Table :

| X1 | Bangladesh | Kenya |
| --- | --- | --- |
| n | 1761 | 1893 |
| tr (%) |  |  |
| Control | 432 (24.5) | 519 (27.9) |
| Nutrition | 435 (24.7) | 435 (23.4) |
| Nutrition + WSH | 451 (25.6) | 450 (24.2) |
| WSH | 443 (25.2) | 456 (24.5) |
| laz\_t1 (median [IQR]) | -1.29 [-1.99, -0.58] | -0.78 [-1.47, -0.08] |
| waz\_t1 (median [IQR]) | -1.21 [-1.86, -0.57] | -0.26 [-1.01, 0.39] |
| laz\_t2 (median [IQR]) | -1.39 [-2.07, -0.75] | -1.27 [-1.99, -0.55] |
| waz\_t2 (median [IQR]) | -1.31 [-2.00, -0.63] | -0.62 [-1.29, 0.03] |
| cesd\_sum\_t2 (median [IQR]) | 24.00 [8.00, 47.00] | NA [NA, NA] |
| cesd\_sum\_ee\_t3 (median [IQR]) | 24.00 [7.00, 54.00] | NA [NA, NA] |
| pss\_sum\_mom\_t3 (median [IQR]) | 12.00 [7.00, 32.00] | NA [NA, NA] |
| quantile\_phq (median [IQR]) | NA [NA, NA] | 2.00 [1.00, 3.00] |
| quantile\_pss (median [IQR]) | NA [NA, NA] | 2.00 [1.00, 3.00] |
| sex (%) |  |  |
| female | 871 (49.5) | 894 (47.2) |
| male | 890 (50.5) | 946 (50.0) |
| missing | 0 (0.0) | 53 (2.8) |
| life\_viol\_any\_t3 = 1 (%) | 836 (57.1) | 0 (NaN) |
| birthord (%) |  |  |
| first | 597 (33.9) | 1488 (78.6) |
| missing | 109 (6.2) | 2 (0.1) |
| second or greater | 1055 (59.9) | 403 (21.3) |
| momage (median [IQR]) | 23.00 [20.00, 27.00] | 25.42 [21.29, 30.00] |
| momheight (%) |  |  |
| [-1,0) | 591 (33.6) | 590 (31.2) |
| [-2,-1) | 232 (13.2) | 241 (12.7) |
| [-4.46,-2) | 36 (2.0) | 0 (0.0) |
| [0,1) | 570 (32.4) | 597 (31.5) |
| [1,2) | 253 (14.4) | 243 (12.8) |
| [2,3.29] | 28 (1.6) | 0 (0.0) |
| missing | 51 (2.9) | 144 (7.6) |
| [-3.5,-2) | 0 (0.0) | 37 (2.0) |
| [2,3.19] | 0 (0.0) | 41 (2.2) |
| momedu (%) |  |  |
| No education | 248 (14.1) | 0 (0.0) |
| Primary (1-5y) | 498 (28.3) | 0 (0.0) |
| Secondary (>5y) | 1015 (57.6) | 0 (0.0) |
| AnySecondary | 0 (0.0) | 413 (21.8) |
| IncompletePrimary | 0 (0.0) | 990 (52.3) |
| missing | 0 (0.0) | 55 (2.9) |
| Primary | 0 (0.0) | 435 (23.0) |
| hfiacat (%) |  |  |
| Food Secure | 1244 (70.6) | 0 (NaN) |
| Mildly Food Insecure | 147 (8.3) | 0 (NaN) |
| Moderately Food Insecure | 310 (17.6) | 0 (NaN) |
| Severely Food Insecure | 60 (3.4) | 0 (NaN) |
| Nlt18 (median [IQR]) | 1.00 [1.00, 2.00] | 3.00 [1.00, 4.00] |
| Ncomp (median [IQR]) | 9.00 [6.00, 14.00] | 7.00 [5.00, 11.00] |
| watmin (median [IQR]) | 0.00 [0.00, 1.00] | NA [NA, NA] |
| walls = 1 (%) | 1137 (64.6) | 0 (NaN) |
| floor (%) |  |  |
| 0 | 1532 (87.0) | 1747 (92.3) |
| 1 | 229 (13.0) | 91 (4.8) |
| 9 | 0 (0.0) | 2 (0.1) |
| missing | 0 (0.0) | 53 (2.8) |
| roof (%) |  |  |
| 0 | 22 (1.2) | 706 (37.3) |
| 1 | 1739 (98.8) | 1134 (59.9) |
| missing | 0 (0.0) | 53 (2.8) |
| hh\_index (median [IQR]) | 3.28 [1.00, 8.99] | -0.38 [-1.04, 0.62] |

Table : Communicative Development Inventories (Bangladesh)

| Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Understanding | alpha-1 antitrypsin | 1 | 797 | 0.23 | 0.80 | 0.02(-0.02,0.05) | 0.38 | 0.48 | 1 |
| Expressing | alpha-1 antitrypsin | 1 | 793 | 0.23 | 0.80 | 0.01(-0.03,0.05) | 0.62 | 0.69 | 1 |
| Understanding | myeloperoxidase | 1 | 799 | 4,198.28 | 19,174.39 | -0.08(-0.3,0.14) | 0.47 | 0.56 | 1 |
| Expressing | myeloperoxidase | 1 | 795 | 4,244.68 | 19,500.99 | 0.04(-0.02,0.1) | 0.19 | 0.29 | 1 |
| **Understanding** | **neopterin** | **1** | **800** | **896.65** | **2,320.84** | **0.3(0.11,0.49)** | **0\*** | **0.02\*** | **1** |
| Expressing | neopterin | 1 | 796 | 896.65 | 2,320.84 | 0.12(-0.08,0.33) | 0.25 | 0.36 | 1 |
| **Understanding** | **lactulose concentration** | **1** | **979** | **-1.56** | **-0.01** | **-0.16(-0.3,-0.01)** | **0.03\*** | **0.15** | **1** |
| **Expressing** | **lactulose concentration** | **1** | **976** | **-1.56** | **-0.01** | **-0.17(-0.33,-0.01)** | **0.04\*** | **0.15** | **1** |
| Understanding | mannitol concentration | 1 | 979 | 0.67 | 2.11 | -0.12(-0.25,0.01) | 0.07 | 0.15 | 1 |
| Expressing | mannitol concentration | 1 | 976 | 0.67 | 2.12 | -0.11(-0.27,0.04) | 0.16 | 0.26 | 1 |
| Understanding | alpha-1 antitrypsin | 1 | 701 | 0.23 | 0.81 | 0.00031(-0.0322,0.03282) | 0.99 | 0.99 | 2 |
| Expressing | alpha-1 antitrypsin | 1 | 707 | 0.23 | 0.81 | 0.01326(-0.02158,0.0481) | 0.46 | 0.87 | 2 |
| Understanding | myeloperoxidase | 1 | 702 | 4,348.29 | 20,129.58 | 0.09959(-0.10498,0.30416) | 0.35 | 0.87 | 2 |
| Expressing | myeloperoxidase | 1 | 708 | 4,301.33 | 19,890.26 | 0.17803(-0.054,0.41005) | 0.13 | 0.87 | 2 |
| Understanding | neopterin | 1 | 703 | 920.02 | 2,343.03 | 0.0324(-0.04404,0.10885) | 0.41 | 0.87 | 2 |
| Expressing | neopterin | 1 | 709 | 917.40 | 2,332.48 | 0.06487(-0.04293,0.17267) | 0.24 | 0.87 | 2 |
| Understanding | lactulose concentration | 1 | 870 | -1.56 | -0.03 | 0.07368(-0.13952,0.28688) | 0.51 | 0.87 | 2 |
| Expressing | lactulose concentration | 1 | 878 | -1.56 | -0.03 | 0.1162(-0.09917,0.33156) | 0.29 | 0.87 | 2 |
| Understanding | mannitol concentration | 1 | 870 | 0.69 | 2.10 | 0.034(-0.15139,0.21939) | 0.73 | 0.92 | 2 |
| Expressing | mannitol concentration | 1 | 878 | 0.69 | 2.10 | -0.01037(-0.20929,0.18856) | 0.93 | 0.99 | 2 |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | |

Table : Bangladesh Analyses

| Outcome Domain | Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| WHO Motor Milestone | Sum Total | alpha-1 antitrypsin | 1 | 806 | 0.23 | 0.79 | 0.03(-0.17,0.22) | 0.8 | 0.84 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | alpha-1 antitrypsin | 1 | 806 | 0.23 | 0.79 | 0(-0.17,0.16) | 0.96 | 0.96 | 1 |
| WHO Motor Milestone | Sum Total | myeloperoxidase | 1 | 808 | 4,202.48 | 19,091.30 | 0.05(-0.02,0.13) | 0.16 | 0.26 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | myeloperoxidase | 1 | 808 | 4,202.48 | 19,091.30 | 0.06(0,0.12) | 0.07 | 0.15 | 1 |
| WHO Motor Milestone | Sum Total | neopterin | 1 | 809 | 904.58 | 2,331.48 | 0.1(-0.09,0.28) | 0.31 | 0.41 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | neopterin | 1 | 809 | 904.58 | 2,331.48 | 0.12(-0.04,0.28) | 0.15 | 0.26 | 1 |
| **WHO Motor Milestone** | **Sum Total** | **lactulose concentration** | **1** | **984** | **-1.55** | **-0.01** | **-0.25(-0.49,-0.01)** | **0.04\*** | **0.15** | **1** |
| **WHO Motor Milestone** | **Milestones 2, 4, 5, 6** | **lactulose concentration** | **1** | **991** | **-1.56** | **-0.02** | **-0.11(-0.21,0)** | **0.04\*** | **0.15** | **1** |
| **WHO Motor Milestone** | **Sum Total** | **mannitol concentration** | **1** | **984** | **0.68** | **2.12** | **-0.23(-0.36,-0.09)** | **0\*** | **0.02\*** | **1** |
| **WHO Motor Milestone** | **Milestones 2, 4, 5, 6** | **mannitol concentration** | **1** | **991** | **0.68** | **2.11** | **-0.1(-0.2,0)** | **0.05\*** | **0.15** | **1** |
| Communicative Development Inventories | Understanding | alpha-1 antitrypsin | 1 | 797 | 0.23 | 0.80 | 0.02(-0.02,0.05) | 0.38 | 0.48 | 1 |
| Communicative Development Inventories | Expressing | alpha-1 antitrypsin | 1 | 793 | 0.23 | 0.80 | 0.01(-0.03,0.05) | 0.62 | 0.69 | 1 |
| Communicative Development Inventories | Understanding | myeloperoxidase | 1 | 799 | 4,198.28 | 19,174.39 | -0.08(-0.3,0.14) | 0.47 | 0.56 | 1 |
| Communicative Development Inventories | Expressing | myeloperoxidase | 1 | 795 | 4,244.68 | 19,500.99 | 0.04(-0.02,0.1) | 0.19 | 0.29 | 1 |
| **Communicative Development Inventories** | **Understanding** | **neopterin** | **1** | **800** | **896.65** | **2,320.84** | **0.3(0.11,0.49)** | **0\*** | **0.02\*** | **1** |
| Communicative Development Inventories | Expressing | neopterin | 1 | 796 | 896.65 | 2,320.84 | 0.12(-0.08,0.33) | 0.25 | 0.36 | 1 |
| **Communicative Development Inventories** | **Understanding** | **lactulose concentration** | **1** | **979** | **-1.56** | **-0.01** | **-0.16(-0.3,-0.01)** | **0.03\*** | **0.15** | **1** |
| **Communicative Development Inventories** | **Expressing** | **lactulose concentration** | **1** | **976** | **-1.56** | **-0.01** | **-0.17(-0.33,-0.01)** | **0.04\*** | **0.15** | **1** |
| Communicative Development Inventories | Understanding | mannitol concentration | 1 | 979 | 0.67 | 2.11 | -0.12(-0.25,0.01) | 0.07 | 0.15 | 1 |
| Communicative Development Inventories | Expressing | mannitol concentration | 1 | 976 | 0.67 | 2.12 | -0.11(-0.27,0.04) | 0.16 | 0.26 | 1 |
| Extended Ages and Stages Questionnaire | Personal Social Score | alpha-1 antitrypsin | 1 | 697 | 0.23 | 0.81 | 0.00406(-0.18744,0.19556) | 0.97 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | alpha-1 antitrypsin | 1 | 693 | 0.24 | 0.81 | -0.01103(-0.05202,0.02996) | 0.61 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 1 | 697 | 0.23 | 0.81 | -0.01226(-0.08427,0.05975) | 0.75 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 1 | 697 | 0.23 | 0.81 | -0.00458(-0.07521,0.06606) | 0.91 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | myeloperoxidase | 1 | 698 | 4,348.29 | 20,129.58 | -0.03962(-0.13633,0.0571) | 0.43 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | myeloperoxidase | 1 | 694 | 4,483.27 | 20,212.15 | 0.00285(-0.02265,0.02834) | 0.84 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 1 | 698 | 4,348.29 | 20,129.58 | -0.01174(-0.08582,0.06235) | 0.77 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 1 | 698 | 4,348.29 | 20,129.58 | 0.00741(-0.21574,0.23055) | 0.95 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | neopterin | 1 | 699 | 921.03 | 2,356.46 | 0.04653(-0.0439,0.13696) | 0.32 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | neopterin | 1 | 695 | 921.03 | 2,343.03 | 0.10362(-0.06827,0.27551) | 0.24 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 1 | 699 | 921.03 | 2,356.46 | 0.14384(-0.0219,0.30959) | 0.09 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 1 | 699 | 921.03 | 2,356.46 | 0.12001(-0.05079,0.29082) | 0.17 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | lactulose concentration | 1 | 867 | -1.57 | -0.03 | 0.06013(-0.18181,0.30207) | 0.64 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | lactulose concentration | 1 | 862 | -1.56 | -0.03 | 0.122(-0.0088,0.2528) | 0.07 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | lactulose concentration | 1 | 867 | -1.57 | -0.03 | 0.04167(-0.05894,0.14227) | 0.42 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | lactulose concentration | 1 | 867 | -1.57 | -0.03 | 0.03498(-0.06316,0.13312) | 0.49 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | mannitol concentration | 1 | 867 | 0.69 | 2.11 | -0.02242(-0.14262,0.09779) | 0.73 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | mannitol concentration | 1 | 862 | 0.69 | 2.12 | 0.08103(-0.05002,0.21209) | 0.23 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | mannitol concentration | 1 | 867 | 0.69 | 2.11 | 0.04662(-0.07971,0.17296) | 0.48 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | mannitol concentration | 1 | 867 | 0.69 | 2.11 | 0.04415(-0.06333,0.15163) | 0.43 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | alpha-1 antitrypsin | 1 | 701 | 0.23 | 0.81 | 0.00031(-0.0322,0.03282) | 0.99 | 0.99 | 2 |
| Communicative Development Inventories | Expressing | alpha-1 antitrypsin | 1 | 707 | 0.23 | 0.81 | 0.01326(-0.02158,0.0481) | 0.46 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | myeloperoxidase | 1 | 702 | 4,348.29 | 20,129.58 | 0.09959(-0.10498,0.30416) | 0.35 | 0.87 | 2 |
| Communicative Development Inventories | Expressing | myeloperoxidase | 1 | 708 | 4,301.33 | 19,890.26 | 0.17803(-0.054,0.41005) | 0.13 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | neopterin | 1 | 703 | 920.02 | 2,343.03 | 0.0324(-0.04404,0.10885) | 0.41 | 0.87 | 2 |
| Communicative Development Inventories | Expressing | neopterin | 1 | 709 | 917.40 | 2,332.48 | 0.06487(-0.04293,0.17267) | 0.24 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | lactulose concentration | 1 | 870 | -1.56 | -0.03 | 0.07368(-0.13952,0.28688) | 0.51 | 0.87 | 2 |
| Communicative Development Inventories | Expressing | lactulose concentration | 1 | 878 | -1.56 | -0.03 | 0.1162(-0.09917,0.33156) | 0.29 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | mannitol concentration | 1 | 870 | 0.69 | 2.10 | 0.034(-0.15139,0.21939) | 0.73 | 0.92 | 2 |
| Communicative Development Inventories | Expressing | mannitol concentration | 1 | 878 | 0.69 | 2.10 | -0.01037(-0.20929,0.18856) | 0.93 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | alpha-1 antitrypsin | 2 | 862 | 0.25 | 0.89 | 0.01206(-0.0618,0.08592) | 0.76 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | alpha-1 antitrypsin | 2 | 857 | 0.25 | 0.89 | -0.01695(-0.08785,0.05395) | 0.65 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 2 | 862 | 0.25 | 0.89 | -0.01176(-0.17605,0.15253) | 0.9 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 2 | 862 | 0.25 | 0.89 | 0.0109(-0.05568,0.07747) | 0.76 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | myeloperoxidase | 2 | 862 | 2,789.71 | 10,421.13 | 0.0011(-0.05085,0.05305) | 0.97 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | myeloperoxidase | 2 | 857 | 2,787.01 | 10,366.81 | -0.02566(-0.07538,0.02406) | 0.32 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 2 | 862 | 2,789.71 | 10,421.13 | -0.01737(-0.06678,0.03203) | 0.5 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 2 | 862 | 2,789.71 | 10,421.13 | -0.0105(-0.05759,0.03659) | 0.68 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | neopterin | 2 | 862 | 640.99 | 2,027.89 | 0.02278(-0.05923,0.10478) | 0.6 | 0.92 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | neopterin | 2 | 857 | 639.82 | 2,028.79 | -0.07298(-0.19456,0.0486) | 0.24 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 2 | 862 | 640.99 | 2,027.89 | 0.02938(-0.05324,0.112) | 0.5 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 2 | 862 | 640.99 | 2,027.89 | 0.0541(-0.00519,0.11339) | 0.07 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | alpha-1 antitrypsin | 2 | 865 | 0.25 | 0.89 | 0.04569(-0.0581,0.14948) | 0.4 | 0.87 | 2 |
| **Communicative Development Inventories** | **Expressing** | **alpha-1 antitrypsin** | **2** | **874** | **0.26** | **0.89** | **-0.00109(-0.00208,-1e-04)** | **0.03\*** | **0.87** | **2** |
| Communicative Development Inventories | Understanding | myeloperoxidase | 2 | 865 | 2,764.79 | 10,439.24 | -0.01327(-0.05888,0.03235) | 0.58 | 0.92 | 2 |
| Communicative Development Inventories | Expressing | myeloperoxidase | 2 | 874 | 2,789.71 | 10,421.13 | -0.01675(-0.0561,0.0226) | 0.41 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | neopterin | 2 | 865 | 648.77 | 2,028.79 | 0.0338(-0.02136,0.08895) | 0.23 | 0.87 | 2 |
| Communicative Development Inventories | Expressing | neopterin | 2 | 874 | 649.32 | 2,027.89 | -0.03447(-0.13449,0.06555) | 0.51 | 0.87 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | regenerating gene 1-beta | 2 | 860 | 101.80 | 234.69 | 0(-0.06,0.06) | 0.97 | 0.97 | 3 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | regenerating gene 1-beta | 2 | 855 | 101.68 | 234.33 | -0.01(-0.12,0.09) | 0.8 | 0.96 | 3 |
| Extended Ages and Stages Questionnaire | Combined | regenerating gene 1-beta | 2 | 860 | 101.80 | 234.69 | -0.01(-0.07,0.05) | 0.78 | 0.96 | 3 |
| Extended Ages and Stages Questionnaire | Combined | regenerating gene 1-beta | 2 | 860 | 101.80 | 234.69 | 0.02(-0.03,0.08) | 0.43 | 0.96 | 3 |
| Communicative Development Inventories | Understanding | regenerating gene 1-beta | 2 | 863 | 102.21 | 234.33 | 0.02(-0.04,0.07) | 0.55 | 0.96 | 3 |
| Communicative Development Inventories | Expressing | regenerating gene 1-beta | 2 | 872 | 102.46 | 234.69 | -0.04(-0.15,0.06) | 0.4 | 0.96 | 3 |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | | |

Table : WHO Motor Milestones (Bangladesh)

| Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sum Total | alpha-1 antitrypsin | 1 | 806 | 0.23 | 0.79 | 0.03(-0.17,0.22) | 0.8 | 0.84 | 1 |
| Milestones 2, 4, 5, 6 | alpha-1 antitrypsin | 1 | 806 | 0.23 | 0.79 | 0(-0.17,0.16) | 0.96 | 0.96 | 1 |
| Sum Total | myeloperoxidase | 1 | 808 | 4,202.48 | 19,091.30 | 0.05(-0.02,0.13) | 0.16 | 0.26 | 1 |
| Milestones 2, 4, 5, 6 | myeloperoxidase | 1 | 808 | 4,202.48 | 19,091.30 | 0.06(0,0.12) | 0.07 | 0.15 | 1 |
| Sum Total | neopterin | 1 | 809 | 904.58 | 2,331.48 | 0.1(-0.09,0.28) | 0.31 | 0.41 | 1 |
| Milestones 2, 4, 5, 6 | neopterin | 1 | 809 | 904.58 | 2,331.48 | 0.12(-0.04,0.28) | 0.15 | 0.26 | 1 |
| **Sum Total** | **lactulose concentration** | **1** | **984** | **-1.55** | **-0.01** | **-0.25(-0.49,-0.01)** | **0.04\*** | **0.15** | **1** |
| **Milestones 2, 4, 5, 6** | **lactulose concentration** | **1** | **991** | **-1.56** | **-0.02** | **-0.11(-0.21,0)** | **0.04\*** | **0.15** | **1** |
| **Sum Total** | **mannitol concentration** | **1** | **984** | **0.68** | **2.12** | **-0.23(-0.36,-0.09)** | **0\*** | **0.02\*** | **1** |
| **Milestones 2, 4, 5, 6** | **mannitol concentration** | **1** | **991** | **0.68** | **2.11** | **-0.1(-0.2,0)** | **0.05\*** | **0.15** | **1** |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | |

Table : Extended Ages and Stages Questionnaire (Kenya)

| Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Communication Score** | **alpha-1 antitrypsin** | **1** | **796** | **0.28** | **0.99** | **0.1(0,0.19)** | **0.05\*** | **0.8** | **5** |
| Gross Motor Score | alpha-1 antitrypsin | 1 | 816 | 0.28 | 0.98 | 0(-0.06,0.05) | 0.88 | 0.96 | 5 |
| Personal Social Score | alpha-1 antitrypsin | 1 | 818 | 0.28 | 0.98 | 0.03(-0.03,0.08) | 0.36 | 0.93 | 5 |
| Combined | alpha-1 antitrypsin | 1 | 796 | 0.28 | 0.99 | 0.04(-0.03,0.11) | 0.3 | 0.93 | 5 |
| Communication Score | lactulose concentration | 1 | 861 | -2.25 | -0.85 | 0.11(-0.07,0.28) | 0.24 | 0.82 | 5 |
| Gross Motor Score | lactulose concentration | 1 | 862 | -2.25 | -0.85 | -0.05(-0.13,0.03) | 0.23 | 0.82 | 5 |
| Personal Social Score | lactulose concentration | 1 | 865 | -2.25 | -0.85 | 0.07(-0.01,0.16) | 0.1 | 0.8 | 5 |
| Combined | lactulose concentration | 1 | 861 | -2.25 | -0.85 | 0.06(-0.09,0.2) | 0.48 | 0.93 | 5 |
| Communication Score | mannitol concentration | 1 | 861 | -0.05 | 1.31 | 0.06(-0.02,0.14) | 0.15 | 0.82 | 5 |
| Gross Motor Score | mannitol concentration | 1 | 862 | -0.05 | 1.31 | 0(-0.08,0.08) | 0.96 | 0.96 | 5 |
| **Personal Social Score** | **mannitol concentration** | **1** | **865** | **-0.05** | **1.31** | **0.13(0.03,0.23)** | **0.01\*** | **0.46** | **5** |
| Combined | mannitol concentration | 1 | 861 | -0.05 | 1.31 | 0.05(-0.03,0.13) | 0.19 | 0.82 | 5 |
| Communication Score | alpha-1 antitrypsin | 1 | 812 | 0.28 | 0.96 | 0.08(-0.01,0.17) | 0.09 | 0.8 | 5 |
| Gross Motor Score | alpha-1 antitrypsin | 1 | 719 | 0.28 | 0.93 | 0(-0.06,0.06) | 0.95 | 0.96 | 5 |
| Personal Social Score | alpha-1 antitrypsin | 1 | 814 | 0.28 | 0.97 | 0.02(-0.03,0.08) | 0.43 | 0.93 | 5 |
| Combined | alpha-1 antitrypsin | 1 | 694 | 0.28 | 0.93 | 0.03(-0.09,0.14) | 0.69 | 0.93 | 5 |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | |

Table : Kenya Analyses

| Outcome Domain | Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | alpha-1 antitrypsin | 1 | 1,025 | 0.27 | 0.95 | 0.01(-0.03,0.05) | 0.64 | 0.71 | 4 |
| WHO Motor Milestone | Sum Total | alpha-1 antitrypsin | 1 | 1,025 | 0.27 | 0.95 | -0.01(-0.06,0.04) | 0.71 | 0.71 | 4 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | myeloperoxidase | 1 | 1,026 | 1,651.31 | 7,324.34 | 0.09(-0.06,0.24) | 0.22 | 0.28 | 4 |
| WHO Motor Milestone | Sum Total | myeloperoxidase | 1 | 1,026 | 1,651.31 | 7,324.34 | 0.11(-0.06,0.28) | 0.21 | 0.28 | 4 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | neopterin | 1 | 1,027 | 1,219.52 | 2,878.24 | 0.08(-0.01,0.16) | 0.07 | 0.22 | 4 |
| WHO Motor Milestone | Sum Total | neopterin | 1 | 1,027 | 1,219.52 | 2,878.24 | 0.08(-0.01,0.17) | 0.09 | 0.22 | 4 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | lactulose concentration | 1 | 1,083 | -2.24 | -0.85 | 0.05(-0.01,0.12) | 0.12 | 0.24 | 4 |
| WHO Motor Milestone | Sum Total | lactulose concentration | 1 | 1,083 | -2.24 | -0.85 | 0.05(-0.02,0.12) | 0.18 | 0.28 | 4 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | mannitol concentration | 1 | 1,083 | -0.06 | 1.29 | 0.06(-0.01,0.13) | 0.08 | 0.22 | 4 |
| WHO Motor Milestone | Sum Total | mannitol concentration | 1 | 1,083 | -0.06 | 1.29 | 0.06(-0.01,0.14) | 0.08 | 0.22 | 4 |
| **Extended Ages and Stages Questionnaire** | **Communication Score** | **alpha-1 antitrypsin** | **1** | **796** | **0.28** | **0.99** | **0.1(0,0.19)** | **0.05\*** | **0.8** | **5** |
| Extended Ages and Stages Questionnaire | Gross Motor Score | alpha-1 antitrypsin | 1 | 816 | 0.28 | 0.98 | 0(-0.06,0.05) | 0.88 | 0.96 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | alpha-1 antitrypsin | 1 | 818 | 0.28 | 0.98 | 0.03(-0.03,0.08) | 0.36 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 1 | 796 | 0.28 | 0.99 | 0.04(-0.03,0.11) | 0.3 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | myeloperoxidase | 1 | 797 | 1,735.14 | 7,789.57 | -0.01(-0.06,0.04) | 0.77 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | myeloperoxidase | 1 | 817 | 1,719.96 | 7,683.52 | 0.01(-0.04,0.06) | 0.72 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | myeloperoxidase | 1 | 819 | 1,693.85 | 7,644.77 | -0.01(-0.06,0.04) | 0.76 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 1 | 797 | 1,735.14 | 7,789.57 | -0.01(-0.06,0.05) | 0.86 | 0.96 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | neopterin | 1 | 798 | 1,239.19 | 2,867.37 | 0.06(-0.04,0.16) | 0.24 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | neopterin | 1 | 818 | 1,237.30 | 2,856.84 | -0.03(-0.1,0.04) | 0.44 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | neopterin | 1 | 820 | 1,235.92 | 2,854.07 | 0.03(-0.07,0.12) | 0.55 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 1 | 798 | 1,239.19 | 2,867.37 | 0.03(-0.06,0.12) | 0.53 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | lactulose concentration | 1 | 861 | -2.25 | -0.85 | 0.11(-0.07,0.28) | 0.24 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | lactulose concentration | 1 | 862 | -2.25 | -0.85 | -0.05(-0.13,0.03) | 0.23 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | lactulose concentration | 1 | 865 | -2.25 | -0.85 | 0.07(-0.01,0.16) | 0.1 | 0.8 | 5 |
| Extended Ages and Stages Questionnaire | Combined | lactulose concentration | 1 | 861 | -2.25 | -0.85 | 0.06(-0.09,0.2) | 0.48 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | mannitol concentration | 1 | 861 | -0.05 | 1.31 | 0.06(-0.02,0.14) | 0.15 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | mannitol concentration | 1 | 862 | -0.05 | 1.31 | 0(-0.08,0.08) | 0.96 | 0.96 | 5 |
| **Extended Ages and Stages Questionnaire** | **Personal Social Score** | **mannitol concentration** | **1** | **865** | **-0.05** | **1.31** | **0.13(0.03,0.23)** | **0.01\*** | **0.46** | **5** |
| Extended Ages and Stages Questionnaire | Combined | mannitol concentration | 1 | 861 | -0.05 | 1.31 | 0.05(-0.03,0.13) | 0.19 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | alpha-1 antitrypsin | 1 | 812 | 0.28 | 0.96 | 0.08(-0.01,0.17) | 0.09 | 0.8 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | alpha-1 antitrypsin | 1 | 719 | 0.28 | 0.93 | 0(-0.06,0.06) | 0.95 | 0.96 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | alpha-1 antitrypsin | 1 | 814 | 0.28 | 0.97 | 0.02(-0.03,0.08) | 0.43 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | alpha-1 antitrypsin | 1 | 694 | 0.28 | 0.93 | 0.03(-0.09,0.14) | 0.69 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | myeloperoxidase | 1 | 813 | 1,656.36 | 7,606.02 | -0.01(-0.06,0.04) | 0.63 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | myeloperoxidase | 1 | 719 | 1,646.79 | 7,513.76 | 0.01(-0.04,0.06) | 0.69 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | myeloperoxidase | 1 | 815 | 1,654.08 | 7,644.77 | -0.01(-0.06,0.05) | 0.8 | 0.94 | 5 |
| Extended Ages and Stages Questionnaire | Combined | myeloperoxidase | 1 | 694 | 1,648.68 | 7,545.19 | -0.02(-0.07,0.03) | 0.45 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | neopterin | 1 | 814 | 1,239.19 | 2,873.27 | 0.07(-0.02,0.17) | 0.14 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | neopterin | 1 | 720 | 1,212.48 | 2,780.08 | -0.05(-0.11,0.01) | 0.08 | 0.8 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | neopterin | 1 | 816 | 1,240.75 | 2,871.37 | 0.06(-0.04,0.16) | 0.25 | 0.82 | 5 |
| Extended Ages and Stages Questionnaire | Combined | neopterin | 1 | 695 | 1,213.37 | 2,774.46 | 0.01(-0.08,0.11) | 0.76 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | lactulose concentration | 2 | 831 | -2.68 | -0.98 | 0.01(-0.15,0.16) | 0.94 | 0.96 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | lactulose concentration | 2 | 831 | -2.68 | -0.98 | -0.01(-0.08,0.05) | 0.73 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | lactulose concentration | 2 | 1,078 | -2.77 | -0.93 | 0.03(-0.07,0.12) | 0.6 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | lactulose concentration | 2 | 833 | -2.69 | -0.99 | 0.03(-0.08,0.14) | 0.57 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Communication Score | mannitol concentration | 2 | 831 | -0.42 | 1.18 | 0.05(-0.05,0.14) | 0.34 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | mannitol concentration | 2 | 831 | -0.42 | 1.18 | 0(-0.07,0.08) | 0.93 | 0.96 | 5 |
| Extended Ages and Stages Questionnaire | Personal Social Score | mannitol concentration | 2 | 1,078 | -0.42 | 1.24 | -0.02(-0.09,0.05) | 0.58 | 0.93 | 5 |
| Extended Ages and Stages Questionnaire | Combined | mannitol concentration | 2 | 833 | -0.42 | 1.18 | 0.03(-0.07,0.12) | 0.6 | 0.93 | 5 |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | | |

Table : WHO Motor Milestones (Kenya)

| Outcome | Exposure | t | n | Q1 mean | Q3 mean | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Milestones 2, 4, 5, 6 | alpha-1 antitrypsin | 1 | 1,025 | 0.27 | 0.95 | 0.01(-0.03,0.05) | 0.64 | 0.71 | 4 |
| Sum Total | alpha-1 antitrypsin | 1 | 1,025 | 0.27 | 0.95 | -0.01(-0.06,0.04) | 0.71 | 0.71 | 4 |
| Milestones 2, 4, 5, 6 | myeloperoxidase | 1 | 1,026 | 1,651.31 | 7,324.34 | 0.09(-0.06,0.24) | 0.22 | 0.28 | 4 |
| Sum Total | myeloperoxidase | 1 | 1,026 | 1,651.31 | 7,324.34 | 0.11(-0.06,0.28) | 0.21 | 0.28 | 4 |
| Milestones 2, 4, 5, 6 | neopterin | 1 | 1,027 | 1,219.52 | 2,878.24 | 0.08(-0.01,0.16) | 0.07 | 0.22 | 4 |
| Sum Total | neopterin | 1 | 1,027 | 1,219.52 | 2,878.24 | 0.08(-0.01,0.17) | 0.09 | 0.22 | 4 |
| Milestones 2, 4, 5, 6 | lactulose concentration | 1 | 1,083 | -2.24 | -0.85 | 0.05(-0.01,0.12) | 0.12 | 0.24 | 4 |
| Sum Total | lactulose concentration | 1 | 1,083 | -2.24 | -0.85 | 0.05(-0.02,0.12) | 0.18 | 0.28 | 4 |
| Milestones 2, 4, 5, 6 | mannitol concentration | 1 | 1,083 | -0.06 | 1.29 | 0.06(-0.01,0.13) | 0.08 | 0.22 | 4 |
| Sum Total | mannitol concentration | 1 | 1,083 | -0.06 | 1.29 | 0.06(-0.01,0.14) | 0.08 | 0.22 | 4 |
| N, 25th Percentile, and 75th Percentile are from the adjusted analyses | | | | | | | | | |