**Supplementary Tables**

**Supplementary Table 1. Unadjusted and adjusted analyses of factors associated with not having enough food to eat in the past 12 months among participants living with HIV**

|  |  |  |
| --- | --- | --- |
|  | Unadjusted PR  (95% CI) | Adjusted PR  (95% CI) |
| Age (years) |  |  |
| 18-24 | Ref | - |
| 25-39 | **1.89 (1.48-2.40)** | **1.40 (1.11-1.78)** |
| 40-49 | **2.04 (1.59-2.61)** | **1.52 (1.19-1.95)** |
| 50+ | **1.92 (1.48-2.49)** | 1.27 (0.98-1.65) |
| Sex |  |  |
| Male | 1.01 (0.91-1.12) | 0.97 (0.88-1.07) |
| Female | Ref | - |
| Study site |  |  |
| Kayunga, Uganda | Ref | - |
| South Rift Valley, Kenya | **1.51 (1.26-1.82)** | **1.82 (1.44-2.30)** |
| Kisumu West, Kenya | **3.52 (2.98-4.17)** | **4.15 (3.28-5.26)** |
| Mbeya, Tanzania | **0.72 (0.56-0.92)** | 0.94 (0.70-1.26) |
| Abuja & Lagos Nigeria | 1.17 (0.91-1.50) | **1.78 (1.32-2.39)** |
| Year enrolled in AFRICOS |  |  |
| 2013 | Ref | - |
| 2014 | 1.12 (0.93-1.35) | **0.76 (0.63-0.93)** |
| 2015 | 1.00 (0.82-1.21) | **0.73 (0.60-0.89)** |
| 2016 | 1.21 (1.00-1.47) | **0.77 (0.63-0.94)** |
| 2017 | **0.74 (0.56-0.98)** | 0.88 (0.66-1.17) |
| 2018 | **0.42 (0.23-0.77)** | 0.56 (0.30-1.03) |
| 2019/2020 | **0.35 (0.19-0.64)** | 0.55 (0.29-1.04) |
| Marital status |  |  |
| Not married | Ref | - |
| Married | **1.19 (1.08-1.32)** | 0.93 (0.84-1.03) |
| Education |  |  |
| None or some primary | Ref | - |
| Primary or some secondary | **0.73 (0.65-0.81)** | **0.80 (0.72-0.89)** |
| Secondary and above | **0.57 (0.50-0.66)** | **0.64 (0.55-0.74)** |
| Employment status |  |  |
| Not employed | Ref | - |
| Employed | **0.70 (0.63-0.78)** | 1.01 (0.87-1.17) |
| Currently a farmer |  |  |
| No | Ref | - |
| Yes | **0.76 (0.62-0.93)** | 1.00 (0.78-1.29) |
| Total no. people in household |  |  |
| <6 | Ref | - |
| >6 | 1.11 (0.99-1.25) | 1.02 (0.90-1.15) |
| No. of dependents |  |  |
| <2 people | Ref | - |
| 2-5 people | **1.67 (1.36-2.05)** | **1.27 (1.04-1.55)** |
| >5 people | **1.95 (1.58-2.41)** | **1.40 (1.13-1.73)** |
| Viral load (copies/mL) |  |  |
| Not on ART | Ref | - |
| On ART, viral load <1000 | **1.31 (1.16-1.47)** | 1.02 (0.90-1.16) |
| On ART, viral load >1000 | 1.01 (0.83-1.23) | 0.87 (0.72-1.05) |
| Highest ever WHO stage |  |  |
| I | Ref | - |
| II | **1.29 (1.12-1.48)** | 0.98 (0.86-1.12) |
| III | **1.31 (1.15-1.50)** | 1.10 (0.96-1.27) |
| IV | 1.08 (0.85-1.37) | 1.07 (0.84-1.36) |
| CD4 count (cells/mm3) |  |  |
| <200 | Ref | - |
| >200 | **1.17 (1.02-1.34)** | 0.94 (0.82-1.07) |

Generalized linear models with a Poisson distribution and robust error variances were used to estimate unadjusted and adjusted prevalence ratios (aPRs) and 95% confidence intervals (CIs) for associations between pre-specified factors of interest and not having enough food to eat in the past 12 months among participants living with HIV. Statistically significant association in bold.

**Supplementary Table 2. Unadjusted and adjusted analyses of factors associated with number of meals per day among participants living with HIV**

|  |  |  |
| --- | --- | --- |
|  | Unadjusted RR  (95% CI) | Adjusted RR  (95% CI) |
| Age (years) |  |  |
| 18-24 | Ref | - |
| 25-39 | **0.97 (0.95-0.99)** | 0.97 (0.95-1.00) |
| 40-49 | **0.96 (0.93-0.98)** | **0.96 (0.93-0.99)** |
| 50+ | **0.94 (0.91-0.96)** | **0.93 (0.90-0.97)** |
| Sex |  |  |
| Male | **0.98 (0.96-1.00)** | **0.98 (0.96-1.00)** |
| Female | Ref | - |
| Study site |  |  |
| Kayunga, Uganda | Ref | - |
| South Rift Valley, Kenya | **1.13 (1.10-1.16)** | **1.07 (1.03-1.11)** |
| Kisumu West, Kenya | **1.10 (1.07-1.13)** | **1.04 (1.00-1.09)** |
| Mbeya, Tanzania | **1.12 (1.09-1.15)** | **1.05 (1.01-1.09)** |
| Abuja & Lagos Nigeria | **1.06 (1.02-1.10)** | 1.01 (0.96-1.05) |
| Year enrolled in AFRICOS |  |  |
| 2013 | Ref | - |
| 2014 | **1.06 (1.02-1.10)** | 1.00 (0.97-1.04) |
| 2015 | **1.05 (1.01-1.08)** | 1.02 (0.98-1.06) |
| 2016 | **1.04 (1.01-1.08)** | 1.00 (0.96-1.04) |
| 2017 | **1.07 (1.03-1.11)** | 1.02 (0.98-1.06) |
| 2018 | **1.07 (1.01-1.14)** | 1.03 (0.97-1.10) |
| 2019/2020 | **1.10 (1.05-1.16)** | 1.01 (0.96-1.07) |
| Marital status |  |  |
| Not married | Ref | - |
| Married | 1.00 (0.98-1.02) | 1.00 (0.98-1.02) |
| Education |  |  |
| None or some primary | Ref | - |
| Primary or some secondary | **1.06 (1.04-1.08)** | **1.04 (1.02-1.06)** |
| Secondary and above | **1.07 (1.05-1.09)** | **1.06 (1.03-1.08)** |
| Employment status |  |  |
| Not employed | Ref | - |
| Employed | **0.93 (0.92-0.95)** | **0.97 (0.95-0.99)** |
| Currently a farmer |  |  |
| No | Ref | - |
| Yes | **0.90 (0.87-0.93)** | 0.98 (0.94-1.02) |
| Total no. people in household |  |  |
| <6 | Ref | - |
| >6 | 0.99 (0.97-1.01) | 1.00 (0.98-1.02) |
| No. of dependents |  |  |
| <2 people | Ref | - |
| 2-5 people | 1.00 (0.97-1.02) | 1.01 (0.99-1.04) |
| >5 people | 1.00 (0.97-1.02) | 1.03 (0.99-1.06) |
| Viral load (copies/mL) |  |  |
| Not on ART | Ref | - |
| On ART, viral load <1000 | **1.06 (1.04-1.08)** | **1.04 (1.02-1.06)** |
| On ART, viral load >1000 | **1.06 (1.03-1.09)** | **1.03 (1.00-1.07)** |
| Highest ever WHO stage |  |  |
| I | Ref | - |
| II | 1.01 (0.99-1.03) | 1.01 (0.98-1.03) |
| III | **1.03 (1.00-1.05)** | 1.02 (1.00-1.04) |
| IV | 1.00 (0.96-1.03) | 0.99 (0.95-1.02) |
| CD4 count (cells/mm3) |  |  |
| <200 | Ref | - |
| >200 | 1.01 (0.99-1.03) | 1.01 (0.98-1.03) |

Poisson regression models were used to estimate unadjusted and adjusted rate ratios (aRRs) for associations between pre-specified factors and the number of meals per day among participants living with HIV. Statistically significant association in bold.

**Supplementary Table 3. Unadjusted and adjusted analyses of factors associated with food insecurity among participants living with HIV**

|  |  |  |
| --- | --- | --- |
|  | Unadjusted PR  (95% CI) | Adjusted PR  (95% CI) |
| Age (years) |  |  |
| 18-24 | Ref | - |
| 25-39 | **1.58 (1.32-1.88)** | **1.31 (1.09-1.57)** |
| 40-49 | **1.65 (1.38-1.98)** | **1.40 (1.16-1.69)** |
| 50+ | **1.71 (1.42-2.06)** | **1.39 (1.14-1.69)** |
| Sex |  |  |
| Male | 1.04 (0.96-1.12) | 1.00 (0.93-1.08) |
| Female | Ref | - |
| Study site |  |  |
| Kayunga, Uganda | Ref | - |
| South Rift Valley, Kenya | **0.83 (0.75-0.93)** | 1.00 (0.86-1.17) |
| Kisumu West, Kenya | **1.55 (1.41-1.70)** | **1.83 (1.56-2.15)** |
| Mbeya, Tanzania | **0.51 (0.44-0.60)** | **0.65 (0.53-0.80)** |
| Abuja & Lagos Nigeria | 0.94 (0.82-1.09) | **1.30 (1.08-1.57)** |
| Year enrolled in AFRICOS |  |  |
| 2013 | Ref | - |
| 2014 | 0.92 (0.81-1.05) | 0.92 (0.79-1.06) |
| 2015 | 0.92 (0.81-1.05) | 0.88 (0.77-1.02) |
| 2016 | 1.00 (0.88-1.14) | 0.95 (0.81-1.10) |
| 2017 | **0.72 (0.58-0.88)** | 0.98 (0.79-1.21) |
| 2018 | **0.53 (0.36-0.78)** | 0.72 (0.49-1.08) |
| 2019/2020 | **0.46 (0.31-0.68)** | 0.82 (0.54-1.23) |
| Marital status |  |  |
| Not married | Ref | - |
| Married | **1.11 (1.03-1.20)** | 0.96 (0.89-1.04) |
| Education |  |  |
| None or some primary | Ref | - |
| Primary or some secondary | **0.71 (0.65-0.77)** | **0.81 (0.75-0.88)** |
| Secondary and above | **0.66 (0.60-0.73)** | **0.73 (0.66-0.82)** |
| Employment status |  |  |
| Not employed | Ref | - |
| Employed | 1.02 (0.95-1.10) | 1.02 (0.91-1.14) |
| Currently a farmer |  |  |
| No | Ref | - |
| Yes | **1.22 (1.09-1.36)** | 1.10 (0.95-1.28) |
| Total no. people in household |  |  |
| <6 | Ref | - |
| >6 | 1.09 (1.00-1.19) | 1.03 (0.94-1.14) |
| No. of dependents |  |  |
| <2 people | Ref | - |
| 2-5 people | **1.39 (1.20-1.60)** | **1.19 (1.03-1.37)** |
| >5 people | **1.50 (1.29-1.74)** | **1.21 (1.03-1.41)** |
| Viral load (copies/mL) |  |  |
| Not on ART | Ref | - |
| On ART, viral load <1000 | 0.97 (0.90-1.05) | **0.90 (0.82-0.99)** |
| On ART, viral load >1000 | **0.84 (0.73-0.98)** | **0.86 (0.74-0.99)** |
| Highest ever WHO stage |  |  |
| I | Ref | - |
| II | 1.08 (0.98-1.19) | 0.95 (0.86-1.05) |
| III | 1.05 (0.95-1.16) | 1.00 (0.90-1.11) |
| IV | 1.05 (0.89-1.23) | 1.12 (0.95-1.33) |
| CD4 count (cells/mm3) |  |  |
| <200 | Ref | - |
| >200 | 1.07 (0.97-1.17) | 0.95 (0.86-1.05) |

Generalized linear models with a Poisson distribution and robust error variances were used to estimate unadjusted and adjusted prevalence ratios (aPRs) and 95% confidence intervals (CIs) for associations between pre-specified factors of interest and food insecurity, defined as a report of not having enough food to eat over the past 12 months or having less than 3 meals per day on average, among participants living with HIV. Statistically significant association in bold.