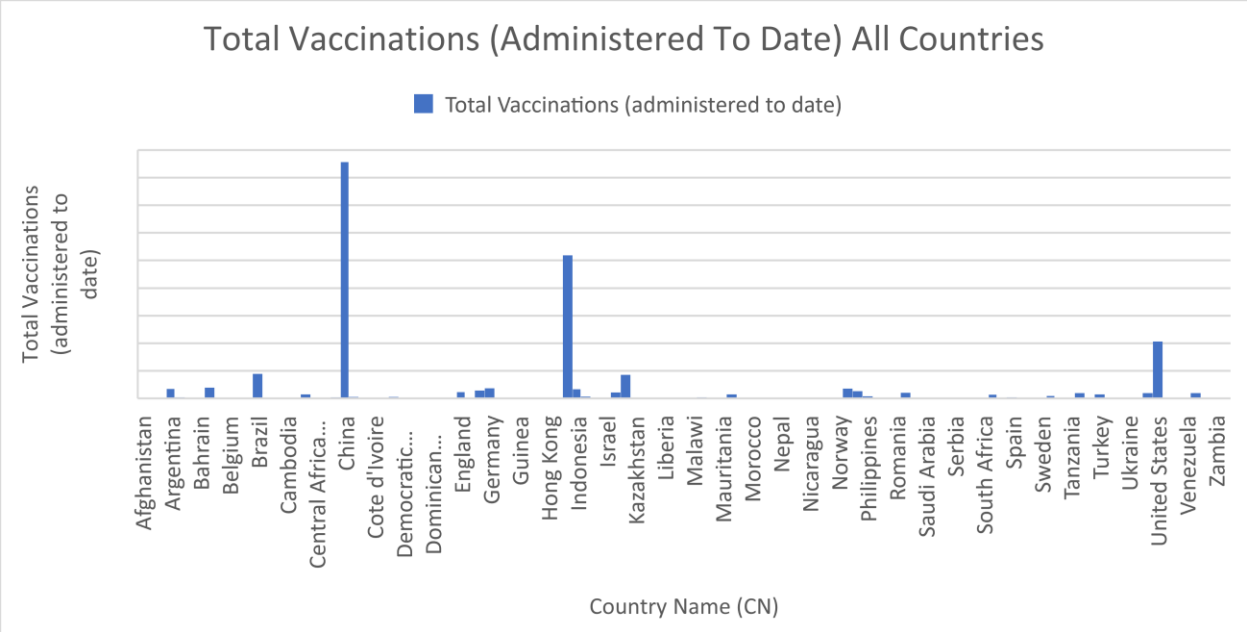
PART D

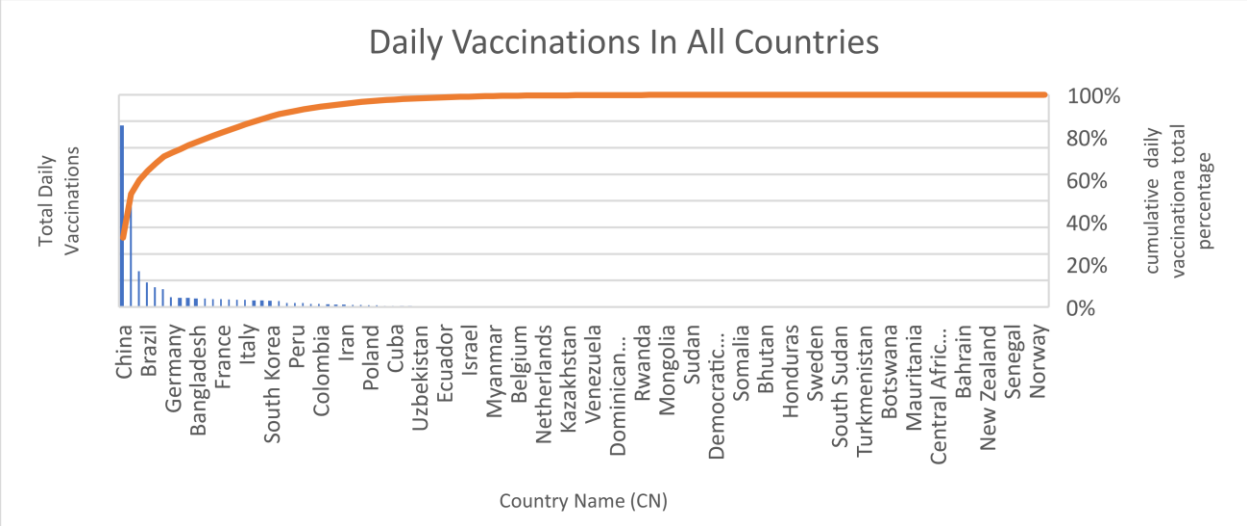
TASK D.1

```
------D.1---------------------
SELECT location AS [Country Name (CN)],
       total_vaccinations AS [Total Vaccinations (administered to date)],
       daily_vaccinations AS [Daily Vaccinations],
       date AS Date
FROM vaccination_stat
WHERE daily_vaccinations > avg_of_daily_vaccination_each_country AND
       total_vaccinations != 0;
------------------------------
```

Total rows loaded: 16861

	Country Name (CN)	Total Vaccinations (administered to date)	Daily Vaccinations	Date
1	Afghanistan	7885045	190328	2022-07-19
2	Afghanistan	9822860	162023	2022-08-07
3	Afghanistan	11216694	174229	2022-08-15
4	Afghanistan	12788310	7055	2023-02-14
5	Afghanistan	13603457	119221	2023-02-19
6	Afghanistan	13910490	113732	2023-02-23
7	Afghanistan	14743912	162922	2023-02-26
8	Afghanistan	15093798	190975	2023-02-28
9	Afghanistan	15966423	174644	2023-03-05
10	Afghanistan	16248588	40309	2023-03-12



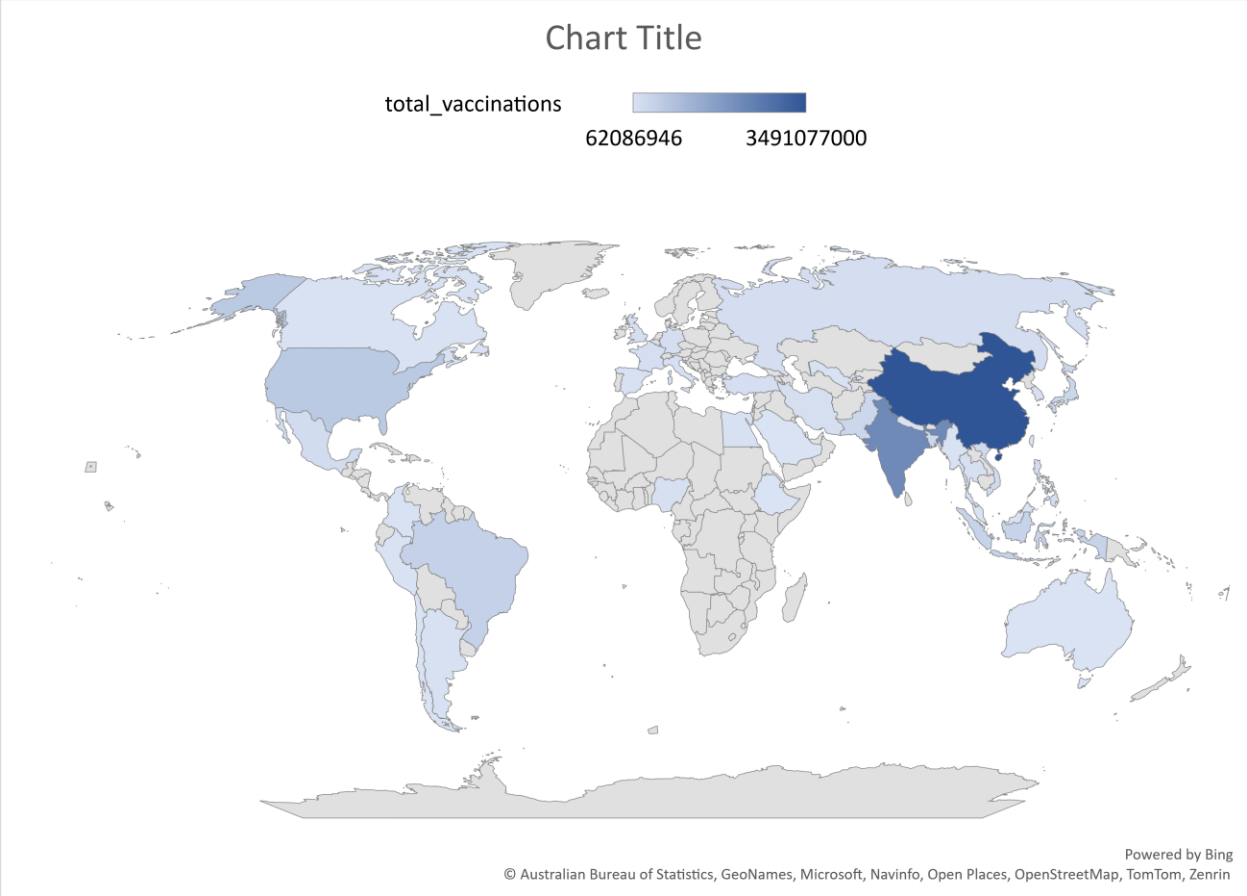


TASK D.2

```
------------------D.2-------------------------
SELECT location,total_vaccinations
FROM (
        SELECT location ,total_vaccinations,date
        FROM vaccination_stat
        WHERE total_vaccinations!=0
        ORDER BY date DESC)
WHERE total_vaccinations > (WITH TotalVaccinationsLocation AS (
                                                    SELECT location,total_vaccinations
                                                    FROM (
                                                            SELECT location ,total_vaccinations,date
                                                            FROM vaccination_stat
                                                            WHERE total_vaccinations!=0
                                                            ORDER BY date DESC)
                                                    GROUP BY location)
                            SELECT AVG(total_vaccinations) AVERAGE
                            FROM TotalVaccinationsLocation)
GROUP BY location;
-------------------------------------------
```

Total rows loaded: 37

	location	total_vaccinations
1	Argentina	116435233
2	Australia	65492360
3	Bangladesh	361674629
4	Brazil	486436436
5	Canada	96956502
6	Chile	62688847
7	China	3491077000
8	Colombia	90506612
9	Egypt	112673535
10	England	149398324

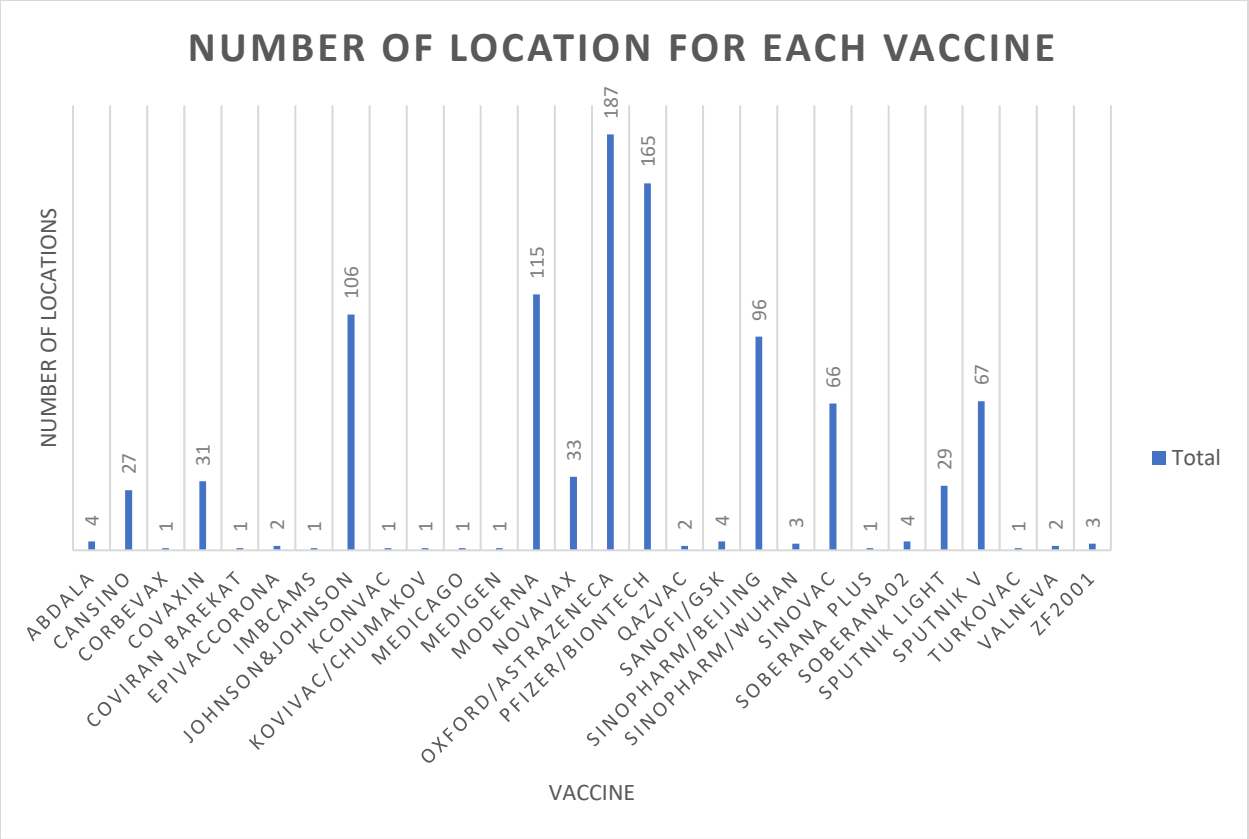


TASK D.3

```
------D.3-------------
SELECT location, vaccines
FROM vaccinations_by_location
ORDER BY location;
----------------------------
```

Total rows loaded: 955

	location	vaccines
1	Afghanistan	CanSino
2	Afghanistan	Covaxin
3	Afghanistan	Johnson&Johnson
4	Afghanistan	Moderna
5	Afghanistan	Oxford/AstraZeneca
6	Afghanistan	Pfizer/BioNTech
7	Afghanistan	Sinopharm/Beijing
8	Afghanistan	Sinovac
9	Afghanistan	Sputnik Light
10	Afghanistan	Sputnik V



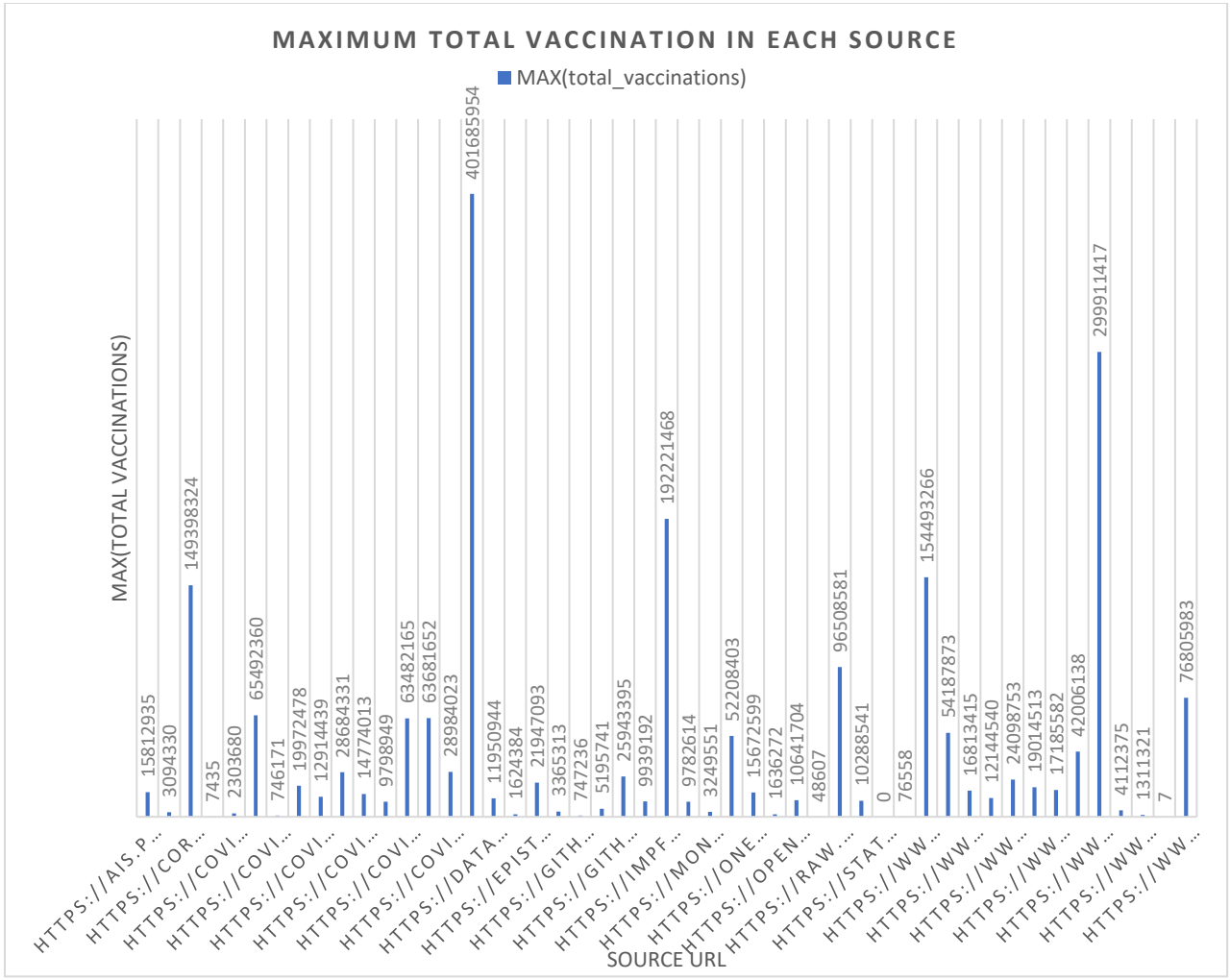
TASK D.4

```
----------------------------D.4-----------------
SELECT location,
       source_url,
       MAX(total_vaccinations)
FROM vaccinations_by_vaccine
WHERE total_vaccinations is NOT NULL AND total_vaccinations !=""
GROUP BY location,
          source_url
ORDER BY source_url;

------------------------------------------------------
```

Total rows loaded: 49

	location	source_url	MAX(total_vaccinations)
1	Ecuador	https://ais.paho.org/imm/IM_DosisAdmin-Vacunacion.asp	15812935
2	Bulgaria	https://coronavirus.bg/bg/statistika	3094330
3	England	https://coronavirus.data.gov.uk/details/vaccinations	149398324
4	Norway	https://coronavirus.data.gov.uk/details/vaccinations	7435
5	Slovenia	https://covid-19.sledilnik.org/sl/stats	2303680
6	Australia	https://covid19.who.int/	65492360
7	Luxembourg	https://covid19.who.int/	746171
8	Nepal	https://covid19.who.int/	19972478
9	Romania	https://covid19.who.int/	12914439
10	South Africa	https://covid19.who.int/	28684331

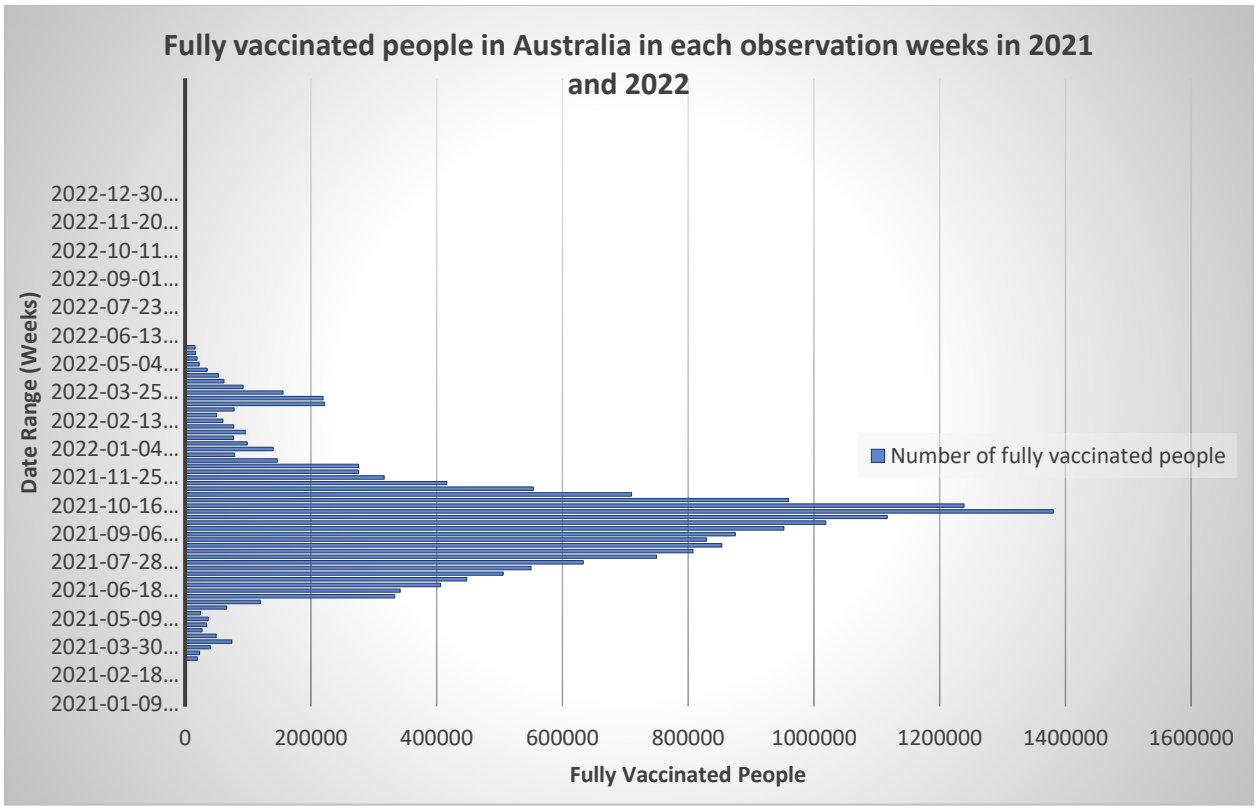


TASK D.5

```
----------------------------D.5---------------
WITH RECURSIVE dates (
    date,
    end_date
)
AS (
    VALUES (
        '2021-01-01',
        '2021-01-08'
    )
    UNION ALL
    SELECT date(date, '+8 days'),
           (CASE WHEN end_date = '2022-12-29' THEN date(end_date, '+2 days') ELSE date(end_date, '+8
days') END)
      FROM dates
     WHERE date < '2022-12-31' AND
           end_date < '2022-12-31'
)
SELECT (d.date || ' to ' || d.end_date) AS date_range,
       (CASE WHEN (
                       SELECT people_fully_vaccinated
                         FROM vaccination_stat v
                        WHERE v.location = 'Australia' AND
                              v.date = d.end_date
                   )= 0 THEN 0 ELSE (ifnull( (
                                        SELECT people_fully_vaccinated
                                          FROM vaccination_stat v
                                         WHERE v.location = 'Australia' AND
                                               v.date = d.end_date
                                    ), 0) - ifnull( (
                                                        SELECT people_fully_vaccinated
                                                          FROM vaccination_stat v
                                                         WHERE v.location = 'Australia' AND
                                                               v.date = d.date
                                                    ), 0) ) END) AS total
FROM dates d;
```

Total rows loaded: 92

	date_range	total
1	2021-01-01 to 2021-01-08	0
2	2021-01-09 to 2021-01-16	0
3	2021-01-17 to 2021-01-24	0
4	2021-01-25 to 2021-02-01	0
5	2021-02-02 to 2021-02-09	0
6	2021-02-10 to 2021-02-17	0
7	2021-02-18 to 2021-02-25	9
8	2021-02-26 to 2021-03-05	13
9	2021-03-06 to 2021-03-13	10
10	2021-03-14 to 2021-03-21	19642


Fully vaccinated people in Australia in each observation weeks in 2021 and 2022
Date Range (Weeks)
2022-12-30...
2022-11-20...
2022-10-11...
2022-09-01...
2022-07-23...
2022-06-13...
2022-05-04...
2022-03-25...
2022-02-13...
2022-01-04...
2021-11-25...
2021-10-16...
2021-09-06...
2021-07-28...
2021-06-18...
2021-05-09...
2021-03-30...
2021-02-18...
2021-01-09...
0
200000
400000
600000
800000
1000000
1200000
1400000
1600000
Fully Vaccinated People
Number of fully vaccinated people