**Supplemental Digital Content 2.** Estimates and calculations for HIV prevalence and sample sizes in Ethiopian children.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Entry Point | Assumed Prevalence (p) | 1-p | D =range (one sided) | pq | s = alpha2\*p\*q/ D\*D | Lower CI | Upper CI | | Min. Sample Size\* (accounts for subgroups) |
|  |  |  |  |  |  |  |  | |  |
| Inpatient | 0.05 | 0.95 | 0.03 | 0.0475 | 203 | 0.02 | 0.08 | | 305 |
| Malnutrition | 0.05 | 0.95 | 0.03 | 0.0475 | 203 | 0.02 | 0.08 | | 609 |
| TB Treatment | 0.12 | 0.88 | 0.06 | 0.1056 | 113 | 0.06 | 0.18 | | 170 |
| Family Testing | 0.038 | 0.962 | 0.03 | 0.0366 | 225 | 0.01 | 0.06 | | 338 |
| OVC Program | 0.06 | 0.94 | 0.03 | 0.0564 | 241 | 0.03 | 0.09 | | 723 |
| **TOTAL** |  |  |  |  |  |  |  | | **2145** |
| Level of precision: Alpha = 0.05; Z=1.96. | | | | | | | | |