**SUPPLEMENTARY MATERIAL**

Trobayo Sanmartín C, et al. Differences in transmission between SARS-CoV-2 Alpha (B.1.1.7) and Delta (B.1.617.2) variants. *Microbiology Spectrum*.

Table S1. Secondary attack rates by SARS-CoV-2 variant, and vaccination status of the index case, and age and vaccination status of the close contact.

| Close contact vaccination status and age | All close contacts | Close contacts of vaccinated index case | Close contacts of unvaccinated index case |
|----------------------------------------|-------------------|----------------------------------------|----------------------------------------|
|                                        | Infections / contacts | SAR % | Infections / contacts | SAR % | Infections / contacts | SAR % |
| **Unvaccinated close contact**          |                    |       |                        |       |                        |       |
| Total                                  |                    |       |                        |       |                        |       |
| Alpha variant                          | 424/1430           | 30    | 32/97                  | 33    | 392/1333               | 29    |
| Delta variant                          | 911/2102           | 43    | 193/475                | 41    | 718/1627               | 44    |
| Aged <18 years                          |                    |       |                        |       |                        |       |
| Alpha variant                          | 190/592            | 32    | 17/38                  | 45    | 173/554                | 31    |
| Delta variant                          | 430/1075           | 40    | 146/325                | 45    | 284/750                | 38    |
| Aged 18 to 39 years                    |                    |       |                        |       |                        |       |
| Alpha variant                          | 182/649            | 28    | 12/50                  | 24    | 170/599                | 28    |
| Delta variant                          | 427/869            | 49    | 37/111                 | 33    | 390/758                | 52    |
| Aged ≥40 years                          |                    |       |                        |       |                        |       |
| Alpha variant                          | 52/189             | 28    | 3/9                    | 33    | 49/180                 | 27    |
| Delta variant                          | 54/158             | 34    | 10/39                  | 26    | 44/119                 | 37    |
| **Vaccinated close contact**            |                    |       |                        |       |                        |       |
| Total                                  |                    |       |                        |       |                        |       |
| Alpha variant                          | 82/709             | 12    | 21/115                 | 18    | 61/594                 | 10    |
| Delta variant                          | 483/3337           | 15    | 232/1550               | 15    | 251/1787               | 14    |
| Aged <18 years                          |                    |       |                        |       |                        |       |
| Alpha variant                          | 0/2                | 0     | 0/0                    | NA    | 0/2                    | 0     |
| Delta variant                          | 13/45              | 29    | 9/25                   | 36    | 4/20                   | 20    |
| Aged 18 to 39 years                    |                    |       |                        |       |                        |       |
| Alpha variant                          | 13/81              | 16    | 3/11                   | 27    | 10/70                  | 14    |
| Delta variant                          | 94/617             | 15    | 34/322                 | 11    | 60/295                 | 20    |
| Aged ≥40 years                          |                    |       |                        |       |                        |       |
| Alpha variant                          | 69/626             | 11    | 18/104                 | 17    | 51/522                 | 10    |
| Delta variant                          | 376/2675           | 14    | 189/1203               | 16    | 187/1472               | 13    |

SAR, secondary attack rate; NA, not available.
| Age of the close contact and variant | All close contacts | | Unvaccinated close contacts | | Infections / contacts | SAR % | Adjusted RR (95% CI) | P | Infections / contacts | SAR % | Adjusted RR (95% CI) | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 to 5 years | | | | | | | | | | | | | |
| Alpha variant | 43/144 | 30 | 1 | 43/144 | 30 | 1 | | | | | | | |
| Delta variant | 84/234 | 36 | 0.64 (0.33-1.25) | 0.191 | 84/234 | 36 | 0.64 (0.33-1.25) | 0.191 | | | | | |
| 6 to 11 years | | | | | | | | | | | | | |
| Alpha variant | 55/143 | 39 | 1 | 55/143 | 39 | 1 | | | | | | | |
| Delta variant | 146/349 | 42 | 1.26 (0.73-2.16) | 0.404 | 146/349 | 42 | 1.26 (0.73-2.16) | 0.404 | | | | | |
| 12 to 17 years | | | | | | | | | | | | | |
| Alpha variant | 92/307 | 30 | 1 | 92/305 | 30 | 1 | | | | | | | |
| Delta variant | 213/537 | 40 | 1.09 (0.76-1.55) | 0.652 | 200/492 | 41 | 1.08 (0.75-1.54) | 0.691 | | | | | |
| 18 to 39 years | | | | | | | | | | | | | |
| Alpha variant | 195/730 | 27 | 1 | 182/649 | 28 | 1 | | | | | | | |
| Delta variant | 521/1486 | 35 | 1.62 (1.29-2.03) | <0.001 | 427/869 | 49 | 1.64 (1.30-2.08) | <0.001 | | | | | |
| 40 to 59 years | | | | | | | | | | | | | |
| Alpha variant | 84/550 | 15 | 1 | 48/179 | 27 | 1 | | | | | | | |
| Delta variant | 274/1942 | 14 | 1.29 (0.89-1.87) | 0.176 | 46/131 | 35 | 1.19 (0.55-2.56) | 0.663 | | | | | |
| ≥60 years | | | | | | | | | | | | | |
| Alpha variant | 37/265 | 14 | 1 | 4/10 | 40 | 1 | | | | | | | |
| Delta variant | 156/891 | 18 | 1.35 (0.78-2.38) | 0.286 | 8/27 | 30 | 0.81 (0.05-13.34) | 0.883 | | | | | |

SAR, secondary attack rate; RR, relative risk; CI confidence interval.

*RR, relative risk adjusted by age group (≤5, 6–11, 12–17, 18–39, 40–59 and ≥60 years), sex, contact setting (household or other), major chronic conditions and COVID-19 vaccination status of the close contact, and age group, COVID-19 vaccination status and month of the index case.
Table S3. Comparison of the risk of transmission between Delta and Alpha (reference) variants of SARS-CoV-2 by age of the infected index cases.

| Index case age and variant | All close contacts | Unvaccinated close contacts |
|---------------------------|--------------------|-----------------------------|
|                           | Infections / contacts | SAR % | Adjusted RR (95% CI) | P | Infections / contacts | SAR % | Adjusted RR (95% CI) | P |
| 0 to 5 years               |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 16/62              | 26  | 1                |   | 15/54              | 28  | 1                |   |
| Delta variant             | 21/103             | 20  | 0.17 (0.02-2.03) | 0.162 | 13/64              | 20  | 0.24 (0.02-2.97) | 0.265 |
| 6 to 11 years             |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 20/66              | 30  | 1                |   | 20/53              | 38  | 1                |   |
| Delta variant             | 42/208             | 20  | 0.80 (0.39-1.65) | 0.547 | 28/117             | 24  | 0.61 (0.28-1.33) | 0.214 |
| 12 to 17 years            |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 60/351             | 17  | 1                |   | 56/278             | 20  | 1                |   |
| Delta variant             | 239/992            | 24  | 1.64 (1.09-2.47) | 0.017 | 179/455            | 39  | 1.64 (1.06-2.53) | 0.026 |
| 18 to 39 years            |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 252/1145           | 22  | 1                |   | 207/694            | 30  | 1                |   |
| Delta variant             | 669/2542           | 26  | 1.48 (1.22-1.79) | <0.001 | 472/1029          | 46  | 1.42 (1.14-1.76) | 0.002 |
| 40 to 59 years            |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 134/438            | 31  | 1                |   | 115/319            | 36  | 1                |   |
| Delta variant             | 270/985            | 27  | 0.85 (0.56-1.28) | 0.424 | 174/335            | 52  | 0.86 (0.53-1.37) | 0.513 |
| ≥60 years                 |                    |     |                   |   |                    |     |                   |   |
| Alpha variant             | 24/77              | 31  | 1                |   | 11/32              | 34  | 1                |   |
| Delta variant             | 153/609            | 25  | 0.80 (0.41-1.55) | 0.509 | 45/102             | 44  | 1.28 (0.44-3.76) | 0.652 |

SAR, secondary attack rate; RR, relative risk; CI confidence interval.

* RR, relative risk adjusted by age group (≤5, 6–11, 12–17, 18–39, 40–59 and ≥60 years), sex, contact setting (household or other), major chronic conditions and COVID-19 vaccination status of the close contact, and age group, COVID-19 vaccination status and month of the index case.