

Supplemental Figure 1. Time elapsed between index HIV test and first repeat HIV test up to 36 months. First repeat HIV tests more than 36 months following an index test are grouped in the far right bin and individuals who did not have an eligible repeat HIV test in the data are not represented. Tests included in estimates of one-year cumulative incidence of repeat testing are shown to the left of the solid vertical line. Tests included in a sensitivity analysis of fifteen-month cumulative incidence of repeat testing are shown to the left of the dashed vertical line

Supplemental Table 1. Unadjusted one-year cumulative incidence of repeat HIV testing by transmission risk group and other characteristics of persons undergoing an index HIV test at publicly funded testing sites in North Carolina, 2005-2012.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | MSM\*‡ | PWID†‡ | Neither MSM nor PWID‡ | Total‡ |
| Gender |  |  |  |  |
| Male | 0.16 | 0.11 | 0.11 | 0.12 |
| Female | --- | 0.16 | 0.15 | 0.15 |
| Transgender§ | --- | 0.00 | 0.10 | 0.10 |
| Race/Ethnicity |  |  |  |  |
| White, non-Hispanic | 0.15 | 0.12 | 0.10 | 0.10 |
| Black, non-Hispanic | 0.19 | 0.16 | 0.16 | 0.17 |
| Hispanic | 0.14 | 0.13 | 0.13 | 0.13 |
| Asian/Pacific Islander | 0.14 | 0.23 | 0.10 | 0.11 |
| American Indian/ Alaska Native | 0.18 | 0.19 | 0.16 | 0.16 |
| Other/multi-racial | 0.29 | 0.29 | 0.16 | 0.17 |
| Age |  |  |  |  |
| 18-24 | 0.19 | 0.16 | 0.17 | 0.17 |
| 25-34 | 0.16 | 0.13 | 0.13 | 0.13 |
| 35-44 | 0.14 | 0.12 | 0.11 | 0.11 |
| ≥45 | 0.12 | 0.10 | 0.08 | 0.09 |
| Initial Testing Site |  |  |  |  |
| LHD/CBO¶ | 0.18 | 0.09 | 0.11 | 0.11 |
| STD Testing & Treatment | 0.17 | 0.13 | 0.15 | 0.15 |
| Drug Treatment | 0.17 | 0.13 | 0.12 | 0.12 |
| Family Planning/Sexual Health | 0.16 | 0.17 | 0.15 | 0.15 |
| CHC/PHC\\ | 0.19 | 0.08 | 0.09 | 0.09 |
| Jail | 0.13 | 0.19 | 0.15 | 0.15 |
| Other | 0.16 | 0.13 | 0.09 | 0.09 |
| Rurality of residence |  |  |  |  |
| Metropolitan | 0.17 | 0.14 | 0.14 | 0.14 |
| Micropolitan | 0.14 | 0.10 | 0.12 | 0.12 |
| Rural | 0.15 | 0.08 | 0.09 | 0.09 |
| Total | 0.164 | 0.132 | 0.136 | 0.137 |

\*Men who have sex with men (MSM), including MSM+PWID; †Persons who inject drugs (PWID), including MSM+PWID; ‡Cumulative incidence is not reported for those with missing covariate values. Some estimates may be unstable due to small numbers; §Includes male-to-female and female-to-male transgender clients; ¶Local health department/community based organization; \\Community health center/primary health care

Supplemental Table 2. Adjusted fifteen-month cumulative incidence of repeat HIV testing within transmission group of persons requesting an HIV test at publicly funded testing sites in North Carolina by rurality of zip code of residence at first (index) visit, 2005-2012.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **MSM**\*§ | | **PWID**†|| | | **Neither MSM nor PWID**¶ | |
| **Rurality of residence+** | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* |
| Metropolitan | 0.22 (0.21, 0.23) | -- | 0.20 (0.20, 0.21) | -- | 0.22 (0.22, 0.22) | -- |
| Micropolitan | 0.18 (0.17, 0.19) | -0.04 (-0.06, -0.03) | 0.18 (0.16, 0.20) | -0.04 (-0.06, -0.01) | 0.21 (0.20, 0.21) | -0.01 (-0.02, -0.01) |
| Rural | 0.21 (0.16, 0.26) | -0.01 (-0.07, 0.04) | 0.12 (0.08, 0.17) | -0.07 (-0.12, -0.01) | 0.19 (0.19, 0.20) | -0.03 (-0.03, -0.02) |
| Unadjusted Total | 0.214 |  | 0.177 |  | 0.208 |  |

\*Men who have sex with men (MSM) †Persons who inject drugs (PWID) ‡Cumulative incidence difference (CID) §Model conducted only among MSM (including MSM+PWID) clients and adjusts for age and race/ethnicity ||Model conducted only among PWID (including MSM+PWID) clients and adjusts for age, race/ethnicity, gender, and MSM status ¶Model conducted only among neither MSM nor PWID clients and adjusts for age, race/ethnicity, and gender \*\*Referent group is metropolitan clients within transmission risk group (MSM, PWID, or neither MSM nor PWID).

Supplemental Table 3. Adjusted one-year cumulative incidence of repeat HIV testing within transmission group of persons requesting an HIV test at publicly funded testing sites in North Carolina by rurality of county of residence at first (index) visit, 2005-2012.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **MSM**\*§ | | **PWID**†|| | | **Neither MSM nor PWID**¶ | |
| **Rurality of county of residence+** | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* |
| Metropolitan | 0.17 (0.16, 0.17) | -- | 0.17 (0.16, 0.18) | -- | 0.15 (0.15, 0.15) | -- |
| Micropolitan | 0.14 (0.13, 0.16) | -0.02 (-0.04, -0.01) | 0.13 (0.11, 0.15) | -0.04 (-0.07, -0.02) | 0.13 (0.13, 0.13) | -0.02 (-0.02, -0.01) |
| Rural | 0.13 (0.11, 0.16) | -0.04 (-0.06, -0.01) | 0.12 (0.08, 0.15) | -0.06 (-0.09, -0.02) | 0.11 (0.11, 0.12) | -0.03 (-0.04, -0.01) |
| Unadjusted Total | 0.164 |  | 0.132 |  | 0.136 |  |

\*Men who have sex with men (MSM) †Persons who inject drugs (PWID) ‡Cumulative incidence difference (CID) §Model conducted only among MSM (including MSM+PWID) clients and adjusts for age and race/ethnicity ||Model conducted only among PWID (including MSM+PWID) clients and adjusts for age, race/ethnicity, gender, and MSM status ¶Model conducted only among neither MSM nor PWID clients and adjusts for age, race/ethnicity, and gender \*\*Referent group is metropolitan clients within transmission risk group (MSM, PWID, or neither MSM nor PWID).

Supplemental Table 4. Adjusted one-year cumulative incidence of repeat HIV testing within transmission group of persons requesting an HIV test at publicly funded testing sites in North Carolina (excluding tests conducted during a known pregnancy or at a pregnancy/OB testing site) by rurality of zip code of residence at first (index) visit, 2005-2012.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **MSM**\*§ | | **PWID**†|| | | **Neither MSM nor PWID**¶ | |
| **Rurality of county of residence+** | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* | **Cumulative Incidence (95% CI)** | **CID**‡ **(95% CI)**\*\* |
| Metropolitan | 0.17 (0.16, 0.18) | -- | 0.16 (0.15, 0.17) | -- | 0.16 (0.15, 0.16) | -- |
| Micropolitan | 0.14 (0.13, 0.15) | -0.03 (-0.05, -0.02) | 0.12 (0.10, 0.14) | -0.04 (-0.05, -0.02) | 0.14 (0.13, 0.14) | -0.02 (-0.02, -0.02) |
| Rural | 0.15 (0.10, 0.19) | -0.02 (-0.07, 0.02) | 0.10 (0.05, 0.15) | -0.06 (-0.11, -0.01) | 0.11 (0.11, 0.12) | -0.04 (-0.04, -0.04) |
| Unadjusted Total | 0.167 |  | 0.124 |  | 0.121 |  |

\*Men who have sex with men (MSM) †Persons who inject drugs (PWID) ‡Cumulative incidence difference (CID) §Model conducted only among MSM (including MSM+PWID) clients and adjusts for age and race/ethnicity ||Model conducted only among PWID (including MSM+PWID) clients and adjusts for age, race/ethnicity, gender, and MSM status ¶Model conducted only among neither MSM nor PWID clients and adjusts for age, race/ethnicity, and gender \*\*Referent group is metropolitan clients within transmission risk group (MSM, PWID, or neither MSM nor PWID).