**Appendix: Asymptomatic infection and unrecognised Ebola Virus Disease in Ebola-affected households in Sierra Leone: a cross sectional study using a new non-invasive assay for antibodies to Ebola virus**

Judith R Glynn J, PhD, Hilary Bower, MSc, Sembia Johnson, BSc, Catherine F Houlihan, PhD, Carla Montesano, PhD, Janet T Scott, PhD, Malcolm G Semple, PhD, Mohammed S Bangura, Alie Joshua Kamara, Osman Kamara, Saidu H. Mansaray, Daniel Sesay, Cecilia Turay, Steven Dicks, MSc, Raoul E Guetiya Wadoum RE, Msc, Vittorio Colizzi, PhD, Francesco Checchi, PhD, Dhan Samuel, PhD, Richard S Tedder, FRCPath

**Figure 1: Comparison of normalised optical density (OD) in samples tested in duplicate.** (A) Among 97 Kerry Town Survivors; (B) among 34 Ebola survivors from other Ebola Treatment Centres; (C) among 22 symptomatic household contacts; (D) among 112 asymptomatic household contacts; (E) among 26 community controls. Samples that gave discrepant results (reactive/unreactive) are highlighted and the results on subsequent testing are indicated. Samples tested in duplicate were: all those from contacts and controls that were reactive on the first test; all those from survivors that were unreactive on the first test; and a selection of other samples including those closer to the cut-off (see Table 1 in the main text).

**Figure 2: Normalised optical density (OD) results from samples with initially discrepant results, by participant group; and from Kerry Town (KT) survivors with negative results.** The different results from each sample are presented vertically.

**Figure 3. Box plot of normalised optical densities (OD) in samples confirmed seropositive, by participant group.** The mean of all tests per sample was used.



**Figure 4. Distribution of normalised optical density (OD) in samples from survivors (Kerry Town and other Treatment Centres) by time since admission.** The mean of all tests per sample was used.

**Figure 5. Distribution of normalised optical density (OD) in samples from survivors (Kerry Town and other Treatment Centres) by age.** The mean of all tests per sample was used.

**Table 1: Asymptomatic and symptomatic undiagnosed infections as a proportion of all EBOV infections in survivor households**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Died EVD | Survivor | Symptomatic undiagnosed | Asymptomatic infection | All EBOV infections |
|  | n (%) | n (%) | n (%) | n (%) | N |
| Overall | 238 (55.7) | 168 (39.3) | 11 (2.6) | 10 (2.3) | 427 |
| Age group\* |  |  |  |  |  |
| <5 | 36 (67.9) | 13 (24.5) | 4 (7.5) | 0 | 53 |
| 5-14 | 26 (40.6) | 33 (51.6) | 1 (1.6) | 4 (6.3) | 64 |
| ≥15 | 173 (56.4) | 122 (39.7) | 6 (2.0) | 6 (2.0) | 307 |
| Sex |  |  |  |  |  |
| Female | 135 (53.3) | 106 (41.9) | 5 (2.0) | 7 (2.8) | 253 |
| Male | 103 (59.2) | 62 (35.6) | 6 (3.4) | 3 (1.7) | 174 |

\* Age missing for 3