

EED-Development Tables

WASH Benefits, Bangladesh

11 March 2021

```
bg_tables <- readRDS('tables/all_bangladesh_tables.RDS')
k_tables <- readRDS('tables/all_kenya_tables.RDS')
```

```
every_hyp <- bind_rows(
  bg_tables,
  k_tables
)
```

```
every_hyp %>%
  arrange(hyp) %>%
  kable(booktabs = TRUE) %>%
  kable_styling(latex_options="scale_down")
```

Significant Hypotheses

```
sig_hyp <- every_hyp %>%
  filter(`Unadjusted P-value` <= 0.05 | `Adjusted P-value` <= 0.05 | `FDR Corrected P-value` <= 0.05 ) %>%
  mutate(significant_unadj = ifelse(`Unadjusted P-value` <= 0.05, "Unadj.", NA),
         significant_adj = ifelse(`Adjusted P-value` <= 0.05, 'Adj.', NA),
         significant_fdr = ifelse(`FDR Corrected P-value` <= 0.05, 'FDR', NA),
         dir = case_when(str_starts(`Adjusted Difference (95% CI)`,
                                   '-') ~ '-', TRUE ~ '+')) %>%
  unite("signif", significant_unadj, significant_adj, significant_fdr, sep = ', ', na.rm = TRUE) %>%
  select(`Outcome Domain`, Outcome, Exposure, n, `Adjusted Difference (95% CI)`, `Unadj. P-value` = `Unadjusted P-value`,
        `Adj. P-value` = `Adjusted P-value`, `FDR P-value` = `FDR Corrected P-value`, hyp, signif, dir)
```

Long Tables

```
sig_hyp %>%
  filter(hyp <= 3) %>%
  kable(booktabs = TRUE, longtable = TRUE,
        caption = 'Any Significant p-value (Bangladesh)') %>%
  kable_styling(latex_options=c("hold_position", "repeat_header"), font_size = 7)
```

| Outcome Domain | Outcome | Exposure Source | Exposure | n | Q1 mean | Q3 mean | Unadjusted Difference (95% CI) | Unadjusted P-value | Adjusted Difference (95% CI) | Adjusted P-value | FDR Corrected P-value | hyp |
|----------------------------------------|-----------------------|-----------------|-------------------------|-----|---------|----------|--------------------------------|--------------------|------------------------------|------------------|-----------------------|-----|
| WHO Motor Milestone | Sum Total | fecal | Alpha-1 Antitrypsin | 806 | 0.23 | 0.79 | 0(0,0) | 0.00 | 0.03(-0.17,0.22) | 0.80 | 0.84 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | fecal | Alpha-1 Antitrypsin | 806 | 0.23 | 0.79 | -0.03(-0.24,0.17) | 0.78 | 0(-0.17,0.16) | 0.96 | 0.96 | 1 |
| WHO Motor Milestone | Sum Total | fecal | Myeloperoxidase | 808 | 4202.48 | 19091.30 | 0.05(-0.04,0.14) | 0.25 | 0.05(-0.02,0.13) | 0.16 | 0.29 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | fecal | Myeloperoxidase | 808 | 4202.48 | 19091.30 | 0.06(-0.01,0.14) | 0.11 | 0.06(0.0,0.12) | 0.07 | 0.27 | 1 |
| WHO Motor Milestone | Sum Total | fecal | Neopterin | 809 | 904.58 | 2331.48 | 0.36(0.14,0.58) | 0.00 | 0.1(-0.09,0.28) | 0.31 | 0.41 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | fecal | Neopterin | 809 | 904.58 | 2331.48 | 0.38(0.18,0.57) | 0.00 | 0.12(-0.04,0.28) | 0.15 | 0.29 | 1 |
| WHO Motor Milestone | Sum Total | urine | Lactulose concentration | 984 | 0.21 | 0.99 | -0.17(-0.5,0.16) | 0.31 | -0.21(-0.47,0.05) | 0.12 | 0.27 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | urine | Lactulose concentration | 991 | 0.21 | 0.98 | -0.1(-0.37,0.18) | 0.49 | -0.13(-0.35,0.09) | 0.25 | 0.36 | 1 |
| WHO Motor Milestone | Sum Total | urine | Mannitol concentration | 984 | 1.97 | 8.29 | -0.14(-0.28,0) | 0.05 | -0.28(-0.48,-0.08) | 0.01 | 0.06 | 1 |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | urine | Mannitol concentration | 991 | 1.97 | 8.22 | -0.08(-0.19,0.03) | 0.17 | -0.07(-0.16,0.02) | 0.11 | 0.27 | 1 |
| Communicative Development Inventories | Understanding | fecal | Alpha-1 Antitrypsin | 797 | 0.23 | 0.80 | -0.03(-0.22,0.17) | 0.79 | 0.02(-0.02,0.05) | 0.38 | 0.48 | 1 |
| Communicative Development Inventories | Expressing | fecal | Alpha-1 Antitrypsin | 793 | 0.23 | 0.80 | 0.02(-0.01,0.05) | 0.24 | 0.01(-0.03,0.05) | 0.62 | 0.69 | 1 |
| Communicative Development Inventories | Understanding | fecal | Myeloperoxidase | 799 | 4198.28 | 19174.39 | 0(-0.06,0.06) | 0.96 | -0.08(-0.3,0.14) | 0.47 | 0.56 | 1 |
| Communicative Development Inventories | Expressing | fecal | Myeloperoxidase | 795 | 4244.68 | 19500.99 | 0(-0.08,0.08) | 0.95 | 0.04(-0.02,0.1) | 0.19 | 0.32 | 1 |
| Communicative Development Inventories | Understanding | fecal | Neopterin | 800 | 896.65 | 2320.84 | 0.33(0.14,0.53) | 0.00 | 0.3(0.11,0.49) | 0.00 | 0.05 | 1 |
| Communicative Development Inventories | Expressing | fecal | Neopterin | 796 | 896.65 | 2320.84 | 0.13(-0.07,0.33) | 0.20 | 0.12(-0.08,0.33) | 0.25 | 0.36 | 1 |
| Communicative Development Inventories | Understanding | urine | Lactulose concentration | 979 | 0.21 | 0.99 | -0.17(-0.38,0.04) | 0.11 | -0.19(-0.4,0.02) | 0.07 | 0.27 | 1 |
| Communicative Development Inventories | Expressing | urine | Lactulose concentration | 976 | 0.21 | 0.99 | -0.11(-0.23,0) | 0.05 | -0.14(-0.27,-0.02) | 0.02 | 0.16 | 1 |
| Communicative Development Inventories | Understanding | urine | Mannitol concentration | 979 | 1.96 | 8.25 | -0.09(-0.18,0) | 0.05 | -0.09(-0.19,0.01) | 0.09 | 0.27 | 1 |
| Communicative Development Inventories | Expressing | urine | Mannitol concentration | 976 | 1.96 | 8.29 | -0.07(-0.17,0.03) | 0.14 | -0.09(-0.21,0.02) | 0.12 | 0.27 | 1 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Alpha-1 Antitrypsin | 696 | 0.23 | 0.81 | NA(NA,NA) | NA | -0.01(-0.2,0.17) | 0.89 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Alpha-1 Antitrypsin | 687 | 0.24 | 0.81 | NA(NA,NA) | NA | -0.02(-0.05,0.02) | 0.36 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Alpha-1 Antitrypsin | 694 | 0.23 | 0.81 | NA(NA,NA) | NA | -0.04(-0.12,0.04) | 0.32 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Alpha-1 Antitrypsin | 694 | 0.23 | 0.81 | NA(NA,NA) | NA | 0.01(-0.03,0.04) | 0.66 | 0.95 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Myeloperoxidase | 697 | 4361.10 | 20173.21 | NA(NA,NA) | NA | -0.06(-0.14,0.01) | 0.10 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Myeloperoxidase | 688 | 4492.04 | 20234.34 | NA(NA,NA) | NA | -0.12(-0.37,0.13) | 0.36 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Myeloperoxidase | 695 | 4378.55 | 20199.17 | NA(NA,NA) | NA | -0.03(-0.11,0.04) | 0.38 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Myeloperoxidase | 695 | 4378.55 | 20199.17 | NA(NA,NA) | NA | -0.03(-0.25,0.18) | 0.79 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Neopterin | 698 | 921.92 | 2357.90 | NA(NA,NA) | NA | 0.04(-0.05,0.13) | 0.37 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Neopterin | 689 | 924.15 | 2332.48 | NA(NA,NA) | NA | 0.09(-0.07,0.25) | 0.27 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Neopterin | 696 | 923.40 | 2360.63 | NA(NA,NA) | NA | 0.12(-0.06,0.3) | 0.18 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Neopterin | 696 | 921.10 | 2355.02 | NA(NA,NA) | NA | 0.12(-0.06,0.3) | 0.21 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | urine | Lactulose concentration | 865 | 0.21 | 0.97 | NA(NA,NA) | NA | 0.06(-0.23,0.35) | 0.69 | 0.97 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | urine | Lactulose concentration | 858 | 0.21 | 0.98 | NA(NA,NA) | NA | 0.11(-0.02,0.25) | 0.10 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | urine | Lactulose concentration | 863 | 0.21 | 0.97 | NA(NA,NA) | NA | 0.09(-0.14,0.31) | 0.46 | 0.83 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | urine | Lactulose concentration | 864 | 0.21 | 0.97 | NA(NA,NA) | NA | 0(-0.01,0.02) | 0.64 | 0.94 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | urine | Mannitol concentration | 865 | 2.00 | 8.23 | NA(NA,NA) | NA | 0(-0.05,0.05) | 0.94 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | urine | Mannitol concentration | 858 | 2.00 | 8.31 | NA(NA,NA) | NA | 0.01(-0.03,0.06) | 0.52 | 0.85 | 2 |
| Extended Ages and Stages Questionnaire | Combined | urine | Mannitol concentration | 863 | 1.99 | 8.22 | NA(NA,NA) | NA | 0.13(-0.07,0.33) | 0.22 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | urine | Mannitol concentration | 864 | 1.99 | 8.26 | NA(NA,NA) | NA | 0.11(-0.11,0.32) | 0.33 | 0.81 | 2 |
| Communicative Development Inventories | Understanding | fecal | Alpha-1 Antitrypsin | 701 | 0.23 | 0.81 | 0(0,0) | 0.16 | 0(-0.03,0.03) | 0.99 | 0.99 | 2 |
| Communicative Development Inventories | Expressing | fecal | Alpha-1 Antitrypsin | 707 | 0.23 | 0.81 | 0(0,0) | 1.00 | 0.01(-0.02,0.05) | 0.46 | 0.83 | 2 |
| Communicative Development Inventories | Understanding | fecal | Myeloperoxidase | 702 | 4348.29 | 20129.58 | 0.05(-0.14,0.24) | 0.65 | 0.1(-0.1,0.3) | 0.35 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | fecal | Myeloperoxidase | 708 | 4301.33 | 19890.26 | 0.05(-0.15,0.25) | 0.63 | 0.18(-0.05,0.41) | 0.13 | 0.81 | 2 |
| Communicative Development Inventories | Understanding | fecal | Neopterin | 703 | 920.02 | 2343.03 | 0.05(-0.02,0.12) | 0.17 | 0.03(-0.04,0.11) | 0.41 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | fecal | Neopterin | 709 | 917.40 | 2332.48 | 0.05(-0.02,0.12) | 0.18 | 0.06(-0.04,0.17) | 0.24 | 0.81 | 2 |
| Communicative Development Inventories | Understanding | urine | Lactulose concentration | 870 | 0.21 | 0.97 | 0.12(-0.12,0.35) | 0.34 | 0.11(-0.15,0.36) | 0.42 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | urine | Lactulose concentration | 878 | 0.21 | 0.97 | 0.09(-0.14,0.31) | 0.47 | 0.08(-0.18,0.34) | 0.55 | 0.87 | 2 |
| Communicative Development Inventories | Understanding | urine | Mannitol concentration | 870 | 2.00 | 8.16 | -0.01(-0.07,0.05) | 0.74 | 0.1(-0.09,0.3) | 0.29 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | urine | Mannitol concentration | 878 | 2.00 | 8.16 | 0.01(-0.05,0.06) | 0.84 | 0.08(-0.13,0.28) | 0.47 | 0.83 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Alpha-1 Antitrypsin | 860 | 0.25 | 0.89 | NA(NA,NA) | NA | 0.01(-0.06,0.08) | 0.79 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Alpha-1 Antitrypsin | 849 | 0.25 | 0.89 | NA(NA,NA) | NA | 0(-0.07,0.07) | 0.99 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Alpha-1 Antitrypsin | 857 | 0.25 | 0.89 | NA(NA,NA) | NA | -0.01(-0.09,0.07) | 0.85 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Alpha-1 Antitrypsin | 859 | 0.25 | 0.89 | NA(NA,NA) | NA | 0.01(-0.06,0.08) | 0.79 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Myeloperoxidase | 860 | 2795.13 | 10462.68 | NA(NA,NA) | NA | 0(-0.05,0.05) | 0.92 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Myeloperoxidase | 849 | 2764.79 | 10366.81 | NA(NA,NA) | NA | -0.01(-0.05,0.04) | 0.81 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Myeloperoxidase | 857 | 2787.01 | 10439.24 | NA(NA,NA) | NA | -0.02(-0.07,0.03) | 0.36 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Myeloperoxidase | 859 | 2792.42 | 10352.33 | NA(NA,NA) | NA | 0(-0.05,0.04) | 0.89 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | fecal | Neopterin | 860 | 638.65 | 2026.08 | NA(NA,NA) | NA | 0.04(-0.02,0.1) | 0.20 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | fecal | Neopterin | 849 | 639.82 | 2028.79 | NA(NA,NA) | NA | 0.02(-0.04,0.08) | 0.60 | 0.91 | 2 |
| Extended Ages and Stages Questionnaire | Combined | fecal | Neopterin | 857 | 644.50 | 2025.18 | NA(NA,NA) | NA | 0.06(0.0,0.12) | 0.06 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | fecal | Neopterin | 859 | 646.63 | 2026.99 | NA(NA,NA) | NA | 0.05(-0.01,0.11) | 0.14 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | urine | Lactulose concentration | 844 | 0.15 | 0.61 | NA(NA,NA) | NA | -0.03(-0.21,0.16) | 0.78 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | urine | Lactulose concentration | 836 | 0.15 | 0.61 | NA(NA,NA) | NA | -0.08(-0.18,0.01) | 0.08 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | urine | Lactulose concentration | 841 | 0.15 | 0.61 | NA(NA,NA) | NA | -0.14(-0.33,0.05) | 0.14 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | urine | Lactulose concentration | 843 | 0.15 | 0.61 | NA(NA,NA) | NA | -0.03(-0.21,0.14) | 0.73 | 0.98 | 2 |
| Extended Ages and Stages Questionnaire | Personal Social Score | urine | Mannitol concentration | 844 | 1.06 | 4.84 | NA(NA,NA) | NA | 0(-0.06,0.07) | 0.97 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Gross Motor Score | urine | Mannitol concentration | 836 | 1.06 | 4.84 | NA(NA,NA) | NA | -0.16(-0.29,-0.02) | 0.02 | 0.81 | 2 |
| Extended Ages and Stages Questionnaire | Combined | urine | Mannitol concentration | 841 | 1.06 | 4.86 | NA(NA,NA) | NA | 0(-0.06,0.06) | 0.94 | 0.99 | 2 |
| Extended Ages and Stages Questionnaire | Communication Score | urine | Mannitol concentration | 843 | 1.06 | 4.84 | NA(NA,NA) | NA | 0.01(-0.05,0.07) | 0.85 | 0.99 | 2 |
| Communicative Development Inventories | Understanding | fecal | Alpha-1 Antitrypsin | 865 | 0.25 | 0.89 | 0.2(0.03,0.37) | 0.02 | 0.05(-0.06,0.15) | 0.40 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | fecal | Alpha-1 Antitrypsin | 874 | 0.26 | 0.89 | 0.17(-0.01,0.34) | 0.06 | 0(0,0) | 0.03 | 0.81 | 2 |
| Communicative Development Inventories | Understanding | fecal | Myeloperoxidase | 865 | 2764.79 | 10439.24 | -0.01(-0.04,0.03) | 0.76 | -0.01(-0.06,0.03) | 0.58 | 0.90 | 2 |
| Communicative Development Inventories | Expressing | fecal | Myeloperoxidase | 874 | 2789.71 | 10421.13 | 0(0,0) | 1.00 | -0.02(-0.06,0.02) | 0.41 | 0.81 | 2 |
| Communicative Development Inventories | Understanding | fecal | Neopterin | 865 | 648.77 | 2028.79 | 0.03(-0.02,0.08) | 0.22 | 0.03(-0.02,0.09) | 0.23 | 0.81 | 2 |
| Communicative Development Inventories | Expressing | fecal | Neopterin | 874 | 649.32 | 2027.89 | 0.01(-0.15,0.17) | 0.89 | -0.03(-0.13,0.07) | 0.51 | 0.85 | 2 |

Table 1: Any Significant p-value (Bangladesh)

| Outcome Domain | Outcome | Exposure | n | Adjusted Difference (95% CI) | Unadj. P-value | Adj. P-value | FDR P-value | hyp | signif |
|----------------------------------------|-----------------------|-------------------------|-----|------------------------------|----------------|--------------|-------------|-----|-------------------|
| WHO Motor Milestone | Sum Total | Alpha-1 Antitrypsin | 806 | 0.03(-0.17,0.22) | 0.00 | 0.80 | 0.84 | 1 | Unadj. |
| WHO Motor Milestone | Sum Total | Neopterin | 809 | 0.1(-0.09,0.28) | 0.00 | 0.31 | 0.41 | 1 | Unadj. |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 809 | 0.12(-0.04,0.28) | 0.00 | 0.15 | 0.29 | 1 | Unadj. |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 984 | -0.28(-0.48,-0.08) | 0.05 | 0.01 | 0.06 | 1 | Unadj., Adj. |
| Communicative Development Inventories | Understanding | Neopterin | 800 | 0.3(0.11,0.49) | 0.00 | 0.00 | 0.05 | 1 | Unadj., Adj., FDR |
| Communicative Development Inventories | Expressing | Lactulose concentration | 976 | -0.14(-0.27,-0.02) | 0.05 | 0.02 | 0.16 | 1 | Unadj., Adj. |
| Communicative Development Inventories | Understanding | Mannitol concentration | 979 | -0.09(-0.19,0.01) | 0.05 | 0.09 | 0.27 | 1 | Unadj. |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 836 | -0.16(-0.29,-0.02) | NA | 0.02 | 0.81 | 2 | Adj. |
| Communicative Development Inventories | Understanding | Alpha-1 Antitrypsin | 865 | 0.05(-0.06,0.15) | 0.02 | 0.40 | 0.81 | 2 | Unadj. |
| Communicative Development Inventories | Expressing | Alpha-1 Antitrypsin | 874 | 0(0,0) | 0.06 | 0.03 | 0.81 | 2 | Adj. |

```
sig_hyp %>%
  filter(hyp > 3) %>%
  kable(booktabs = TRUE, longtable = TRUE,
        caption = 'Any Significant p-value (Kenya)') %>%
  kable_styling(latex_options=c("hold_position", "repeat_header"), font_size = 7)
```

Table 2: Any Significant p-value (Kenya)

| Outcome Domain | Outcome | Exposure | n | Adjusted Difference (95% CI) | Unadj. P-value | Adj. P-value | FDR P-value | hyp | signif | dir |
|----------------------------------------|-----------------------|-------------------------|------|------------------------------|----------------|--------------|-------------|-----|--------------|-----|
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 1027 | 0.08(-0.01,0.16) | 0.01 | 0.07 | 0.22 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Neopterin | 1027 | 0.08(-0.01,0.17) | 0.02 | 0.09 | 0.22 | 4 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.02 | 0.34 | 0.44 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.01 | 0.35 | 0.44 | 4 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Mannitol concentration | 1083 | 0.05(0,0.09) | 0.66 | 0.03 | 0.15 | 4 | Adj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 1083 | 0.05(0.01,0.1) | 0.03 | 0.03 | 0.15 | 4 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Alpha-1 Antitrypsin | 796 | 0.1(0,0.19) | 0.10 | 0.05 | 0.60 | 5 | Adj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Lactulose concentration | 862 | 0.04(-0.18,0.26) | 0.00 | 0.73 | 0.96 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 865 | 0.06(-0.02,0.14) | 0.01 | 0.15 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Combined | Lactulose concentration | 861 | 0.16(-0.08,0.4) | 0.01 | 0.19 | 0.74 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 861 | 0.03(-0.04,0.1) | 0.00 | 0.43 | 0.95 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 862 | 0.01(-0.23,0.24) | 0.05 | 0.97 | 0.97 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Mannitol concentration | 865 | 0.11(0.02,0.2) | 0.00 | 0.02 | 0.56 | 5 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Combined | Mannitol concentration | 861 | 0.14(-0.05,0.33) | 0.00 | 0.14 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 1078 | 0.07(-0.14,0.28) | 0.00 | 0.52 | 0.96 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 831 | 0.05(0.01,0.09) | 0.10 | 0.03 | 0.56 | 5 | Adj. | + |

Tables Arranged

```
sig_hyp %>%
  arrange(`Outcome Domain`, Outcome) %>%
  kable(booktabs = TRUE,
        caption = "By Outcome") %>%
  kable_styling(latex_options="scale_down")
```

Table 3: By Outcome

| Outcome Domain | Outcome | Exposure | n | Adjusted Difference (95% CI) | Unadj. P-value | Adj. P-value | FDR P-value | hyp | signif | dir |
|----------------------------------------|-----------------------|-------------------------|------|------------------------------|----------------|--------------|-------------|-----|-------------------|-----|
| Communicative Development Inventories | Expressing | Lactulose concentration | 976 | -0.14(-0.27,-0.02) | 0.05 | 0.02 | 0.16 | 1 | Unadj., Adj. | - |
| Communicative Development Inventories | Expressing | Alpha-1 Antitrypsin | 874 | 0(0,0) | 0.06 | 0.03 | 0.81 | 2 | Adj. | + |
| Communicative Development Inventories | Understanding | Neopterin | 800 | 0.3(0.11,0.49) | 0.00 | 0.00 | 0.05 | 1 | Unadj., Adj., FDR | + |
| Communicative Development Inventories | Understanding | Mannitol concentration | 979 | -0.09(-0.19,0.01) | 0.05 | 0.09 | 0.27 | 1 | Unadj. | - |
| Communicative Development Inventories | Understanding | Alpha-1 Antitrypsin | 865 | 0.05(-0.06,0.15) | 0.02 | 0.40 | 0.81 | 2 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Combined | Lactulose concentration | 861 | 0.16(-0.08,0.4) | 0.01 | 0.19 | 0.74 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Combined | Mannitol concentration | 861 | 0.14(-0.05,0.33) | 0.00 | 0.14 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Alpha-1 Antitrypsin | 796 | 0.1(0,0.19) | 0.10 | 0.05 | 0.60 | 5 | Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 861 | 0.03(-0.04,0.1) | 0.00 | 0.43 | 0.95 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 831 | 0.05(0.01,0.09) | 0.10 | 0.03 | 0.56 | 5 | Adj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 836 | -0.16(-0.29,-0.02) | NA | 0.02 | 0.81 | 2 | Adj. | - |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Lactulose concentration | 862 | 0.04(-0.18,0.26) | 0.00 | 0.73 | 0.96 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 862 | 0.01(-0.23,0.24) | 0.05 | 0.97 | 0.97 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 865 | 0.06(-0.02,0.14) | 0.01 | 0.15 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Mannitol concentration | 865 | 0.11(0.02,0.2) | 0.00 | 0.02 | 0.56 | 5 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 1078 | 0.07(-0.14,0.28) | 0.00 | 0.52 | 0.96 | 5 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 809 | 0.12(-0.04,0.28) | 0.00 | 0.15 | 0.29 | 1 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 1027 | 0.08(-0.01,0.16) | 0.01 | 0.07 | 0.22 | 4 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.02 | 0.34 | 0.44 | 4 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Mannitol concentration | 1083 | 0.05(0,0.09) | 0.66 | 0.03 | 0.15 | 4 | Adj. | + |
| WHO Motor Milestone | Sum Total | Alpha-1 Antitrypsin | 806 | 0.03(-0.17,0.22) | 0.00 | 0.80 | 0.84 | 1 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Neopterin | 809 | 0.1(-0.09,0.28) | 0.00 | 0.31 | 0.41 | 1 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 984 | -0.28(-0.48,-0.08) | 0.05 | 0.01 | 0.06 | 1 | Unadj., Adj. | - |
| WHO Motor Milestone | Sum Total | Neopterin | 1027 | 0.08(-0.01,0.17) | 0.02 | 0.09 | 0.22 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.01 | 0.35 | 0.44 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 1083 | 0.05(0.01,0.1) | 0.03 | 0.03 | 0.15 | 4 | Unadj., Adj. | + |

Table 4: By Exposure

| Outcome Domain | Outcome | Exposure | n | Adjusted Difference (95% CI) | Unadj. P-value | Adj. P-value | FDR P-value | hyp | signif | dir |
|----------------------------------------|-----------------------|-------------------------|------|------------------------------|----------------|--------------|-------------|-----|-------------------|-----|
| WHO Motor Milestone | Sum Total | Alpha-1 Antitrypsin | 806 | 0.03(-0.17,0.22) | 0.00 | 0.80 | 0.84 | 1 | Unadj. | + |
| Communicative Development Inventories | Understanding | Alpha-1 Antitrypsin | 865 | 0.05(-0.06,0.15) | 0.02 | 0.40 | 0.81 | 2 | Unadj. | + |
| Communicative Development Inventories | Expressing | Alpha-1 Antitrypsin | 874 | 0(0,0) | 0.06 | 0.03 | 0.81 | 2 | Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Alpha-1 Antitrypsin | 796 | 0.1(0,0.19) | 0.10 | 0.05 | 0.60 | 5 | Adj. | + |
| Communicative Development Inventories | Expressing | Lactulose concentration | 976 | -0.14(-0.27,-0.02) | 0.05 | 0.02 | 0.16 | 1 | Unadj., Adj. | - |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.02 | 0.34 | 0.44 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Lactulose concentration | 1083 | 0.02(-0.02,0.06) | 0.01 | 0.35 | 0.44 | 4 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Lactulose concentration | 862 | 0.04(-0.18,0.26) | 0.00 | 0.73 | 0.96 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 865 | 0.06(-0.02,0.14) | 0.01 | 0.15 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Combined | Lactulose concentration | 861 | 0.16(-0.08,0.4) | 0.01 | 0.19 | 0.74 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Lactulose concentration | 1078 | 0.07(-0.14,0.28) | 0.00 | 0.52 | 0.96 | 5 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 984 | -0.28(-0.48,-0.08) | 0.05 | 0.01 | 0.06 | 1 | Unadj., Adj. | - |
| Communicative Development Inventories | Understanding | Mannitol concentration | 979 | -0.09(-0.19,0.01) | 0.05 | 0.09 | 0.27 | 1 | Unadj. | - |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 836 | -0.16(-0.29,-0.02) | NA | 0.02 | 0.81 | 2 | Adj. | - |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Mannitol concentration | 1083 | 0.05(0,0.09) | 0.66 | 0.03 | 0.15 | 4 | Adj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 1083 | 0.05(0.01,0.1) | 0.03 | 0.03 | 0.15 | 4 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 861 | 0.03(-0.04,0.1) | 0.00 | 0.43 | 0.95 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 862 | 0.01(-0.23,0.24) | 0.05 | 0.97 | 0.97 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Mannitol concentration | 865 | 0.11(0.02,0.2) | 0.00 | 0.02 | 0.56 | 5 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Combined | Mannitol concentration | 861 | 0.14(-0.05,0.33) | 0.00 | 0.14 | 0.69 | 5 | Unadj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 831 | 0.05(0.01,0.09) | 0.10 | 0.03 | 0.56 | 5 | Adj. | + |
| WHO Motor Milestone | Sum Total | Neopterin | 809 | 0.1(-0.09,0.28) | 0.00 | 0.31 | 0.41 | 1 | Unadj. | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 809 | 0.12(-0.04,0.28) | 0.00 | 0.15 | 0.29 | 1 | Unadj. | + |
| Communicative Development Inventories | Understanding | Neopterin | 800 | 0.3(0.11,0.49) | 0.00 | 0.00 | 0.05 | 1 | Unadj., Adj., FDR | + |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Neopterin | 1027 | 0.08(-0.01,0.16) | 0.01 | 0.07 | 0.22 | 4 | Unadj. | + |
| WHO Motor Milestone | Sum Total | Neopterin | 1027 | 0.08(-0.01,0.17) | 0.02 | 0.09 | 0.22 | 4 | Unadj. | + |

```
sig_hyp %>%
  arrange(Exposure) %>%
  kable(booktabs = TRUE,
        caption = 'By Exposure') %>%
  kable_styling(latex_options="scale_down")
```

```
sig_hyp %>%
  filter(signif != "Unadj.") %>%
  arrange(hyp, Exposure) %>%
  kable(booktabs = TRUE,
        caption = 'Only Significant Adj/FDR Corrected' ) %>%
  kable_styling(latex_options="scale_down")
```

Table 5: Only Significant Adj/FDR Corrected

| Outcome Domain | Outcome | Exposure | n | Adjusted Difference (95% CI) | Unadj. P-value | Adj. P-value | FDR P-value | hyp | signif | dir |
|----------------------------------------|-----------------------|-------------------------|------|------------------------------|----------------|--------------|-------------|-----|-------------------|-----|
| Communicative Development Inventories | Expressing | Lactulose concentration | 976 | -0.14(-0.27,-0.02) | 0.05 | 0.02 | 0.16 | 1 | Unadj., Adj. | - |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 984 | -0.28(-0.48,-0.08) | 0.05 | 0.01 | 0.06 | 1 | Unadj., Adj. | - |
| Communicative Development Inventories | Understanding | Neopterin | 800 | 0.3(0.11,0.49) | 0.00 | 0.00 | 0.05 | 1 | Unadj., Adj., FDR | + |
| Communicative Development Inventories | Expressing | Alpha-1 Antitrypsin | 874 | 0(0,0) | 0.06 | 0.03 | 0.81 | 2 | Adj. | + |
| Extended Ages and Stages Questionnaire | Gross Motor Score | Mannitol concentration | 836 | -0.16(-0.29,-0.02) | NA | 0.02 | 0.81 | 2 | Adj. | - |
| WHO Motor Milestone | Milestones 2, 4, 5, 6 | Mannitol concentration | 1083 | 0.05(0,0.09) | 0.66 | 0.03 | 0.15 | 4 | Adj. | + |
| WHO Motor Milestone | Sum Total | Mannitol concentration | 1083 | 0.05(0.01,0.1) | 0.03 | 0.03 | 0.15 | 4 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Alpha-1 Antitrypsin | 796 | 0.1(0,0.19) | 0.10 | 0.05 | 0.60 | 5 | Adj. | + |
| Extended Ages and Stages Questionnaire | Personal Social Score | Mannitol concentration | 865 | 0.11(0.02,0.2) | 0.00 | 0.02 | 0.56 | 5 | Unadj., Adj. | + |
| Extended Ages and Stages Questionnaire | Communication Score | Mannitol concentration | 831 | 0.05(0.01,0.09) | 0.10 | 0.03 | 0.56 | 5 | Adj. | + |