



UK Health
Security
Agency

COVID-19 vaccine surveillance report

Week 47

ICU and nearly 3 times more likely to require invasive ventilation compared to non-pregnant women with COVID-19 disease and 25% more likely to die (36).

COVID-19 vaccines used in the UK programme do not contain live SARS-CoV-2 virus and therefore cannot infect a pregnant woman or her unborn child with the virus. Whilst, as is commonly the case in trials of medicinal products, pregnant women were excluded from the original COVID-19 vaccine trials, there is accumulating experience and evidence of the safe and effective use of mRNA vaccines (such as the Pfizer-BioNTech or Moderna) in pregnant women.

This report provides first the early data on COVID-19 vaccination in pregnant women and provides preliminary findings.

Vaccine coverage

COVID-19 vaccine coverage in women before they give birth has increased as more women have become eligible for vaccination. In May 2021, only 2.8% of women giving birth had received at least 1 dose of vaccine. This increased to 9.8% of women who gave birth in June, 16.0% in July and 22.2% in August 2021 (Table 4).

In the overall 8 month period between January and August 2021 a total of 355,299 women gave birth of whom 24,759 had received at least 1 dose of COVID-19 vaccine prior to delivery. For the 18,187 women where enough information was available to derive the trimester in which the vaccine was administered, 695 (3.8%) were immunised with their earliest vaccine dose in pregnancy in their first trimester, 4,487 (24.7%) were immunised in their second trimester and 13,005 (71.5%) were immunised in their third trimester.

Of all vaccinated women giving birth, 80.8% had received Pfizer vaccine, 11.1% had received AstraZeneca vaccine and 8.1% had received Moderna vaccine.

Table 4. Overall vaccine coverage in women giving birth, by month of delivery

Month	Women giving birth	Vaccinated	Unvaccinated	Unknown vaccine status
Jan-21	41,955	18 (0.0%)	41,766 (99.5%)	171 (0.4%)
Feb-21	40,105	84 (0.2%)	39,879 (99.4%)	142 (0.4%)
Mar-21	44,657	292 (0.7%)	44,230 (99.0%)	135 (0.3%)
Apr-21	43,363	495 (1.1%)	42,687 (98.4%)	181 (0.4%)
May-21	44,831	1,255 (2.8%)	43,387 (96.8%)	189 (0.4%)
Jun-21	44,822	4,383 (9.8%)	40,277 (89.9%)	162 (0.4%)
Jul-21	48,409	7,746 (16.0%)	40,468 (83.6%)	195 (0.4%)
Aug-21	47,157	10,486 (22.2%)	36,464 (77.3%)	207 (0.4%)

Table 5. Vaccine coverage by ethnicity, for women giving birth June to August 2021

Ethnicity	Women giving birth in June to August	Vaccinated	Unvaccinated
Asian	17,248	2,320 (13.5%)	14,928 (86.5%)
Black	6,736	370 (5.5%)	6,366 (94.5%)
Other	5,579	865 (15.5%)	4,714 (84.5%)
Mixed	3,311	463 (14.0%)	2,848 (86.0%)
White	100,555	17,599 (17.5%)	82,956 (82.5%)
Unknown ¹	6,395	998 (15.6%)	5,397 (84.4%)

¹564 women could not be matched with a NIMS record and their ethnicity and vaccine status are therefore unknown.

Table 6. Vaccine coverage by quintile of deprivation of the small area in which the woman lived, for women giving birth June to August 2021

Quintile of deprivation	Women giving birth in June to August	Vaccinated	Unvaccinated
1 - most deprived	35,263	2,751 (7.8%)	32,512 (92.2%)
2	30,448	3,964 (13.0%)	26,484 (87.0%)
3	27,146	4,847 (17.9%)	22,299 (82.1%)
4	24,462	5,189 (21.2%)	19,273 (78.8%)
5 - least deprived	21,751	5,770 (26.5%)	15,981 (73.5%)
Unknown ¹	754	94 (12.5%)	660 (87.5%)

¹564 women could not be matched with a NIMS record and their quintile of deprivation and vaccine status are therefore unknown.

Table 7. Vaccine coverage by age of mother, for women giving birth June to August 2021

Age	Women giving birth in June to August	Vaccinated	Unvaccinated
Under 20	2,463	71 (2.9%)	2,392 (97.1%)
20 to 24	15,903	738 (4.6%)	15,165 (95.4%)
25 to 29	35,417	2,915 (8.2%)	32,502 (91.8%)
30 to 34	48,655	9,164 (18.8%)	39,491 (81.2%)
35 to 39	29,719	7,709 (25.9%)	22,010 (74.1%)
40 to 44	7,246	1,924 (26.6%)	5,322 (73.4%)
45 and above ¹	420	93 (22.1%)	327 (77.9%)

¹564 women could not be matched with a NIMS record and their age group and vaccine status are therefore unknown.

Using the most recent 3-month period (during which time there were 22,615 vaccinated women giving birth, accounting for 91.3% of all vaccinated women giving birth since January) there