**Supplemental Material**

**Table 1. Descriptive characteristics of detainees upon entry and release from New York State maximum-security prison**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Female** | ***P* Value** | **Male** | ***P* Value** |
|  | EntryN = 404 (47.9%) | ReleaseN=439 (52.1%) |  | EntryN = 427 (52.1%) | ReleaseN = 393 (47.9%) |  |
| **Age mean (SE)** | 35.7 (10.6) | 37.5 (10.3) | 0.02 | 34.2 (9.5) | 35.9 (10.9) | 0.02 |
| **Race/Ethnicity** |  |  | 0.01 |  |  | 0.05 |
| Non-Hispanic white | 166 (41.1) | 138 (31.4) |  | 35 (8.2) | 35 (8.9) |  |
| Non-Hispanic black | 168 (41.6) | 193 (44.0) |  | 221 (51.8) | 236 (60.0) |  |
| Hispanic | 52 (12.9) | 77 (17.5) |  | 149 (34.9) | 103 (26.2) |  |
| &Other | 18 (4.5) | 31 (7.1) |  | 22 (5.1) | 19 (4.8) |  |
| **Education** |  |  | 0.16 |  |  | <0.01 |
| < High school | 115 (28.5) | 140 (31.9) |  | 113 (26.5) | 130 (33.1) |  |
| High school | 126 (31.2) | 150 (34.2) |  | 178 (41.5) | 188 (47.8) |  |
| > High school | 163 (40.3) | 149 (33.9) |  | 136 (31.8) | 75 (19.1) |  |
| **Current smoker**  | 238/395 (60.2) | 357 (81.3) | <0.01 | 295 (69.1) | 252 (64.2) | 0.13 |
| **IDU ever** | 49/386 (12.7) | 67/434 (15.4) | 0.26 | 23/419 (5.5) | 22/389 (5.7) | 0.92 |
| **Crack/cocaine ever** | 216/401 (53.9) | 267/436 (61.2) | 0.03 | 109/424 (25.7) | 86/392 (21.9) | 0.21 |
| **Shared personal items** | 63/403 (15.6) | 44 (10.0) | 0.01 | 31/426 (7.3) | 18 (4.6) | 0.10 |
| **Showers**  | 61 (15.1) | 36 (8.2) | <0.01 | 192 (48.6) | 255 (59.7) | <0.01 |
| **Systemic antibiotic use** | 158/402 (39.3) | 182/436 (41.7) | 0.47 | 75/424 (17.8) | 90/392 (23.0) | 0.06 |
| **Topical antibiotic use** | 124/396 (31.3) | 65/436 (14.9) | <0.01 | 102/421 (24.2) | 41/390 (10.5) | <0.01 |
| **Body piercings ever**  | 260/382 (68.1) | 284 (64.7) | 0.31 | 191/426 (44.8) | 199 (50.6) | 0.10 |
| **Previous skin infection** | 75 (18.6) | 99 (22.5) | 0.15 | 58 (13.6) | 48 (12.2) | 0.56 |
| **Obesity** | 164 (40.6) | 200 (45.6) | 0.15 | 120 (28.1) | 84 (21.4) | 0.03 |
| **Asthma** | 128/372 (34.4) | 196/437 (44.8) | <0.01 | 107/388 (27.5) | 111 (28.2) | 0.83 |
| **Diabetes**  | 29/372 (7.8) | 45/436 (10.3) | 0.21 | 10/388 (2.6) | 16 (4.1) | 0.24 |
| **Hypertension** | 53/372 (14.2) | 95/437 (21.7) | 0.01 | 59/388 (15.2) | 61 (15.5) | 0.90 |
| **Heart disease** | 13/372 (3.5) | 24/437 (5.6) | 0.17 | 5/388 (1.3) | 4 (1.0) | 0.72 |
| **Respiratory disease** | 9/372 (2.4) | 13/437 (3.0) | 0.63 | 1/388 (0.3) | 6 (1.5) | 0.06 |
| **Kidney disease** | 5/372 (1.3) | 14/437 (3.2) | 0.08 | 8/388 (2.1) | 7 (1.8) | 0.77 |
| **Liver disease**  | 37/372 (9.9) | 80/437 (18.3) | <0.01 | 33/388 (8.5) | 40 (10.2) | 0.42 |
| **HIV** | 19 (5.1) | 40 (9.1) | 0.03 | 8/388 (2.1) | 9 (2.3) | 0.83 |
| ***Staphylococcus aureus* colonization** | 205 (50.7) | 180 (41.0) | 0.01 | 253 (59.2) | 192 (48.8) | <0.01 |
| Anterior Nares | 55 (13.6) | 62 (14.2) | 0.80 | 66 (15.5) | 35 (8.9) | <0.01 |
| Oropharynx | 74 (18.4) | 62 (14.3) | 0.12 | 109 (25.6) | 106 (27.7) | 0.50 |
| Both | 75 ((18.6) | 54 (12.6) | 0.02 | 77 (18.1) | 48 (12.6) | 0.03 |
| **MRSA** | 44 (10.9) | 37 (8.6) | 0.26 | 26 (6.1) | 13 (3.4) | 0.08 |

Definition: SE: Standard error; IDU: injection drug use; MRSA: methicillin resistant *Staphylococcus aures*; HIV: Human immunodeficiency virus

&: Other refers to individuals of Asian, Native American, Pacific Islander and individuals of multiple racial/ethnic backgrounds

**Table 2. Descriptive Statistic of Inmates by *Staphylococcus aureus* Colonization Status**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **Female** | ***P* Value** | **Male** | ***P*****Value** |
|  | ColonizedN=385 (45.7%) | Not ColonizeN= 458 (54.3) |  | ColonizedN=445 (54.3%) | Not ColonizeN= 375 (45.6%) |  |
| **Age mean (SE)** | 36.2 $\pm $ 11 | 37.0 $\pm $ 11 | 0.27 | 33.6 $\pm $ 9 | 36.8 $\pm $ 11 | < 0.01 |
| **Race/ethnicity** |  |  | 0.96 |  |  | 0.27 |
| Non-Hispanic white | 138 (35.8) | 166 (36.2) |  | 40 (9.0) | 30 (8.0) |  |
| Non-Hispanic black | 165 (42.9) | 196 (42.8) |  | 234 (52.6) | 223 (59.5) |  |
| Hispanic | 61 (15.8) | 68 (14.8) |  | 147 (33.0) | 105 (28.0) |  |
| Other | 21 (5.4) | 28 (6.1) |  | 24 (5.4) | 17 (4.5) |  |
| **Education** |  |  | 0.16 |  |  | 0.03 |
| < High school | 129 (33.5) | 126 (27.5) |  | 126 (28.3) | 117 (31.2) |  |
| High school | 118 (30.6) | 158 (34.5) |  | 188 (42.2) | 178 (47.5) |  |
| > High school | 138 (35.8) | 174 (38.0) |  | 131 (29.4) | 80 (21.3) |  |
| **Current smoker**  | 263/381 (69.0) | 332/453 (73.3) | 0.17 | 299 (67.2) | 248 (66.1) | 0.75 |
| **IDU ever** | 60/378 (15.9) | 56/442 (12.7) | 0.19 | 18/440 (4.1) | 27/368 (7.3) | 0.04 |
| **Crack/cocaine ever** | 216/382 (56.5) | 267/455 (56.7) | 0.53 | 101/443 (22.8) | 94/373 (25.2) | 0.42 |
| **Shared personal items** | 60 (15.6) | 47/457 (10.3) | 0.02 | 32 (7.2) | 17/374 (4.5) | 0.11 |
| **Showers**  | 45 (11.7) | 52 (11.3) | 0.88 | 256 (57.5) | 191 (50.9) | 0.06 |
| **Systemic antibiotic use** | 154/382 (40.3) | 186/456 (40.8) | 0.89 | 77/442 (17.4) | 88/374 (23.5) | 0.03 |
| **Topical antibiotic use** | 92/380 (24.2) | 97/452 (21.5) | 0.35 | 90/439 (20.5) | 53/372 (14.2) | 0.020 |
| **Body piercings ever**  | 254/379 (67.0) | 290/442 (65.6) | 0.67 | 237/444 (53.4) | 153 (40.8) | < 0.01 |
| **Previous skin infection** | 82 (21.3) | 92 (20.1) | 0.66 | 59 (13.3) | 47 (12.5) | 0.76 |
| **Obesity** | 166 (43.1) | 198 (43.2) | 0.97 | 110 (24.7) | 94 (25.1) | 0.91 |
| **Asthma** | 145/373 (38.9) | 179/436 (41.1) | 0.53 | 110/418 (26.3) | 108/363 (29.7) | 0.29 |
| **Diabetes**  | 36/372 (18.2) | 38/436 (18.3) | 0.64 | 15/418 (3.6) | 11/363 (3.0) | 0.66 |
| **Hypertension** | 68/373 (18.2) | 80/436 (18.3) | 0.96 | 52/418 (12.4) | 68/363 (18.7) | 0.01 |
| **Heart disease** | 14/373 (3.7) | 23/436 (5.2) | 0.30 | 1/418 (0.2) | 8/363 (2.2) | 0.10 |
| **Respiratory disease** | 7/373 (1.9) | 15/436 (3.4) | 0.17 | 5/418 (1.2) | 2/363 (0.5) | 0.34 |
| **Kidney disease** | 8/373 (2.1) | 11/436 (2.5) | 0.72 | 6/418 (1.4) | 9/363 (2.5) | 0.29 |
| **Liver disease**  | 56/373 (15.0) | 61/373 (14.0) | 0.68 | 28/418 (6.7) | 45/363 (12.4) | 0.01 |
| **HIV** | 24/373 (6.4) | 35/436 (8.0) | 0.38 | 9/418 (2.1) | 8/363 (2.2) | 0.96 |
| **Time point (entry Vs discharge)** | 205 (53.2) | 199 (43.4) | < 0.01 | 253 (56.8) | 174 (46.4) | < 0.01 |

Definition: SE: Standard error; IDU: injection drug use; MRSA: methicillin resistant *Staphylococcus aures*; HIV: Human immunodeficiency virus

&: Other refers to individuals of Asian, Native American, Pacific Islander and individuals of multiple racial/ethnic backgrounds