**Supplemental Table. Site differences in neuropsychological test scores adjusted for age and sex**

|  | | | | **F test** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Neuropsychological Test** | **N** | **Site** | **LSMean (95% CI)** | **Site P-value** | | **Age P-value** | | **Sex P-value** | |
| KABC sequential | 604 | Joburg | 92.25 (89.49,95.01) | <0.001 | \* | 0.77 |  | 0.22 |  |
|  |  | Malawi | 76.59 (74.06,79.13) |  |  |  |  |  |  |
|  |  | Soweto | 85.84 (83.52,88.16) |  |  |  |  |  |  |
|  |  | Tygerberg | 82.80 (80.87,84.73) |  |  |  |  |  |  |
|  |  | Uganda | 82.02 (79.60,84.44) |  |  |  |  |  |  |
|  |  | Zimbabwe | 82.24 (80.26,84.23) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC simultaneous | 605 | Joburg | 82.62 (79.74,85.50) | <0.001 | \* | 0.75 |  | 0.91 |  |
|  |  | Malawi | 85.01 (82.36,87.65) |  |  |  |  |  |  |
|  |  | Soweto | 78.52 (76.10,80.94) |  |  |  |  |  |  |
|  |  | Tygerberg | 76.42 (74.41,78.44) |  |  |  |  |  |  |
|  |  | Uganda | 72.41 (69.90,74.92) |  |  |  |  |  |  |
|  |  | Zimbabwe | 74.52 (72.45,76.60) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC learning | 604 | Joburg | 90.34 (86.77,93.90) | <0.001 | \* | 0.41 |  | 0.01 | \* |
|  |  | Malawi | 103.41 (100.14,106.68) |  |  |  |  |  |  |
|  |  | Soweto | 85.40 (82.41,88.40) |  |  |  |  |  |  |
|  |  | Tygerberg | 78.62 (76.12,81.11) |  |  |  |  |  |  |
|  |  | Uganda | 83.63 (80.51,86.75) |  |  |  |  |  |  |
|  |  | Zimbabwe | 83.88 (81.32,86.45) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC planning | 285 | Joburg | 78.38 (74.97,81.79) | 0.01 | \* | <0.001 | \* | 0.11 |  |
|  |  | Malawi | 75.26 (69.89,80.62) |  |  |  |  |  |  |
|  |  | Soweto | 77.49 (74.65,80.32) |  |  |  |  |  |  |
|  |  | Tygerberg | 77.17 (74.31,80.03) |  |  |  |  |  |  |
|  |  | Uganda | 70.49 (66.12,74.86) |  |  |  |  |  |  |
|  |  | Zimbabwe | 72.15 (68.70,75.60) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC delayed recall | 601 | Joburg | 88.87 (85.51,92.24) | <0.001 | \* | 0.87 |  | 0.01 | \* |
|  |  | Malawi | 107.29 (104.20,110.38) |  |  |  |  |  |  |
|  |  | Soweto | 86.19 (83.28,89.10) |  |  |  |  |  |  |
|  |  | Tygerberg | 77.95 (75.61,80.29) |  |  |  |  |  |  |
|  |  | Uganda | 85.22 (82.27,88.17) |  |  |  |  |  |  |
|  |  | Zimbabwe | 84.70 (82.28,87.12) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC nonverbal test index | 607 | Joburg | 82.04 (79.27,84.81) | <0.001 | \* | 0.99 |  | 0.28 |  |
|  |  | Malawi | 79.68 (77.14,82.23) |  |  |  |  |  |  |
|  |  | Soweto | 78.97 (76.64,81.30) |  |  |  |  |  |  |
|  |  | Tygerberg | 75.62 (73.70,77.55) |  |  |  |  |  |  |
|  |  | Uganda | 72.44 (70.03,74.86) |  |  |  |  |  |  |
|  |  | Zimbabwe | 71.15 (69.15,73.14) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC mental processing index | 606 | Joburg | 83.48 (80.87,86.10) | <0.001 | \* | 0.02 | \* | 0.07 |  |
|  |  | Malawi | 84.68 (82.28,87.08) |  |  |  |  |  |  |
|  |  | Soweto | 78.43 (76.23,80.63) |  |  |  |  |  |  |
|  |  | Tygerberg | 74.34 (72.52,76.16) |  |  |  |  |  |  |
|  |  | Uganda | 73.44 (71.15,75.74) |  |  |  |  |  |  |
|  |  | Zimbabwe | 74.04 (72.16,75.93) |  |  |  |  |  |  |
|  | | | | | | | | | |
| BOT-2: total score | 606 | Joburg | 51.22 (49.37,53.08) | <0.001 | \* | 0.16 |  | 0.40 |  |
|  |  | Malawi | 51.62 (49.91,53.32) |  |  |  |  |  |  |
|  |  | Soweto | 53.22 (51.66,54.78) |  |  |  |  |  |  |
|  |  | Tygerberg | 55.58 (54.29,56.88) |  |  |  |  |  |  |
|  |  | Uganda | 46.30 (44.67,47.92) |  |  |  |  |  |  |
|  |  | Zimbabwe | 47.05 (45.71,48.39) |  |  |  |  |  |  |
|  | | | | | | | | | |
| BRIEF BRI | 606 | Joburg | 54.54 (51.75,57.33) | <0.001 | \* | 0.87 |  | 0.02 | \* |
|  |  | Malawi | 51.87 (49.29,54.45) |  |  |  |  |  |  |
|  |  | Soweto | 60.05 (57.69,62.41) |  |  |  |  |  |  |
|  |  | Tygerberg | 48.73 (46.80,50.65) |  |  |  |  |  |  |
|  |  | Uganda | 51.89 (49.44,54.34) |  |  |  |  |  |  |
|  |  | Zimbabwe | 48.70 (46.68,50.71) |  |  |  |  |  |  |
|  | | | | | | | | | |
| BRIEF MI | 606 | Joburg | 51.95 (49.15,54.75) | <0.001 | \* | 0.29 |  | 0.98 |  |
|  |  | Malawi | 53.65 (51.06,56.23) |  |  |  |  |  |  |
|  |  | Soweto | 57.54 (55.17,59.91) |  |  |  |  |  |  |
|  |  | Tygerberg | 46.90 (44.97,48.83) |  |  |  |  |  |  |
|  |  | Uganda | 51.85 (49.40,54.31) |  |  |  |  |  |  |
|  |  | Zimbabwe | 49.39 (47.37,51.40) |  |  |  |  |  |  |
|  | | | | | | | | | |
| BRIEF GEC | 606 | Joburg | 53.12 (50.29,55.95) | <0.001 | \* | 0.38 |  | 0.42 |  |
|  |  | Malawi | 52.72 (50.11,55.34) |  |  |  |  |  |  |
|  |  | Soweto | 59.18 (56.79,61.57) |  |  |  |  |  |  |
|  |  | Tygerberg | 48.45 (46.50,50.40) |  |  |  |  |  |  |
|  |  | Uganda | 52.55 (50.07,55.03) |  |  |  |  |  |  |
|  |  | Zimbabwe | 48.56 (46.52,50.60) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA ADHD | 581 | Joburg | 0.31 (-0.32,0.95) | <0.001 | \* | 0.47 |  | 0.86 |  |
|  |  | Malawi | 0.35 (-0.23,0.94) |  |  |  |  |  |  |
|  |  | Soweto | 2.43 (1.89,2.98) |  |  |  |  |  |  |
|  |  | Tygerberg | -0.79 (-1.26,-0.31) |  |  |  |  |  |  |
|  |  | Uganda | -0.59 (-1.15,-0.02) |  |  |  |  |  |  |
|  |  | Zimbabwe | -0.91 (-1.37,-0.45) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA Response time variability (msec) | 581 | Joburg | 231.79 (217.33,246.25) | 0.002 | \* | <0.001 | \* | 0.42 |  |
|  |  | Malawi | 233.83 (220.50,247.15) |  |  |  |  |  |  |
|  |  | Soweto | 244.65 (232.29,257.01) |  |  |  |  |  |  |
|  |  | Tygerberg | 251.20 (240.43,261.98) |  |  |  |  |  |  |
|  |  | Uganda | 244.72 (231.79,257.66) |  |  |  |  |  |  |
|  |  | Zimbabwe | 264.21 (253.69,274.73) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA Response time (msec) | 581 | Joburg | 625.73 (598.01,653.46) | <0.001 | \* | <0.001 | \* | 0.002 | \* |
|  |  | Malawi | 669.21 (643.67,694.75) |  |  |  |  |  |  |
|  |  | Soweto | 619.14 (595.45,642.83) |  |  |  |  |  |  |
|  |  | Tygerberg | 667.24 (646.59,687.90) |  |  |  |  |  |  |
|  |  | Uganda | 682.26 (657.46,707.06) |  |  |  |  |  |  |
|  |  | Zimbabwe | 692.75 (672.58,712.93) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA Commission (%) | 581 | Joburg | 9.45 (7.97,10.93) | 0.004 | \* | <0.001 | \* | 0.001 | \* |
|  |  | Malawi | 9.78 (8.41,11.15) |  |  |  |  |  |  |
|  |  | Soweto | 10.38 (9.11,11.65) |  |  |  |  |  |  |
|  |  | Tygerberg | 8.38 (7.27,9.48) |  |  |  |  |  |  |
|  |  | Uganda | 8.10 (6.78,9.43) |  |  |  |  |  |  |
|  |  | Zimbabwe | 10.96 (9.88,12.04) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA Omission (%) | 581 | Joburg | 11.61 (8.04,15.17) | <0.001 | \* | <0.001 | \* | 0.82 |  |
|  |  | Malawi | 6.76 (3.47,10.04) |  |  |  |  |  |  |
|  |  | Soweto | 16.17 (13.12,19.21) |  |  |  |  |  |  |
|  |  | Tygerberg | 18.68 (16.02,21.33) |  |  |  |  |  |  |
|  |  | Uganda | 14.74 (11.55,17.93) |  |  |  |  |  |  |
|  |  | Zimbabwe | 19.23 (16.63,21.82) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA D Prime | 581 | Joburg | 2.98 (2.79,3.18) | <0.001 | \* | <0.001 | \* | 0.01 | \* |
|  |  | Malawi | 2.92 (2.73,3.10) |  |  |  |  |  |  |
|  |  | Soweto | 2.62 (2.45,2.80) |  |  |  |  |  |  |
|  |  | Tygerberg | 2.61 (2.46,2.76) |  |  |  |  |  |  |
|  |  | Uganda | 2.77 (2.59,2.95) |  |  |  |  |  |  |
|  |  | Zimbabwe | 2.50 (2.35,2.64) |  |  |  |  |  |  |
|  | | | | | | | | | |
| TOVA D Prime standard score | 581 | Joburg | 90.29 (87.22,93.36) | <0.001 | \* | 0.43 |  | 0.02 | \* |
|  |  | Malawi | 89.70 (86.87,92.52) |  |  |  |  |  |  |
|  |  | Soweto | 84.97 (82.35,87.59) |  |  |  |  |  |  |
|  |  | Tygerberg | 85.25 (82.96,87.54) |  |  |  |  |  |  |
|  |  | Uganda | 87.42 (84.67,90.16) |  |  |  |  |  |  |
|  |  | Zimbabwe | 81.63 (79.40,83.86) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC Conceptual thinking raw score | 607 | Joburg | 13.16 (12.09,14.24) | <0.001 | \* | <0.001 | \* | 0.11 |  |
|  |  | Malawi | 14.32 (13.33,15.31) |  |  |  |  |  |  |
|  |  | Soweto | 12.80 (11.89,13.70) |  |  |  |  |  |  |
|  |  | Tygerberg | 11.48 (10.74,12.23) |  |  |  |  |  |  |
|  |  | Uganda | 11.78 (10.84,12.72) |  |  |  |  |  |  |
|  |  | Zimbabwe | 10.34 (9.57,11.12) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC Story completion raw score | 607 | Joburg | 6.08 (5.28,6.87) | <0.001 | \* | <0.001 | \* | 0.18 |  |
|  |  | Malawi | 6.15 (5.42,6.88) |  |  |  |  |  |  |
|  |  | Soweto | 5.20 (4.53,5.87) |  |  |  |  |  |  |
|  |  | Tygerberg | 4.57 (4.02,5.13) |  |  |  |  |  |  |
|  |  | Uganda | 4.36 (3.67,5.05) |  |  |  |  |  |  |
|  |  | Zimbabwe | 4.77 (4.20,5.34) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC Pattern reasoning raw score | 607 | Joburg | 6.60 (5.76,7.43) | <0.001 | \* | <0.001 | \* | 0.08 |  |
|  |  | Malawi | 6.98 (6.21,7.74) |  |  |  |  |  |  |
|  |  | Soweto | 6.33 (5.63,7.03) |  |  |  |  |  |  |
|  |  | Tygerberg | 5.30 (4.72,5.88) |  |  |  |  |  |  |
|  |  | Uganda | 4.10 (3.37,4.83) |  |  |  |  |  |  |
|  |  | Zimbabwe | 4.55 (3.95,5.14) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC Face recognition raw score | 607 | Joburg | 12.80 (11.96,13.64) | <0.001 | \* | <0.001 | \* | 0.003 | \* |
|  |  | Malawi | 9.08 (8.31,9.85) |  |  |  |  |  |  |
|  |  | Soweto | 12.08 (11.37,12.78) |  |  |  |  |  |  |
|  |  | Tygerberg | 11.78 (11.20,12.36) |  |  |  |  |  |  |
|  |  | Uganda | 10.72 (9.99,11.45) |  |  |  |  |  |  |
|  |  | Zimbabwe | 10.10 (9.50,10.71) |  |  |  |  |  |  |
|  | | | | | | | | | |
| KABC Hand movements raw score | 607 | Joburg | 7.46 (6.91,8.01) | 0.001 | \* | <0.001 | \* | 0.14 |  |
|  |  | Malawi | 6.45 (5.95,6.95) |  |  |  |  |  |  |
|  |  | Soweto | 7.43 (6.97,7.90) |  |  |  |  |  |  |
|  |  | Tygerberg | 6.47 (6.09,6.85) |  |  |  |  |  |  |
|  |  | Uganda | 6.60 (6.12,7.08) |  |  |  |  |  |  |
|  |  | Zimbabwe | 6.39 (6.00,6.79) |  |  |  |  |  |  |
|  | | | | | | | | | |
| HSCL Anxiety | 610 | Joburg | 0.80 (0.66,0.94) | <0.001 | \* | 0.89 |  | 0.28 |  |
|  |  | Malawi | 0.42 (0.29,0.54) |  |  |  |  |  |  |
|  |  | Soweto | 0.82 (0.71,0.94) |  |  |  |  |  |  |
|  |  | Tygerberg | 0.71 (0.62,0.81) |  |  |  |  |  |  |
|  |  | Uganda | 0.61 (0.48,0.73) |  |  |  |  |  |  |
|  |  | Zimbabwe | 0.47 (0.37,0.57) |  |  |  |  |  |  |
|  | | | | | | | | | |
| HSCL Depression | 610 | Joburg | 1.12 (0.98,1.26) | <0.001 | \* | 0.75 |  | 0.73 |  |
|  |  | Malawi | 0.38 (0.25,0.50) |  |  |  |  |  |  |
|  |  | Soweto | 1.12 (1.00,1.23) |  |  |  |  |  |  |
|  |  | Tygerberg | 0.94 (0.85,1.04) |  |  |  |  |  |  |
|  |  | Uganda | 0.53 (0.41,0.65) |  |  |  |  |  |  |
|  |  | Zimbabwe | 0.58 (0.48,0.68) |  |  |  |  |  |  |
|  | | | | | | | | | |
| MICS Disability (%) | 611 | Joburg | 3.57 (1.38,5.77) | <0.001 | \* | 0.37 |  | 0.91 |  |
|  |  | Malawi | 5.47 (3.45,7.48) |  |  |  |  |  |  |
|  |  | Soweto | 4.72 (2.89,6.55) |  |  |  |  |  |  |
|  |  | Tygerberg | 4.24 (2.73,5.76) |  |  |  |  |  |  |
|  |  | Uganda | 10.69 (8.77,12.60) |  |  |  |  |  |  |
|  |  | Zimbabwe | 5.85 (4.27,7.43) |  |  |  |  |  |  |
|  | | | | | | | | | |
| MICS Development (%) | 611 | Joburg | 75.45 (72.36,78.55) | <0.001 | \* | 0.01 | \* | 0.03 | \* |
|  |  | Malawi | 51.14 (48.30,53.99) |  |  |  |  |  |  |
|  |  | Soweto | 83.34 (80.77,85.92) |  |  |  |  |  |  |
|  |  | Tygerberg | 86.03 (83.89,88.16) |  |  |  |  |  |  |
|  |  | Uganda | 69.87 (67.17,72.57) |  |  |  |  |  |  |
|  |  | Zimbabwe | 73.34 (71.11,75.57) |  |  |  |  |  |  |
|  | | | | | | | | | |

*\* - P-value < 0.05*