Supplementary Table1: Factors associated with Linkage to care at 7 days, 30 days in a cohort of 2051 individuals newly diagnosed with HIV (N=1,624) or previously diagnosed with HIV but out of care (N=429), resident in one of 16 SEARCH intervention communities in Kenya and Uganda, July 2013 to June 2015.

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** |   | **7 days** | **30 days** |
| **Univariate** | **Multivariate** | **Univariate** | **Multivariate** |
|  |  | RR(95% CI) | p-value | aRR(95%CI) | p-value | RR(95% CI) | p-value | aRR(95%CI) | p-value |
| **Sex** | Male | ref |  | ref |  | ref |  | ref |  |
|  | Female | 0.88(0.81-0.96) | **0.005** | 0.89(0.81-0.98) | **0.018** | 0.94(0.87-1.01) | 0.113 | 0.94(0.87-1.02) | 0.149 |
| **Age** | 15-24 | ref |  | ref |  | ref |  | ref |  |
|  | 25-34 | 1.12(0.97-1.28) | 0.115 | 1.15(1.00-1.32) | **0.058** | 1.06(0.94-1.19) | 0.370 | 1.09(0.96-1.22) | 0.183 |
|  | 35-49 | 1.28(1.11-1.46) | **<0.001** | 1.28(1.11-1.48) | **0.001** | 1.22(1.09-1.37) | **0.001** | 1.24(1.09-1.40) | **0.001** |
|  | ≥50 years | 1.30(1.09-1.55) | **0.003** | 1.27(1.06-1.53) | **0.010** | 1.32(1.15-1.52) | **<0.001** | 1.30(1.12-1.51) | **0.001** |
| **Marital status** | Married | ref |  | ref |  | ref |  | ref |  |
|  | Single | 0.92(0.79-1.06) | 0.250 | 0.99(0.85-1.15) | 0.911 | 0.98(0.86-1.11) | 0.741 | 1.05(0.93-1.20) | 0.40 |
|  | D/Wid/Sep†  | 1.00(0.88-1.13) | 0.960 | 0.95(0.83-1.07) | 0.385 | 1.10(0.98-1.21) | 0.058 | 1.00(0.91-1.11) | 0.933 |
| **Education** | None | ref |  | ref |  | ref |  | ref |  |
|  | Primary | 0.78(0.68-0.89) | **<0.001** | 0.93(0.81-1.06) | 0.276 | 0.75(0.68-0.84) | **<0.001** | 0.91(0.81-1.01) | 0.073 |
|  | Above Primary | 0.81(0.68-0.95) | **0.011** | 1.00(0.84-1.19) | 0.981 | 0.77(0.67-0.88) | **<0.001** | 0.95(0.82-1.10) | 0.488 |
| **Occupation** | Low HIV risk | ref |  | ref |  | ref |  |  |  |
|  | High HIV risk | 0.72(0.63-0.83) | **<0.001** | 0.74(0.64-0.84) | **<0.001** | 0.78(0.70-0.87) | **<0.001** | 0.80(0.71-0.89) | **<0.001** |
| **Point tested** | CHC‡ | ref |  | ref |  | ref |  | ref |  |
|  | HBT§ | 0.70(0.62-0.78) | **<0.001** | 0.73(0.65-0.82) | **<0.001** | 0.74(0.67-0.82) | **<0.001** | 0.78(0.70-0.86) | **<0.001** |
| **Have Phone** | Yes | 1 |  |  |  |  |  |  |  |
|  | No | 0.98(0.89-1.08) | 0.649 | 0.96(0.87-1.06) | 0.445 | 0.94(0.86-1.02) | 0.134 | 0.95(0.87-1.03) | 0.198 |
| **Prior knowledge of HIV status** | Negative | ref |  | ref |  | ref |  | ref |  |
|  | Positive | 0.80(0.70-0.92) | **0.002** | 0.80(0.70-0.92) | **0.002** | 0.92(0.82-1.03) | 0.150 | 0.92(0.82-1.03) | 0.130 |
|  | DK¶/declined to respond | 1.28(1.16-1.40) | **<0.001** | 1.17(1.07-1.29) | **0.001** | 1.24(1.14-1.33) | **<0.001** | 1.13(1.04-1.23) | **0.003** |
| **Residence** | Stable | ref |  | ref |  | ref |  | ref |  |
|  | Non stable | 1.02(0.79-1.32) | 0.888 | 1.03(0.81-1.32) | 0.813 | 0.99(0.80-1.23) | 0.952 | 0.99(0.81-1.22) | 0.942 |
| **Asset score** | 1st Quartile | ref |  | ref |  | ref |  | ref |  |
|  | 2nd Quartile | 1.02(0.90-1.15) | 0.754 | 1.01(0.90-1.14) | 0.868 | 0.95(0.86-1.05) | 0.286 | 0.96(0.86-1.06) | 0.381 |
|  | 3rd Quartile | 1.07(0.95-1.20) | 0.727 | 1.03(0.92-1.16) | 0.582 | 1.02(0.92-1.12) | 0.744 | 1.00(0.91-1.09) | 0.961 |
|  | 4th Quartile | 0.78(0.68-0.89) | **<0.001** | 0.79(0.68-0.90) | **0.001** | 0.74(0.65-0.83) | **<0.001** | 0.74(0.66-0.84) | **<0.001** |
| **Baseline CD4\*** | 0-349 | ref |  |  |  | ref |  | ref |  |
|  | 350-499 | 0.91(0.81-1.02) | 0.090 | 0.90(0.80-1.00) | 0.052 | 0.92(0.83-1.01) | 0.095 | 0.92(0.83-1.01) | 0.069 |
|  | ≥500  | 0.82(0.74-0.90) | **<0.001** | 0.84(0.76-0.92) | **<0.001** | 0.87(0.80-0.95) | **<0.001** | 0.90(0.83-0.97) | **0.007** |
|  | Missing | 0.19(0.13-0.26) | **<0.001** | 0.20(0.14-0.29) | **<0.001** | 0.22(0.16-0.29) | **<0.001** | 0.23(0.17-0.31) | **<0.001** |

D/Wid/Sep †-Divorced /Widowed/ Separated CHC ‡-Community Health Campaign HBT § -Home-based Testing DK ¶-Did not Know \* Due to collinearity of missing CD4+ T cell count and home-based point of testing, multivariate associations between linkage and all independent variables except CD4 adjusted for point-of-testing but not CD4; multivariate associations between linkage and CD4 adjusted for all variables except point of testing.

Supplementary Figure 1: Linkage to care over time by gender



Supplementary Figure 2: Linkage to care over time by region



Supplementary Figure 3: Linkage to care over time by CD4+ categories



Supplementary Figure 4: Linkage to care over time by point of testing either CHC(Community Health Campaign) or HBT(Home Based Testing)

