

SUPPLEMENTAL DIGITAL CONTENT

Table S1. Retention at database closure¹: Estimates of retention in antiretroviral therapy (ART) treatment A) overall and B) by gender, not accounting for patient transfers and accounting for patient transfers.

| Overall (N=3,406) | | | | | | |
|---|---|---|------------------------------------|--|--|--|
| A) Cumulative Incidence of Retention | | | | | | |
| Months from ART initiation | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² | | | |
| 6 | 80.7 (79.3, 82.0) | 88.4 (87.3, 89.4) | 7.7% (7.0%, 8.4%) | | | |
| 12 | 73.1 (71.5, 74.5) | 82.2 (80.8, 83.4) | 9.1% (8.4%, 9.8%) | | | |
| 18 | 66.4 (64.8, 68.0) | 76.7 (75.2, 78.1) | 10.3% (9.5%, 11.0%) | | | |
| 24 | 60.1 (58.4, 61.7) | 70.7 (69.1, 72.3) | 10.6% (9.8%, 11.4%) | | | |
| 36 | 45.4 (43.6, 47.2) | 54.3 (52.4, 56.1) | 8.9% (8.1%, 9.7%) | | | |

| Women (N=2,248) | | | | Men (N=1,158) | | |
|---|---|---|------------------------------------|---|---|------------------------------------|
| B) Cumulative Incidence of Retention | | | | Cumulative Incidence of Retention | | |
| Months from ART initiation | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² |
| 6 | 80.0 (78.2, 81.6) | 88.6 (87.2, 89.8) | 8.6% (7.7%, 9.5%) | 82.1 (79.8, 84.2) | 88.1 (86.1, 89.8) | 6.0% (4.9%, 6.9%) |
| 12 | 71.9 (69.9, 73.7) | 82.0 (80.3, 83.5) | 10.1% (9.1%, 11.1%) | 75.4 (72.8, 77.8) | 82.5 (80.2, 84.6) | 7.1% (6.0%, 8.1%) |
| 18 | 65.1 (63.1, 67.1) | 76.6 (74.8, 78.4) | 11.5% (10.5%, 12.5%) | 68.9 (66.1, 71.6) | 76.8 (74.2, 79.1) | 7.8% (6.6%, 9.0%) |
| 24 | 58.6 (56.4, 60.6) | 70.5 (68.5, 72.4) | 12.0% (10.9%, 13.0%) | 63.0 (60.0, 65.7) | 71.1 (68.3, 73.7) | 8.1% (6.7%, 9.3%) |
| 36 | 43.9 (41.6, 46.1) | 53.7 (51.4, 56.0) | 9.8% (8.8%, 10.9%) | 48.3 (45.2, 51.4) | 55.3 (52.1, 58.4) | 7.0% (5.7%, 8.3%) |

¹ Retention defined as alive and with a healthcare visit in the 180 days between database closure and administrative censoring. Attrition defined as having died or not had a healthcare visit for > 180 days. Participants were followed from ART initiation until database closure six months prior to administrative censoring (i.e. June 30th, 2016 or 36 months, whichever date came first), to allow for ascertainment of the outcome. Participants who met the definition of attrition were censored at their last recorded healthcare visit. ² 95% CI calculated via 1,000 non-parametric bootstraps.

Table S2. Time to first attrition¹: Estimates of retention in antiretroviral therapy (ART) treatment A) overall and B) by gender, not accounting for patient transfers and accounting for patient transfers.

| A) Overall (N=3,406) | | | | | | |
|--|---|---|------------------------------------|--|--|--|
| Cumulative Incidence of Retention | | | | | | |
| Months from ART initiation | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² | | | |
| 6 | 91.5 (90.5, 92.4) | 94.3 (93.5, 95.0) | 2.8% (2.4%, 3.2%) | | | |
| 12 | 61.9 (60.2, 63.5) | 68.9 (67.3, 70.4) | 7.0% (6.4%, 7.7%) | | | |
| 18 | 51.5 (49.8, 53.2) | 57.2 (55.6, 58.9) | 5.7% (5.1%, 6.4%) | | | |
| 24 | 44.7 (43.0, 46.4) | 50.0 (48.3, 51.8) | 5.3% (4.7%, 5.9%) | | | |
| 36 | 32.3 (30.7, 34.0) | 37.2 (35.4, 38.9) | 4.8% (4.3%, 5.4%) | | | |

| B) Women (N=2,248) | | | | Men (N=1,158) | | |
|--|---|---|------------------------------------|---|---|------------------------------------|
| Cumulative Incidence of Retention | | | | Cumulative Incidence of Retention | | |
| Months from ART initiation | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² | Not accounting for patient transfers | Accounting for patient transfers | % Misclassified² |
| 6 | 91.7 (90.5, 92.8) | 94.7 (93.6, 95.5) | 2.9% (2.4%, 3.5%) | 91.0 (89.2, 92.5) | 93.6 (92.0, 94.9) | 2.6% (1.9%, 3.3%) |
| 12 | 59.9 (57.8, 61.9) | 67.9 (66.0, 69.8) | 8.1% (7.2%, 8.9%) | 65.7 (62.9, 68.4) | 70.8 (68.1, 73.3) | 5.0% (4.1%, 6.0%) |
| 18 | 49.4 (47.3, 51.4) | 55.9 (53.8, 57.9) | 6.5% (5.7%, 7.3%) | 55.7 (52.7, 58.5) | 59.9 (57.0, 62.7) | 4.2% (3.3%, 5.2%) |
| 24 | 43.0 (40.9, 45.1) | 49.1 (47.0, 51.2) | 6.1% (5.3%, 6.9%) | 48.0 (45.1, 50.9) | 51.9 (48.9, 54.8) | 3.9% (3.0%, 4.7%) |
| 36 | 30.9 (28.9, 32.9) | 36.3 (34.2, 38.5) | 5.5% (4.7%, 6.2%) | 35.2 (32.3, 38.1) | 38.8 (35.8, 41.7) | 3.6% (2.7%, 4.5%) |

¹Retention defined as alive and with a healthcare visit in the previous 180 days. Attrition defined as having died or not had a healthcare visit for > 180 days. Patients are followed from ART initiation until meeting the definition of attrition, 36 months of follow-up or administrative censoring on December 31st, 2016. ²95% CI calculated via 1,000 non-parametric bootstraps.

Table S3. Retention at database closure¹: Estimates of retention in antiretroviral therapy (ART) treatment A) overall and B) by gender, not accounting for patient transfers and accounting for patient transfers when attrition is defined as died or out of care >365 days

| Months from ART initiation | Women (N=2,221) | | | Men (N=1,138) | | | Overall (N=3,359) | | |
|----------------------------|--------------------------------------|----------------------------------|------------------------------|--------------------------------------|----------------------------------|------------------------------|--------------------------------------|----------------------------------|------------------------------|
| | Cumulative Incidence of Retention | | % Misclassified ² | Cumulative Incidence of Retention | | % Misclassified ² | Cumulative Incidence of Retention | | % Misclassified ² |
| | Not accounting for patient transfers | Accounting for patient transfers | | Not accounting for patient transfers | Accounting for patient transfers | | Not accounting for patient transfers | Accounting for patient transfers | |
| 12 | 73.7 (71.8, 75.5) | 83.6 (82.0, 85.1) | 9.9% (9.0%, 10.9%) | 76.7 (74.1, 79.1) | 84.2 (81.9, 86.2) | 7.4% (6.3%, 8.6%) | 74.7 (73.2, 76.2) | 83.8 (82.5, 85.0) | 9.1% (8.3%, 9.8%) |
| 18 | 67.6 (65.5, 69.6) | 79.4 (77.6, 81.1) | 11.8% (10.8%, 13.0%) | 71.2 (68.4, 73.8) | 79.6 (77.1, 81.9) | 8.3% (7.1%, 9.6%) | 68.8 (67.2, 70.4) | 79.5 (78.0, 80.9) | 10.6% (9.8%, 11.5%) |
| 24 | 61.9 (59.8, 64.1) | 74.6 (72.6, 76.4) | 12.6% (11.5%, 13.8%) | 66.1 (63.1, 68.9) | 75.0 (72.2, 77.5) | 8.8% (7.5%, 10.2%) | 63.4 (61.6, 65.1) | 74.7 (73.1, 76.2) | 11.3% (10.5, 12.2%) |
| 36 | 52.5 (49.9, 55.0) | 64.3 (61.8, 66.8) | 11.8% (10.4%, 13.3%) | 53.1 (49.6, 56.5) | 62.5 (59.0, 65.9) | 9.3% (7.8%, 11.0%) | 52.7 (50.6, 54.7) | 63.6 (61.6, 65.6) | 11.0% (9.9%, 12.1%) |

¹ Retention defined as alive and with a healthcare visit in the 365 days between database closure and administrative censoring. Attrition defined as having died or not had a healthcare visit for > 365 days. Participants were followed from ART initiation until database closure twelve months prior (i.e. December 30th, 2016) to administrative censoring or 36 months, whichever date came first, to allow for ascertainment of the outcome. Participants who met the definition of attrition were censored at their last recorded healthcare visit. ² 95% CI calculated via 1,000 non-parametric bootstraps. Sample size: 47 people dropped from this analysis who didn't start ART at least 1 year before administrative censoring date

Table S4. Time to first attrition¹: Estimates of retention in antiretroviral therapy (ART) treatment A) overall and B) by gender, not accounting for patient transfers and accounting for patient transfers when attrition is defined as died or out of care >365 days

| Months from ART initiation | Women (N=2,248) | | | Men (N=1,158) | | | Overall (N=3,406) | | |
|----------------------------|--------------------------------------|----------------------------------|------------------------------|--------------------------------------|----------------------------------|------------------------------|--------------------------------------|----------------------------------|------------------------------|
| | Cumulative Incidence of Retention | | % Misclassified ² | Cumulative Incidence of Retention | | % Misclassified ² | Cumulative Incidence of Retention | | % Misclassified ² |
| | Not accounting for patient transfers | Accounting for patient transfers | | Not accounting for patient transfers | Accounting for patient transfers | | Not accounting for patient transfers | Accounting for patient transfers | |
| 12 | 93.3 (92.1, 94.2) | 95.7 (94.8, 96.5) | 2.5% (2.0%, 3.0%) | 92.1 (90.4, 93.6) | 93.9 (92.3, 95.1) | 1.8% (1.1%, 2.3%) | 92.9 (92.0, 93.7) | 95.1 (94.3, 95.8) | 2.2% (1.8%, 2.6%) |
| 18 | 72.0 (70.1, 73.8) | 80.3 (78.5, 81.9) | 8.3% (7.3%, 9.1%) | 75.7 (73.2, 78.1) | 80.7 (78.3, 82.9) | 5.0% (4.0%, 5.9%) | 73.3 (71.8, 74.8) | 80.4 (79.0, 81.7) | 7.1% (6.5%, 7.7%) |
| 24 | 63.3 (61.2, 65.3) | 71.5 (69.5, 73.4) | 8.2% (7.3%, 9.1%) | 67.7 (64.9, 70.4) | 73.4 (70.7, 75.9) | 5.7% (4.7%, 6.8%) | 64.8 (63.1, 66.4) | 72.2 (70.5, 73.7) | 7.3% (6.6%, 8.0%) |
| 36 | 52.1 (49.8, 54.3) | 61.5 (59.3, 63.6) | 9.4% (8.3%, 10.4%) | 56.5 (53.5, 59.5) | 63.5 (60.5, 66.4) | 7.0% (5.8%, 8.2%) | 53.6 (51.8, 55.4) | 62.2 (60.4, 63.9) | 8.6% (7.8%, 9.3%) |

¹ Retention defined as alive and with a healthcare visit in the previous 365 days. Attrition defined as having died or not had a healthcare visit for > 365 days. Patients are followed from ART initiation until meeting the definition of attrition, 36 months of follow-up or administrative censoring on December 31st, 2016. ² 95% CI calculated via 1,000 non-parametric bootstraps.

