## Supplementary material 1

Table 1. Distribution of the number of PrEP users and PrEP need in England during the pre- (PrEP Impact Trial - October 2017 to February 2020 ) and postcommissioning (2021) period of PrEP by age and gender (including transgender and sexual orientation minorities)

| Age | Gender | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Post-commissioning (2021) |  |  |  | Pre- to postcommissioning comparisons within groups | Pre- to post- <br> commissioning <br> comparisons <br> across groups <br> PnR relative <br> difference <br> (95\% CI) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { PrEP users } \\ & \text { N (\%) } \end{aligned}$ | Non-late new HIV dx N (\%) | PnR | PnR relative difference (95\% CI) | $\begin{aligned} & \text { PrEP users } \\ & \text { N (\%) } \end{aligned}$ | Non-late new HIV dx N (\%) | PnR | PnR relative difference (95\% CI) | PnR relative difference (95\% CI) |  |
| Overall | Total | 21,292 (100.0\%) | 5,019 (100.0\%) | 4.2 | N/A | 60,384 (100.0\%) | 1,234 (100.0\%) | 48.9 | N/A | 11.53* (10.82-12.30) | N/A |
|  | Men, of which: | 20,626 (96.9\%) | 3,797 (75.7\%) | 5.4 | Baseline group | 57,169 (94.7\%) | 895 (72.5\%) | 63.9 | Baseline group | 11.76* (10.91-12.67) | Baseline group |
|  | MSM | 20,349 (95.6\%) | 2,423 (48.3\%) | 8.4 | N/A | 49,543 (82.0\%) | 483 (39.1\%) | 102.6 | N/A | 12.21* (11.06-13.48) | N/A |
|  | Heterosexual men | 277 (1.3\%) | 1,374 (27.4\%) | 0.2 | N/A | 7,626 (12.6\%) | 412 (33.4\%) | 18.5 | N/A | 91.81* (78.02-108.04) | N/A |
|  | Women | 623 (2.9\%) | 1,219 (24.3\%) | 0.5 | 0.09* (0.08-0.10) | 1,198 (2.0\%) | 338 (27.4\%) | 3.5 | 0.06* (0.05-0.06) | 6.94* (5.94-8.09) | 0.59* (0.50-0.70) |
|  | Transgender people ${ }^{1}$ | 456 (2.1\%) | 9 (0.2\%) | 50.7 | N/A | 527 (0.9\%) | 4 (0.3\%) | 131.6 | N/A | 2.60 (0.80-8.50) | N/A |
| $\begin{gathered} 16 \text { to } \\ 24 \end{gathered}$ | Men | 2,973 (14.0\%) | 538 (10.7\%) | 5.5 | Baseline group | 8,691 (14.4\%) | 104 (8.4\%) | 83.6 | Baseline group | 15.12* (12.21-18.73) | Baseline group |
|  | Women | 115 (0.5\%) | 146 (2.9\%) | 0.8 | 0.14* (0.11-0.19) | 261 (0.4\%) | 27 (2.2\%) | 9.7 | 0.12* (0.07-0.18) | 12.27* (7.70-19.55) | 0.81 (0.49-1.35) |
|  | Subtotal | 3,104 (14.6\%) | 686 (13.7\%) | 4.5 | N/A | 9,313 (15.4\%) | 132 (10.7\%) | 70.6 | N/A | 15.59* (12.89-18.87) | N/A |
| $\begin{gathered} 25 \text { to } \\ 34 \end{gathered}$ | Men | 8,348 (39.2\%) | 1,338 (26.7\%) | 6.2 | 1.13** (1.01-1.26) | 23,603 (39.1\%) | 327 (26.5\%) | 72.2 | 0.86 (0.69-1.08) | 11.57* (10.23-13.09) | 0.77** (0.60-0.98) |
|  | Women | 251 (1.2\%) | 325 (6.5\%) | 0.8 | 0.14* (0.12-0.17) | 492 (0.8\%) | 85 (6.9\%) | 5.8 | 0.07* (0.05-0.09) | 7.49* (5.65-9.95) | 0.50* (0.35-0.71) |
|  | Subtotal | 8,617 (40.5\%) | 1,664 (33.2\%) | 5.2 | N/A | 24,830 (41.1\%) | 412 (33.4\%) | 60.3 | N/A | 11.64* (10.42-13.00) | N/A |
| $\begin{gathered} 35 \text { to } \\ 49 \end{gathered}$ | Men | 6,832 (32.1\%) | 1,231 (24.5\%) | 5.5 | 1.00 (0.90-1.12) | 17,972 (29.8\%) | 314 (25.4\%) | 57.2 | 0.68* (0.55-0.86) | 10.31* (9.08-11.71) | 0.68* (0.53-0.87) |
|  | Women | 182 (0.9\%) | 474 (9.4\%) | 0.4 | 0.07* (0.06-0.08) | 348 (0.6\%) | 154 (12.5\%) | 2.3 | 0.03* (0.02-0.04) | 5.89* (4.56-7.60) | 0.39* (0.28-0.54) |
|  | Subtotal | 7,021 (33.0\%) | 1,705 (34.0\%) | 4.1 | N/A | 18,889 (31.3\%) | 468 (37.9\%) | 40.4 | N/A | 9.80* (8.82-10.90) | N/A |
| $50 \text { to }$$64$ | Men | 2,202 (10.3\%) | 579 (11.5\%) | 3.8 | 0.69* (0.60-0.78) | 6,184 (10.2\%) | 119 (9.6\%) | 52.0 | 0.62* (0.48-0.81) | 13.66* (11.15-16.74) | 0.90 (0.67-1.21) |
|  | Women | 64 (0.3\%) | 226 (4.5\%) | 0.3 | 0.05* (0.04-0.07) | 88 (0.1\%) | 65 (5.3\%) | 1.4 | 0.02* (0.01-0.02) | 4.78* (3.13-7.31) | 0.32* (0.20-0.51) |
|  | Subtotal | 2,267 (10.6\%) | 805 (16.0\%) | 2.8 | N/A | 6,583 (10.9\%) | 184 (14.9\%) | 35.8 | N/A | 12.70* (10.75-15.02) | N/A |
| 65 and over | Men | 271 (1.3\%) | 111 (2.2\%) | 2.4 | 0.44* (0.35-0.56) | 718 (1.2\%) | 31 (2.5\%) | 23.2 | 0.28* (0.18-0.42) | 9.49* (6.22-14.47) | 0.63** (0.39-1.01) |
|  | Women | 11 (0.1\%) | 48 (1.0\%) | 0.2 | 0.04* (0.02-0.08) | 7 (0.0\%) | 7 (0.6\%) | 1.0 | 0.01* (0.00-0.03) | 4.36** (1.27-15.01) | 0.29** (0.08-1.01) |
|  | Subtotal | 283 (1.3\%) | 159 (3.2\%) | 1.8 | N/A | 766 (1.3\%) | 38 (3.1\%) | 20.2 | N/A | 11.33* (7.75-16.55) | N/A |

[^0]Table 2. Distribution of the number of PrEP users and PrEP need in England during the pre- (PrEP Impact Trial - October 2017 to February 2020 ) and postcommissioning (2021) period of PrEP by ethnicity and gender

| Ethnicity | Gender | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Post-commissioning (2021) |  |  |  | Pre- to postcommissioning comparisons within | Pre- to postcommissioning comparisons across |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PrEP users N (\%) | Non-late new <br> HIV dx <br> N (\%) <br> 2 ( 2106 ) | PnR | PnR relative difference (95\% CI) | PrEP users N (\%) | Non-late new HIV dx N(\%) | PnR | PnR relative difference (95\% CI) | PnR relative difference (95\% CI) | PnR relative difference (95\% CI) |
| White | Men | 15,669 (73.6\%) | 2,196 (43.8\%) | 7.1 | Baseline group | 41,765 (69.2\%) | 435 (35.3\%) | 96.0 | Baseline group | 13.46* (12.12-14.94) | Baseline group |
|  | Women | 367 (1.7\%) | 367 (7.3\%) | 1.0 | 0.14* (0.12-0.16) | 714 (1.2\%) | 90 (7.3\%) | 7.9 | 0.08* (0.07-0.10) | 7.93* (6.10-10.32) | 0.59* (0.44-0.78) |
|  | Subtotal | 16,061 (75.4\%) | 2,564 (51.1\%) | 6.3 | N/A | 44,106 (73.0\%) | 526 (42.6\%) | 83.9 | N/A | 13.39* (12.17-14.73) | N/A |
| Black <br> African | Men | 339 (1.6\%) | 293 (5.8\%) | 1.2 | 0.16* (0.14-0.19) | 1,050 (1.7\%) | 79 (6.4\%) | 13.3 | 0.14* (0.11-0.18) | 11.49* (8.71-15.15) | 0.85 (0.63-1.15) |
|  | Women | 36 (0.2\%) | 395 (7.9\%) | 0.1 | 0.01* (0.01-0.02) | 42 (0.1\%) | 122 (9.9\%) | 0.3 | 0.00* (0.00-0.01) | 3.78* (2.32-6.16) | 0.28* (0.17-0.46) |
|  | Subtotal | 376 (1.8\%) | 688 (13.7\%) | 0.5 | N/A | 1,131 (1.9\%) | 201 (16.3\%) | 5.6 | N/A | 10.30* (8.47-12.52) | N/A |
| Black Caribbean | Men | 341 (1.6\%) | 86 (1.7\%) | 4.0 | 0.56* (0.44-0.71) | 964 (1.6\%) | 28 (2.3\%) | 34.4 | 0.36* (0.24-0.53) | 8.68* (5.57-13.54) | 0.65** (0.41-1.02) |
|  | Women | 9 (0.0\%) | 38 (0.8\%) | 0.2 | 0.03* (0.02-0.07) | 19 (0.0\%) | 15 (1.2\%) | 1.3 | 0.01* (0.01-0.03) | 5.35* (1.98-14.44) | 0.40** (0.15-1.08) |
|  | Subtotal | 350 (1.6\%) | 124 (2.5\%) | 2.8 | N/A | 996 (1.6\%) | 43 (3.5\%) | 23.2 | N/A | 8.21* (5.68-11.85) | N/A |
| Black <br> Other | Men | 128 (0.6\%) | 66 (1.3\%) | 1.9 | 0.27* (0.20-0.37) | 336 (0.6\%) | 22 (1.8\%) | 15.3 | 0.16* (0.10-0.25) | 7.88* (4.66-13.30) | 0.59** (0.34-1.00) |
|  | Women | 6 (0.0\%) | 43 (0.9\%) | 0.1 | 0.02* (0.01-0.05) | 13 (0.0\%) | 7 (0.6\%) | 1.9 | 0.02* (0.01-0.05) | 13.31* (3.80-46.67) | 0.99 (0.28-3.48) |
|  | Subtotal | 134 (0.6\%) | 109 (2.2\%) | 1.2 | N/A | 358 (0.6\%) | 29 (2.4\%) | 12.3 | N/A | 10.04* (6.37-15.83) | N/A |
| Asian | Men | 1,041 (4.9\%) | 240 (4.8\%) | 4.3 | 0.61* (0.52-0.70) | 4,413 (7.3\%) | 69 (5.6\%) | 64.0 | 0.67* (0.52-0.86) | 14.75* (11.19-19.43) | 1.10 (0.82-1.47) |
|  | Women | 46 (0.2\%) | 51 (1.0\%) | 0.9 | 0.13* (0.08-0.19) | 86 (0.1\%) | 13 (1.1\%) | 6.6 | 0.07* (0.04-0.12) | 7.33* (3.62-14.86) | 0.55** (0.27-1.11) |
|  | Subtotal | 1,092 (5.1\%) | 292 (5.8\%) | 3.7 | N/A | 4,616 (7.6\%) | 82 (6.6\%) | 56.3 | N/A | 15.05* (11.68-19.40) | N/A |
| Mixed/ other | Men | 1,646 (7.7\%) | 411 (8.2\%) | 4.0 | 0.56* (0.50-0.63) | 4,675 (7.7\%) | 76 (6.2\%) | 61.5 | 0.64* (0.50-0.82) | 15.36* (11.95-19.74) | 1.14 (0.87-1.50) |
|  | Women | 87 (0.4\%) | 85 (1.7\%) | 1.0 | 0.14* (0.11-0.19) | 175 (0.3\%) | 25 (2.0\%) | 7.0 | 0.07* (0.05-0.11) | 6.84* (4.09-11.44) | 0.51** (0.30-0.86) |
|  | Subtotal | 1,740 (8.2\%) | 497 (9.9\%) | 3.5 | N/A | 4,960 (8.2\%) | 101 (8.2\%) | 49.1 | N/A | 14.03* (11.25-17.49) | N/A |
| Not stated | Men | 1,462 (6.9\%) | 505 (10.1\%) | 2.9 | 0.41* (0.36-0.45) | 3,966 (6.6\%) | 186 (15.1\%) | 21.3 | 0.22* (0.19-0.26) | 7.37* (6.16-8.80) | 0.55* (0.45-0.67) |
|  | Women | 72 (0.3\%) | 240 (4.8\%) | 0.3 | 0.04* (0.03-0.05) | 149 (0.2\%) | 66 (5.3\%) | 2.3 | 0.02* (0.02-0.03) | 7.53* (5.09-11.13) | 0.56* (0.37-0.84) |
|  | Subtotal | 1,539 (7.2\%) | 745 (14.8\%) | 2.1 | N/A | 4,217 (7.0\%) | 252 (20.4\%) | 16.7 | N/A | 8.10* (6.94-9.45) | N/A |
| Latin American ${ }^{2}$ | Men | 714 (3.4\%) | 216 (4.3\%) | 3.3 | 0.46* (0.40-0.54) | 2,459 (4.1\%) | 49 (4.0\%) | 50.2 | 0.52* (0.39-0.70) | 15.18* (11.01-20.93) | 1.13 (0.80-1.58) |
|  | Women | 81 (0.4\%) | 21 (0.4\%) | 3.9 | 0.54** (0.33-0.88) | 218 (0.4\%) | 4 (0.3\%) | 54.5 | 0.57 (0.21-1.53) | 14.13* (4.71-42.42) | 1.05 (0.35-3.17) |
|  | Subtotal | 796 (3.7\%) | 238 (4.7\%) | 3.3 | N/A | 2,702 (4.5\%) | 52 (4.2\%) | 52.0 | N/A | 15.54* (11.39-21.19) | N/A |

[^1]Table 3. Distribution of the number of PrEP users and PrEP need in England during the pre- (PrEP Impact Trial - October 2017 to February 2020) and postcommissioning (2021) period of PrEP by region of residence and gender.

| Region | Gender | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Post-commissioning (2021) |  |  |  | Pre- to postcommissioning comparisons within | Pre- to postcommissioning comparisons across |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PrEP users <br> N (\%) | Non-late new HIV dx N (\%) | PnR | PnR relative difference (95\% CI) | PrEP users <br> N (\%) | Non-late new HIV dx N(\%) | PnR | PnR relative difference ( $95 \% \mathrm{Cl}$ ) | PnR relative difference (95\% CI) | PnR relative difference ( $95 \% \mathrm{Cl}$ ) |
| London | Men | 10,927 (52.1\%) | 1,706 (34.0\%) | 6.4 | Baseline group | 32,708 (55.2\%) | 318 (25.8\%) | 102.9 | Baseline group | 16.06* (14.22-18.14) | Baseline group |
|  | Women | 330 (1.6\%) | 454 (9.0\%) | 0.7 | 0.11* (0.10-0.13) | 668 (1.1\%) | 108 (8.8\%) | 6.2 | 0.06* (0.05-0.08) | 8.51* (6.64-10.90) | 0.53* (0.40-0.70) |
|  | Subtotal | 11,275 (53.8\%) | 2,161 (43.1\%) | 5.2 | N/A | 33,569 (56.6\%) | 426 (34.5\%) | 78.8 | N/A | 15.10* (13.58-16.79) | N/A |
| Midlands \& East of England | Men | 2,518 (12.0\%) | 737 (14.7\%) | 3.4 | 0.53* (0.48-0.59) | 5,816 (9.8\%) | 218 (17.7\%) | 26.7 | 0.26* (0.22-0.31) | 7.81* (6.67-9.15) | 0.49* (0.40-0.59) |
|  | Women | 92 (0.4\%) | 334 (6.7\%) | 0.3 | 0.04* (0.03-0.05) | 152 (0.3\%) | 96 (7.8\%) | 1.6 | 0.02* (0.01-0.02) | 5.75* (4.07-8.11) | 0.36* (0.25-0.52) |
|  | Subtotal | 2,615 (12.5\%) | 1,072 (21.4\%) | 2.4 | N/A | 6,726 (11.3\%) | 314 (25.4\%) | 21.4 | N/A | 8.78* (7.68-10.04) | N/A |
| North of England | Men | 3,274 (15.6\%) | 783 (15.6\%) | 4.2 | 0.65* (0.59-0.72) | 9,231 (15.6\%) | 207 (16.8\%) | 44.6 | 0.43* (0.36-0.52) | 10.67* (9.10-12.49) | 0.66* (0.54-0.81) |
|  | Women | 84 (0.4\%) | 233 (4.6\%) | 0.4 | 0.06* (0.04-0.07) | 180 (0.3\%) | 78 (6.3\%) | 2.3 | 0.02* (0.02-0.03) | 6.40* (4.45-9.22) | 0.40* (0.27-0.59) |
|  | Subtotal | 3,366 (16.1\%) | 1,016 (20.2\%) | 3.3 | N/A | 9,858 (16.6\%) | 285 (23.1\%) | 34.6 | N/A | 10.44* (9.10-11.97) | N/A |
| South of England | Men | 3,595 (17.2\%) | 571 (11.4\%) | 6.3 | 0.98 (0.89-1.09) | 8,454 (14.3\%) | 152 (12.3\%) | 55.6 | 0.54* (0.45-0.66) | 8.83* (7.36-10.61) | 0.55* (0.44-0.69) |
|  | Women | 94 (0.4\%) | 198 (3.9\%) | 0.5 | 0.07* (0.06-0.10) | 179 (0.3\%) | 56 (4.5\%) | 3.2 | 0.03* (0.02-0.04) | 6.73* (4.57-9.92) | 0.42* (0.28-0.63) |
|  | Subtotal | 3,700 (17.7\%) | 770 (15.3\%) | 4.8 | N/A | 9,147 (15.4\%) | 209 (16.9\%) | 43.8 | N/A | 9.11* (7.78-10.66) | N/A |

*p-value<0.01

Table 4. Distribution of the number of PrEP users and PrEP need in England during the pre- (PrEP Impact Trial - October 2017 to February 2020 ) and postcommissioning (2021) period of PrEP by region of residence and ethnicity.

| Region | Ethnicity | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Post-commissioning (2021) |  |  |  | Pre- to postcommissioning comparisons within groups | Pre- to postcommissioning comparisons across groups <br> PnR ratio (95\% CI) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PrEP users (\%) | Non-late new HIV diagnoses (\%) | PnR | PnR ratio (95\% CI) | PrEP users (\%) | Non-late new HIV diagnoses (\%) | PnR | PnR ratio (95\% CI) | PnR ratio (95\% CI) |  |
| London | White | 7,655 (36.5\%) | 883 (17.6\%) | 8.67 | Baseline group | 22,371 (37.7\%) | 134 (10.9\%) | 166.95 | Baseline group | 19.26* (16.03-23.14) | Baseline group |
|  | Black African | 261 (1.2\%) | 282 (5.6\%) | 0.93 | 0.11* (0.09-0.13) | 843 (1.4\%) | 64 (5.2\%) | 13.17 | 0.08* (0.06-0.11) | 14.23 (10.49-19.30) | 0.74** (0.52-1.05) |
|  | Black other ${ }^{3}$ | 385 (1.8\%) | 138 (2.7\%) | 2.79 | 0.32* (0.26-0.40) | 1,032 (1.7\%) | 36 (2.9\%) | 28.67 | 0.17* (0.12-0.25) | 10.28* (6.99-15.10) | 0.53* (0.35-0.82) |
|  | Asian | 702 (3.3\%) | 138 (2.7\%) | 5.09 | 0.59* (0.48-0.71) | 3,145 (5.3\%) | 33 (2.7\%) | 95.30 | 0.57* (0.39-0.84) | 18.73* (12.70-27.63) | 0.97 (0.63-1.50) |
|  | Mixed/other | 1,253 (6.0\%) | 311 (6.2\%) | 4.03 | 0.46* (0.40-0.54) | 3,594 (6.1\%) | 43 (3.5\%) | 83.58 | 0.50* (0.35-0.71) | 20.75* (14.98-28.72) | 1.08 (0.74-1.57) |
|  | Not stated | 1,019 (4.9\%) | 409 (8.1\%) | 2.49 | 0.29* (0.25-0.33) | 2,584 (4.4\%) | 116 (9.4\%) | 22.28 | 0.13* (0.10-0.17) | 8.94* (7.19-11.12) | 0.46* (0.35-0.62) |
|  | Subtotal | 11,275 (53.8\%) | 2,161 (43.1\%) | 5.22 | N/A | 33,569 (56.6\%) | 426 (34.5\%) | 78.80 | N/A | 15.10* (13.58-16.79) | N/A |
| Midlands \& East of England | White | 2,138 (10.2\%) | 554 (11.0\%) | 3.86 | 0.45* (0.40-0.50) | 5,285 (8.9\%) | 132 (10.7\%) | 40.04 | 0.24* (0.19-0.31) | 10.37* (8.52-12.63) | 0.54* (0.41-0.70) |
|  | Black African | 37 (0.2\%) | 194 (3.9\%) | 0.19 | 0.02* (0.02-0.03) | 99 (0.2\%) | 63 (5.1\%) | 1.57 | 0.01* (0.01-0.01) | 8.24* (5.14-13.22) | 0.43* (0.26-0.71) |
|  | Black other | 35 (0.2\%) | 48 (1.0\%) | 0.73 | 0.08* (0.05-0.13) | 119 (0.2\%) | 18 (1.5\%) | 6.61 | 0.04* (0.02-0.07) | 9.07* (4.69-17.54) | 0.47** (0.24-0.93) |
|  | Asian | 154 (0.7\%) | 73 (1.5\%) | 2.11 | 0.24* (0.18-0.32) | 478 (0.8\%) | 26 (2.1\%) | 18.38 | 0.11* (0.07-0.17) | 8.71* (5.38-14.13) | 0.45* (0.27-0.76) |
|  | Mixed/other | 130 (0.6\%) | 59 (1.2\%) | 2.20 | 0.25* (0.19-0.35) | 316 (0.5\%) | 19 (1.5\%) | 16.63 | 0.10* (0.06-0.16) | 7.55* (4.33-13.16) | 0.39* (0.22-0.70) |
|  | Not stated | 121 (0.6\%) | 144 (2.9\%) | 0.84 | 0.10* (0.08-0.12) | 429 (0.7\%) | 56 (4.5\%) | 7.66 | 0.05* (0.03-0.06) | 9.12* (6.31-13.18) | 0.47* (0.31-0.71) |
|  | Subtotal | 2,615 (12.5\%) | 1,072 (21.4\%) | 2.44 | N/A | 6,726 (11.3\%) | 314 (25.4\%) | 21.42 | N/A | 8.78* (7.68-10.04) | N/A |
| North of England | White | 2,958 (14.1\%) | 645 (12.9\%) | 4.59 | 0.53* (0.47-0.59) | 8,034 (13.5\%) | 149 (12.1\%) | 53.92 | 0.32* (0.26-0.41) | 11.76* (9.79-14.12) | 0.61* (0.47-0.79) |
|  | Black African | 34 (0.2\%) | 125 (2.5\%) | 0.27 | 0.03* (0.02-0.05) | 102 (0.2\%) | 40 (3.2\%) | 2.55 | 0.02* (0.01-0.02) | 9.38* (5.54-15.88) | 0.49** (0.28-0.85) |
|  | Black other | 24 (0.1\%) | 24 (0.5\%) | 1.00 | 0.12* (0.07-0.20) | 107 (0.2\%) | 7 (0.6\%) | 15.29 | 0.09* (0.04-0.20) | 15.29* (5.90-39.57) | 0.79 (0.30-2.09) |
|  | Asian | 108 (0.5\%) | 40 (0.8\%) | 2.70 | 0.31* (0.22-0.45) | 502 (0.8\%) | 11 (0.9\%) | 45.64 | 0.27* (0.15-0.51) | 16.90* (8.40-34.00) | 0.88 (0.43-1.81) |
|  | Mixed/other | 164 (0.8\%) | 72 (1.4\%) | 2.28 | 0.26* (0.20-0.35) | 503 (0.8\%) | 27 (2.2\%) | 18.63 | 0.11* (0.07-0.17) | 8.18* (5.08-13.17) | 0.42* (0.25-0.71) |
|  | Not stated | 78 (0.4\%) | 110 (2.2\%) | 0.71 | 0.08* (0.06-0.11) | 610 (1.0\%) | 51 (4.1\%) | 11.96 | 0.07* (0.05-0.10) | 16.87* (11.23-25.34) | 0.88 (0.56-1.37) |
|  | Subtotal | 3,366 (16.1\%) | 1,016 (20.2\%) | 3.31 | N/A | 9,858 (16.6\%) | 285 (23.1\%) | 34.59 | N/A | 10.44* (9.10-11.97) | N/A |
| South of England | White | 3,138 (15.0\%) | 482 (9.6\%) | 6.51 | 0.75* (0.67-0.85) | 7,646 (12.9\%) | 111 (9.0\%) | 68.88 | 0.41* (0.32-0.53) | 10.58* (8.57-13.06) | 0.55* (0.42-0.73) |
|  | Black African | 42 (0.2\%) | 87 (1.7\%) | 0.48 | 0.06* (0.04-0.08) | 69 (0.1\%) | 34 (2.8\%) | 2.03 | 0.01* (0.01-0.02) | 4.20* (2.42-7.30) | 0.22* (0.12-0.39) |
|  | Black other | 37 (0.2\%) | 23 (0.5\%) | 1.61 | 0.19* (0.11-0.31) | 80 (0.1\%) | 11 (0.9\%) | 7.27 | 0.04* (0.02-0.08) | 4.52* (2.00-10.24) | 0.23* (0.10-0.54) |
|  | Asian | 118 (0.6\%) | 41 (0.8\%) | 2.88 | 0.33* (0.23-0.48) | 403 (0.7\%) | 12 (1.0\%) | 33.58 | 0.20* (0.11-0.37) | 11.67* (5.94-22.92) | 0.61 (0.30-1.22) |
|  | Mixed/other | 173 (0.8\%) | 55 (1.1\%) | 3.15 | 0.36* (0.27-0.50) | 463 (0.8\%) | 12 (1.0\%) | 38.58 | 0.23* (0.13-0.42) | 12.27* (6.41-23.46) | 0.64 (0.32-1.25) |
|  | Not stated | 192 (0.9\%) | 82 (1.6\%) | 2.34 | 0.27* (0.21-0.35) | 486 (0.8\%) | 29 (2.4\%) | 16.76 | 0.10* (0.07-0.15) | 7.16* (4.54-11.28) | 0.37* (0.23-0.61) |
|  | Subtotal | 3,700 (17.7\%) | 770 (15.3\%) | 4.81 | N/A | 9,147 (15.4\%) | 209 (16.9\%) | 43.77 | N/A | 9.11* (7.78-10.66) | N/A |

[^2]Table 5. Distribution of the number of PrEP users and PrEP need in England during the pre- (PrEP Impact Trial - October 2017 to February 2020 ) and postcommissioning (2021) period of PrEP by Index of Multiple Deprivation (IMD) and gender

| IMD | Gender | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Pre-commissioning (Oct 2017 - Feb 2020) |  |  |  | Pre- to postcommissioning comparisons within groups | Pre- to postcommissioning comparisons across groups |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PrEP users <br> N (\%) | Non-late new HIV dx N (\%) | PnR | PnR relative difference (95\% CI) | PrEP users N (\%) | Non-late new HIV dx N (\%) | PnR | PnR relative difference (95\% CI) | PnR relative difference (95\% CI) | PnR relative difference (95\% CI) |
| 5th Quintile <br> - least deprived | Men | 1,973 (9.3\%) | 294 (5.9\%) | 6.71 | Baseline group | 5,254 (8.7\%) | 50 (4.1\%) | 105.08 | Baseline group | 15.66* (11.55-21.23) | Baseline group |
|  | Women | 60 (0.3\%) | 72 (1.4\%) | 0.83 | 0.12* (0.09-0.18) | 92 (0.2\%) | 20 (1.6\%) | 4.60 | 0.04* (0.03-0.08) | 5.52* (3.05-9.98) | 0.35* (0.18-0.69) |
|  | Subtotal | 2,035 (9.6\%) | 367 (7.3\%) | 5.54 | N/A | 5,624 (9.3\%) | 71 (5.8\%) | 79.21 | N/A | 14.29* (11.02-18.51) | N/A |
| 4th Quintile | Men | 2,960 (13.9\%) | 473 (9.4\%) | 6.26 | 0.93 (0.80-1.09) | 8,354 (13.8\%) | 107 (8.7\%) | 78.07 | 0.74** (0.53-1.04) | 12.48* (10.07-15.45) | 0.80 (0.55-1.16) |
|  | Women | 85 (0.4\%) | 94 (1.9\%) | 0.90 | 0.13* (0.10-0.19) | 204 (0.3\%) | 37 (3.0\%) | 5.51 | 0.05* (0.03-0.08) | 6.10* (3.86-9.63) | 0.39* (0.22-0.67) |
|  | Subtotal | 3,051 (14.3\%) | 567 (11.3\%) | 5.38 | N/A | 8,925 (14.8\%) | 144 (11.7\%) | 61.98 | N/A | 11.52* (9.55-13.89) | N/A |
| 3rd Quintile | Men | 4,443 (20.9\%) | 687 (13.7\%) | 6.47 | 0.96 (0.83-1.12) | 12,302 (20.4\%) | 154 (12.5\%) | 79.88 | 0.76** (0.55-1.05) | 12.35* (10.34-14.76) | 0.79 (0.55-1.12) |
|  | Women | 126 (0.6\%) | 180 (3.6\%) | 0.70 | 0.10* (0.08-0.14) | 219 (0.4\%) | 58 (4.7\%) | 3.78 | 0.04* (0.02-0.05) | 5.39* (3.73-7.80) | 0.34* (0.21-0.56) |
|  | Subtotal | 4,576 (21.5\%) | 868 (17.3\%) | 5.27 | N/A | 12,917 (21.4\%) | 212 (17.2\%) | 60.93 | N/A | 11.56* (9.91-13.48) | N/A |
| 2nd Quintile | Men | 6,690 (31.4\%) | 1,112 (22.2\%) | 6.02 | 0.90 (0.78-1.03) | 18,768 (31.1\%) | 225 (18.2\%) | 83.41 | 0.79 (0.58-1.08) | 13.86* (11.98-16.04) | 0.89 (0.63-1.24) |
|  | Women | 169 (0.8\%) | 322 (6.4\%) | 0.52 | 0.08* (0.06-0.10) | 369 (0.6\%) | 82 (6.6\%) | 4.50 | 0.04* (0.03-0.06) | 8.57* (6.33-11.61) | 0.55* (0.36-0.84) |
|  | Subtotal | 6,876 (32.3\%) | 1,434 (28.6\%) | 4.79 | N/A | 19,628 (32.5\%) | 307 (24.9\%) | 63.93 | N/A | 13.33* (11.75-15.13) | N/A |
| 1st Quintile most deprived | Men | 4,248 (20.0\%) | 933 (18.6\%) | 4.55 | 0.68* (0.59-0.78) | 11,512 (19.1\%) | 273 (22.1\%) | 42.17 | 0.40* (0.30-0.54) | 9.26* (8.06-10.65) | 0.59* (0.42-0.83) |
|  | Women | 160 (0.8\%) | 363 (7.2\%) | 0.44 | 0.07* (0.05-0.08) | 295 (0.5\%) | 110 (8.9\%) | 2.68 | 0.03* (0.02-0.04) | 6.08* (4.57-8.11) | 0.39* (0.26-0.59) |
|  | Subtotal | 4,418 (20.7\%) | 1,296 (25.8\%) | 3.41 | N/A | 12,187 (20.2\%) | 383 (31.0\%) | 31.82 | N/A | 9.33* (8.29-10.51) | N/A |
| Not reported | Men | 312 (1.5\%) | 298 (5.9\%) | 1.05 | 0.16* (0.13-0.19) | 979 (1.6\%) | 86 (7.0\%) | 11.38 | 0.11* (0.08-0.15) | 10.87* (8.29-14.27) | 0.69** (0.46-1.04) |
|  | Women | 23 (0.1\%) | 188 (3.7\%) | 0.12 | 0.02* (0.01-0.03) | 019 (0.0\%) | 31 (2.5\%) | 0.61 | 0.01* (0.00-0.01) | 5.01* (2.45-10.26) | 0.32* (0.15-0.70) |
|  | Subtotal | 336 (1.6\%) | 487 (9.7\%) | 0.69 | N/A | 1,103 (1.8\%) | 117 (9.5\%) | 9.43 | N/A | 13.66* (10.79-17.30) | N/A |

* p-value<0.01
** p-value<0.1


[^0]:    ${ }^{1}$ Transgender people includes transgender men, transgender women and those who identified as non-binary and was only available for the national gender breakdown to avoid small number masking, as required by UKHSA data request policy.

    * $p$-value<0.01
    **p-value<0.1

[^1]:    ${ }^{2}$ Latin American is not an ethnicity readily available in the GUMCAD and HARS datasets and was derived from the attendee's country of birth (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Argentina, Bolivia, Bouvet, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guiana, Guyana, Paraguay, Peru, South Georgia and the South Sandwich Islands, Suriname, Uruguay, Venezuela)

    * $p$-value<0.01
    ** p-value<0.1

[^2]:    ${ }^{3}$ Here Black other includes people of Black Caribbean ethnicity

    * $p$-value<0.01
    ** $p$-value<0.1

