|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Academic delay (≥ 1 year) or dropout** | |  | **Bivariate analysis** |  | **Main multivariable analysis** | |  | **Sensitivity analyses** | | | | |
|  | **No**  **N=441**  N (%) / Median (IQR) | **Yes**  **N=258**  N (%) / Median (IQR) |  | **Academic delay**  **(≥ 1 year) or dropout** |  | **Academic delay (≥ 1 year) or dropout** | |  | **Academic delay (≥ 2 years) or dropout** | |  | **Age-grade delay** | |
|  |  |  | **ORB (IC95%)** |  | **ORA (IC95%)** | **p-value**† |  | **ORA (IC95%)** | **p-value**† |  | **ORA (IC95%)** | **p-value**† |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Girl |  | 273 (68.8) | 124 (31.2) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| Boy |  | 168 (55.6) | 134 (44.4) |  | 1.76 [1.29-2.40] |  | 1.57 [1.09-2.27] | 0.02 |  | 1.32 [0.90-1.94] | 0.16 |  | 1.62 [1.12-2.37] | 0.01 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age (years) |  | 14.4 (3.5) | 15.1 (3.5) |  | 1.20 [1.10-1.30] |  | 1.21 [1.08-1.35] | <0.001 |  | 1.23 [1.10-1.38] | <0.001 |  | 1.19 [1.07-1.33] | 0.002 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Living circumstances |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| With parents or grandparents |  | 287 (74.2) | 100 (25.8) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| With other family  members |  | 112 (67.5) | 54 (32.5) |  | 1.38 [0.93-2.06] |  | 1.30 [0.85-1.98] | 0.22 |  | 1.12 [0.70-1.79] | 0.63 |  | 1.25 [0.80-1.92] | 0.32 |
| Institution |  | 34 (25.2) | 101 (74.8) |  | 8.52 [5.43-13.4] |  | 9.96 [6.20-16.37] | <0.001 |  | 4.61 [2.94-7.28] | <0.001 |  | 11.31 [7.02-18.7] | <0.001 |
|  |  | *8 NA* | *3 NA* |  |  |  |  |  |  |  |  |  |  |  |
| Previous hospitalizations (reported by the adolescents) | | | |  |  |  |  |  |  |  |  |  |  |  |
| No |  | 192 (68.1) | 90 (31.9) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| Yes |  | 249 (59.9) | 167 (40.1) |  | 1.43 [1.04-1.96] |  | 1.52 [1.05-2.22] | 0.03 |  | 1.30 [0.88-1.94] | 0.19 |  | 1.45 [0.99-2.13] | 0.06 |
|  |  |  | 1 NA |  |  |  |  |  |  |  |  |  |  |  |
| Mental delay |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No |  | 325 (65.0) | 175 (35.0) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| Yes |  | 45 (40.9) | 65 (59.1) |  | 2.76 [1.76-4.09] |  | 3.29 [2.11-5.19] | <0.001 |  | 3.20 [2.03-5.04] | <0.001 |  | 2.67 [1.70-4.22] | <0.001 |
|  |  | *71 NA* | *18 NA* |  |  |  |  |  |  |  |  |  |  |  |
| height-for-age z-score |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≥ -2 |  | 277 (68.4) | 128 (31.6) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| < -2 |  | 162 (57.0) | 122 (43.0) |  | 1.63 [1.19-2.23] |  | 1.81 [1.25-2.62] | 0.001 |  | 1.84 [1.25-2.71] | 0.002 |  | 1.85 [1.27-2.71] | 0.001 |
|  |  | *2 NA* | *8 NA* |  |  |  |  |  |  |  |  |  |  |  |
| Age at ART initiation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < 9 years-old |  | 226 (69.3) | 100 (30.7) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| ≥ 9 years-old |  | 201 (59.8) | 135 (40.2) |  | 1.52 [1.10-2.09] |  | 1.43 [0.93-2.19] | 0.10 |  | 1.04 [0.66-1.64] | 0.86 |  | 1.56 [1.01-2.43] | 0.05 |
|  |  | *14 NA* | *23 NA* |  |  |  |  |  |  |  |  |  |  |  |
| ART type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NNRTI based |  | 333 (66.1) | 171 (33.9) |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |
| PI based (or other) |  | 108 (57.4) | 80 (42.6) |  | 1.44 [1.02-2.03] |  | 1.42 [0.95-2.12] | 0.09 |  | 1.49 [0.98-2.24] | 0.06 |  | 1.52 [1.01-2.28] | 0.05 |
|  |  |  | *7 NA* |  |  |  |  |  |  |  |  |  |  |  |

**Additional file 2. Determinants of school trajectories disruption among ALPHIV living in family settings and institutions: bivariate, multivariable analysis and sensitivity analyses**

: Wald test