**Supplemental Digital Content 1. Measles and rubella seroprevalence among HIV-infected and uninfected children in Zambia**

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|  | **HIV-uninfected children** | **HIV-infected treatment-naïve children** | **p-valuea** | **HIV-infected children receiving ART** | **p-valueb** |
| **MEASLES** |  |  |  |  |  |
| **N** | 562 | 143 |  | 128 |  |
| **Positive: >0.2 / Equivocal: 0.1-0.2 / Negative: <0.1c** |  |  |  |  |  |
| % positive (95% CI) | 91.8 (89.4-94.2) | 69.6 (60.9-78.9) |  | 69.3 (59.7-78.9) |  |
| % equivocal (95% CI) | 4.8 (0.0-12.9) | 17.5 (2.6-32.4) | <0.001 | 17.3 (1.5-33.1) | <0.001 |
| Median mIU/mL (IQR) among positives | 2291 (1139-4711) | 1435 (715-2712) | <0.001 | 1303 (665-3627) | 0.002 |
| Median mIU/mL (IQR) among equivocals | 231 (201-304) | 243 (189-275) | 0.77 | 226 (203-273) | 0.67 |
| **Positive: ≥0.1 / Negative: <0.1c** |  |  |  |  |  |
| % positive (95% CI) | 96.6 (95.1-98.1) | 87.4 (81.6-93.2) | <0.001 | 86.6 (80.2-93.0) | <0.001 |
| Median mIU/mL (IQR) among positives | 2165 (1012-4401) | 964 (4340-2064) | <0.001 | 871 (415-2933) | <0.001 |
| **RUBELLA** |  |  |  |  |  |
| **N** | 567 | 144 |  | 127 |  |
| **Positive: >0.2 / Equivocal: 0.1-0.2 / Negative: <0.1c** |  |  |  |  |  |
| % positive (95% CI) | 53.6 (48.0-59.2) | 41.7 (29.2-54.1) |  | 48.0 (35.5-60.6) |  |
| % equivocal (95% CI) | 1.1 (0.0-9.3) | 11.8 (0.0-27 .2) | <0.001 | 8.7 (0.0-25.3) | <0.001 |
| Median IU/mL (IQR) among positives | 240 (174-318) | 95 (51-185) | <0.001 | 153 (84-199) | <0.001 |
| Median IU/mL (IQR) among equivocals | 5 (4-5) | 5 (5-5) | 0.44 | 4 (4-6) | 0.80 |
| **Positive: ≥0.1 / Negative: <0.1c** |  |  |  |  |  |
| % positive (95% CI) | 54.7 (49.1-60.2) | 53.5 (42.3-64.6) | 0.80 | 57 (45-68) | 0.68 |
| Median IU/mL (IQR) among positives | 237 (172-312) | 621 (8-148) | <0.001 | 120 (50-196) | <0.001 |

ART: antiretroviral therapy; CI: confidence interval; HIV: human immunodeficiency virus; IQR: interquartile range; IU/mL: international units per milliliter

a p-value comparing HIV-infected treatment-naïve children with HIV-uninfected children

b p-value comparing HIV-infected children receiving ART with HIV-uninfected children

c Original OD values are used; OD values are not adjusted for volume