EED-Development Tables

WASH Benefits, Bangladesh

13 April 2021

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

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

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

Significant Hypotheses

```r
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)`,
                                    '-') ~ '-',
                         str_detect(`Adjusted Difference (95% CI)`,
                                    "0,0") ~ "",
                         TRUE ~ '+')) %>%
  unite("signif", significant_unadj, significant_adj, significant_fdr, sep = ', ', na.rm = TRUE)  %>%
  select(`Outcome Domain`, Outcome, Exposure, n, t, `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

```r
sig_hyp %>%
  filter(hyp <= 3) %>%
  kable(booktabs = TRUE, longtable = TRUE,
        caption = 'Any Significant p-value (Bangladesh)') %>%
```

Outcome Domain	Outcome	Exposure Source	Exposure	t	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	1	806	0.23000	0.79000	0(0,0)	0.00	0.03(-0.17,0.22)	0.80000	0.84000	1
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	alpha-1 antitrypsin	1	806	0.23000	0.79000	-0.03(-0.24,0.17)	0.78	0(-0.17,0.16)	0.96000	0.96000	1
WHO Motor Milestone	Sum Total	fecal	myeloperoxidase	1	808	4202.48000	19091.30000	0.05(-0.04,0.14)	0.25	0.05(-0.02,0.13)	0.16000	0.26000	1
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	myeloperoxidase	1	808	4202.48000	19091.30000	0.06(-0.01,0.14)	0.11	0.06(0,0.12)	0.07000	0.15000	1
WHO Motor Milestone	Sum Total	fecal	neopterin	1	809	904.58000	2331.48000	0.36(0.14,0.58)	0.00	0.1(-0.09,0.28)	0.31000	0.41000	1
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	neopterin	1	809	904.58000	2331.48000	0.38(0.18,0.57)	0.00	0.12(-0.04,0.28)	0.15000	0.26000	1
WHO Motor Milestone	Sum Total	urine	lactulose concentration	1	984	-1.55000	-0.01000	-0.14(-0.3,0.02)	0.09	-0.25(-0.49,-0.01)	0.04000	0.15000	1
WHO Motor Milestone	Milestones 2, 4, 5, 6	urine	lactulose concentration	1	991	-1.56000	-0.02000	-0.08(-0.22,0.05)	0.24	-0.11(-0.21,0)	0.04000	0.15000	1
WHO Motor Milestone	Sum Total	urine	mannitol concentration	1	984	0.68000	2.12000	-0.17(-0.35,0)	0.05	-0.23(-0.36,-0.09)	0.00000	0.02000	1
WHO Motor Milestone	Milestones 2, 4, 5, 6	urine	mannitol concentration	1	991	0.68000	2.11000	-0.12(-0.28,0.04)	0.14	-0.1(-0.2,0)	0.05000	0.15000	1
Communicative Development Inventories	Understanding	fecal	alpha-1 antitrypsin	1	797	0.23000	0.80000	-0.03(-0.22,0.17)	0.79	0.02(-0.02,0.05)	0.38000	0.48000	1
Communicative Development Inventories	Expressing	fecal	alpha-1 antitrypsin	1	793	0.23000	0.80000	0.02(-0.01,0.05)	0.24	0.01(-0.03,0.05)	0.62000	0.69000	1
Communicative Development Inventories	Understanding	fecal	myeloperoxidase	1	799	4198.28000	19174.39000	0(-0.06,0.06)	0.96	-0.08(-0.3,0.14)	0.47000	0.56000	1
Communicative Development Inventories	Expressing	fecal	myeloperoxidase	1	795	4244.68000	19500.99000	0(-0.08,0.08)	0.95	0.04(-0.02,0.1)	0.19000	0.29000	1
Communicative Development Inventories	Understanding	fecal	neopterin	1	800	896.65000	2320.84000	0.33(0.14,0.53)	0.00	0.3(0.11,0.49)	0.00000	0.02000	1
Communicative Development Inventories	Expressing	fecal	neopterin	1	796	896.65000	2320.84000	0.13(-0.07,0.33)	0.20	0.12(-0.08,0.33)	0.25000	0.36000	1
Communicative Development Inventories	Understanding	urine	lactulose concentration	1	979	-1.56000	-0.01000	-0.14(-0.31,0.02)	0.08	-0.16(-0.3,-0.01)	0.03000	0.15000	1
Communicative Development Inventories	Expressing	urine	lactulose concentration	1	976	-1.56000	-0.01000	-0.13(-0.28,0.03)	0.10	-0.17(-0.33,-0.01)	0.04000	0.15000	1
Communicative Development Inventories	Understanding	urine	mannitol concentration	1	979	0.67000	2.11000	-0.08(-0.17,0.01)	0.10	-0.12(-0.25,0.01)	0.07000	0.15000	1
Communicative Development Inventories	Expressing	urine	mannitol concentration	1	976	0.67000	2.12000	-0.12(-0.26,0.03)	0.11	-0.11(-0.27,0.04)	0.16000	0.26000	1
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	alpha-1 antitrypsin	1	697	0.23472	0.81281	0.08(-0.09,0.26)	0.33	0.00406(-0.18744,0.19556)	0.96994	0.98655	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	alpha-1 antitrypsin	1	693	0.23538	0.81281	-0.05(-0.28,0.17)	0.66	-0.01103(-0.05202,0.02996)	0.61021	0.92276	2
Extended Ages and Stages Questionnaire	Combined	fecal	alpha-1 antitrypsin	1	697	0.23472	0.81281	0(-0.04,0.05)	0.89	-0.01226(-0.08427,0.05975)	0.75158	0.92276	2
Extended Ages and Stages Questionnaire	Combined	fecal	alpha-1 antitrypsin	1	697	0.23472	0.81281	0.01(-0.03,0.06)	0.61	-0.00458(-0.07521,0.06606)	0.90684	0.98655	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	myeloperoxidase	1	698	4348.29435	20129.57950	-0.06(-0.13,0.01)	0.07	-0.03962(-0.13633,0.0571)	0.43004	0.87358	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	myeloperoxidase	1	694	4483.27200	20212.14700	0.05(-0.2,0.3)	0.69	0.00285(-0.02265,0.02834)	0.83798	0.98105	2
Extended Ages and Stages Questionnaire	Combined	fecal	myeloperoxidase	1	698	4348.29435	20129.57950	-0.03(-0.1,0.03)	0.37	-0.01174(-0.08582,0.06235)	0.76897	0.92276	2
Extended Ages and Stages Questionnaire	Combined	fecal	myeloperoxidase	1	698	4348.29435	20129.57950	-0.04(-0.1,0.03)	0.25	0.00741(-0.21574,0.23055)	0.95275	0.98655	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	neopterin	1	699	921.03000	2356.45750	0.16(0,0.31)	0.05	0.04653(-0.0439,0.13696)	0.31784	0.87358	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	neopterin	1	695	921.03000	2343.02820	0.1(-0.05,0.26)	0.19	0.10362(-0.06827,0.27551)	0.23983	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	neopterin	1	699	921.03000	2356.45750	0.21(0.04,0.38)	0.02	0.14384(-0.0219,0.30959)	0.08863	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	neopterin	1	699	921.03000	2356.45750	0.2(0.01,0.39)	0.04	0.12001(-0.05079,0.29082)	0.16925	0.87358	2
Extended Ages and Stages Questionnaire	Personal Social Score	urine	lactulose concentration	1	867	-1.56556	-0.03308	0.09(-0.13,0.32)	0.42	0.06013(-0.18181,0.30207)	0.63894	0.92276	2
Extended Ages and Stages Questionnaire	Gross Motor Score	urine	lactulose concentration	1	862	-1.55941	-0.02612	0.01(-0.07,0.1)	0.80	0.122(-0.0088,0.2528)	0.06714	0.87358	2
Extended Ages and Stages Questionnaire	Combined	urine	lactulose concentration	1	867	-1.56556	-0.03308	-0.01(-0.11,0.08)	0.77	0.04167(-0.05894,0.14227)	0.42480	0.87358	2
Extended Ages and Stages Questionnaire	Combined	urine	lactulose concentration	1	867	-1.56556	-0.03308	0.05(-0.11,0.2)	0.56	0.03498(-0.06316,0.13312)	0.49464	0.87358	2
Extended Ages and Stages Questionnaire	Personal Social Score	urine	mannitol concentration	1	867	0.68932	2.10653	-0.07(-0.16,0.03)	0.18	-0.02242(-0.14262,0.09779)	0.72784	0.92276	2
Extended Ages and Stages Questionnaire	Gross Motor Score	urine	mannitol concentration	1	862	0.69335	2.11783	0(-0.08,0.09)	0.92	0.08103(-0.05002,0.21209)	0.22767	0.87358	2
Extended Ages and Stages Questionnaire	Combined	urine	mannitol concentration	1	867	0.68932	2.10653	-0.02(-0.11,0.07)	0.70	0.04662(-0.07971,0.17296)	0.47888	0.87358	2
Extended Ages and Stages Questionnaire	Combined	urine	mannitol concentration	1	867	0.68932	2.10653	0(-0.09,0.09)	0.99	0.04415(-0.06333,0.15163)	0.42870	0.87358	2
Communicative Development Inventories	Understanding	fecal	alpha-1 antitrypsin	1	701	0.23472	0.81281	0(0,0)	0.16	0.00031(-0.0322,0.03282)	0.98655	0.98655	2
Communicative Development Inventories	Expressing	fecal	alpha-1 antitrypsin	1	707	0.23372	0.81100	0(0,0)	1.00	0.01326(-0.02158,0.0481)	0.46463	0.87358	2
Communicative Development Inventories	Understanding	fecal	myeloperoxidase	1	702	4348.29435	20129.57950	0.05(-0.14,0.24)	0.65	0.09959(-0.10498,0.30416)	0.34545	0.87358	2
Communicative Development Inventories	Expressing	fecal	myeloperoxidase	1	708	4301.32778	19890.26425	0.05(-0.15,0.25)	0.63	0.17803(-0.054,0.41005)	0.13278	0.87358	2
Communicative Development Inventories	Understanding	fecal	neopterin	1	703	920.02150	2343.02820	0.05(-0.02,0.12)	0.17	0.0324(-0.04404,0.10885)	0.41362	0.87358	2
Communicative Development Inventories	Expressing	fecal	neopterin	1	709	917.39502	2332.48140	0.05(-0.02,0.12)	0.18	0.06487(-0.04293,0.17267)	0.24065	0.87358	2
Communicative Development Inventories	Understanding	urine	lactulose concentration	1	870	-1.55941	-0.03308	0.11(-0.09,0.3)	0.29	0.07368(-0.13952,0.28688)	0.50835	0.87358	2
Communicative Development Inventories	Expressing	urine	lactulose concentration	1	878	-1.56402	-0.03375	0.13(-0.06,0.33)	0.18	0.1162(-0.09917,0.33156)	0.29421	0.87358	2
Communicative Development Inventories	Understanding	urine	mannitol concentration	1	870	0.69335	2.09881	-0.01(-0.19,0.16)	0.88	0.034(-0.15139,0.21939)	0.73236	0.92276	2
Communicative Development Inventories	Expressing	urine	mannitol concentration	1	878	0.69335	2.09881	0(-0.08,0.09)	0.92	-0.01037(-0.20929,0.18856)	0.92536	0.98655	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	alpha-1 antitrypsin	2	862	0.25280	0.88781	0.15(-0.04,0.34)	0.12	0.01206(-0.0618,0.08592)	0.76181	0.92276	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	alpha-1 antitrypsin	2	857	0.25148	0.89005	-0.02(-0.08,0.05)	0.67	-0.01695(-0.08785,0.05395)	0.65228	0.92276	2
Extended Ages and Stages Questionnaire	Combined	fecal	alpha-1 antitrypsin	2	862	0.25280	0.88781	0.11(-0.08,0.29)	0.26	-0.01176(-0.17605,0.15253)	0.89691	0.98655	2
Extended Ages and Stages Questionnaire	Combined	fecal	alpha-1 antitrypsin	2	862	0.25280	0.88781	0.11(-0.06,0.27)	0.21	0.0109(-0.05568,0.07747)	0.76118	0.92276	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	myeloperoxidase	2	862	2789.71350	10421.13350	0.01(-0.03,0.05)	0.66	0.0011(-0.05085,0.05305)	0.97004	0.98655	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	myeloperoxidase	2	857	2787.00600	10366.80800	0(0,0)	1.00	-0.02566(-0.07538,0.02406)	0.31640	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	myeloperoxidase	2	862	2789.71350	10421.13350	0(-0.04,0.04)	0.87	-0.01737(-0.06678,0.03203)	0.50070	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	myeloperoxidase	2	862	2789.71350	10421.13350	-0.01(-0.05,0.03)	0.68	-0.0105(-0.05759,0.03659)	0.67511	0.92276	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	neopterin	2	862	640.98975	2027.88775	0(-0.19,0.2)	0.98	0.02278(-0.05923,0.10478)	0.59834	0.92276	2
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	neopterin	2	857	639.82100	2028.79000	0.01(-0.04,0.06)	0.64	-0.07298(-0.19456,0.0486)	0.24185	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	neopterin	2	862	640.98975	2027.88775	-0.03(-0.21,0.15)	0.73	0.02938(-0.05324,0.112)	0.49570	0.87358	2
Extended Ages and Stages Questionnaire	Combined	fecal	neopterin	2	862	640.98975	2027.88775	0.04(-0.01,0.09)	0.12	0.0541(-0.00519,0.11339)	0.07333	0.87358	2
Communicative Development Inventories	Understanding	fecal	alpha-1 antitrypsin	2	865	0.25289	0.88856	0.2(0.03,0.37)	0.02	0.04569(-0.0581,0.14948)	0.39522	0.87358	2
Communicative Development Inventories	Expressing	fecal	alpha-1 antitrypsin	2	874	0.25613	0.88781	0.17(-0.01,0.34)	0.06	-0.00109(-0.00208,-1e-04)	0.03085	0.87358	2
Communicative Development Inventories	Understanding	fecal	myeloperoxidase	2	865	2764.78800	10439.24200	-0.01(-0.04,0.03)	0.76	-0.01327(-0.05888,0.03235)	0.58050	0.92276	2
Communicative Development Inventories	Expressing	fecal	myeloperoxidase	2	874	2789.71350	10421.13350	0(0,0)	1.00	-0.01675(-0.0561,0.0226)	0.41157	0.87358	2
Communicative Development Inventories	Understanding	fecal	neopterin	2	865	648.76600	2028.79000	0.03(-0.02,0.08)	0.22	0.0338(-0.02136,0.08895)	0.23195	0.87358	2
Communicative Development Inventories	Expressing	fecal	neopterin	2	874	649.31725	2027.88775	0.01(-0.15,0.17)	0.89	-0.03447(-0.13449,0.06555)	0.50959	0.87358	2
Extended Ages and Stages Questionnaire	Personal Social Score	fecal	regenerating gene 1-beta	2	860	101.80000	234.69000	-0.01(-0.05,0.04)	0.79	0(-0.06,0.06)	0.97000	0.97000	3
Extended Ages and Stages Questionnaire	Gross Motor Score	fecal	regenerating gene 1-beta	2	855	101.68000	234.33000	0.02(-0.07,0.12)	0.65	-0.01(-0.12,0.09)	0.80000	0.96000	3
Extended Ages and Stages Questionnaire	Combined	fecal	regenerating gene 1-beta	2	860	101.80000	234.69000	-0.01(-0.06,0.03)	0.51	-0.01(-0.07,0.05)	0.78000	0.96000	3
Extended Ages and Stages Questionnaire	Combined	fecal	regenerating gene 1-beta	2	860	101.80000	234.69000	-0.01(-0.04,0.03)	0.79	0.02(-0.03,0.08)	0.43000	0.96000	3
Communicative Development Inventories	Understanding	fecal	regenerating gene 1-beta	2	863	102.21000	234.33000	-0.13(-0.29,0.04)	0.12	0.02(-0.04,0.07)	0.55000	0.96000	3
Communicative Development Inventories	Expressing	fecal	regenerating gene 1-beta	2	872	102.46000	234.69000	-0.11(-0.27,0.05)	0.18	-0.04(-0.15,0.06)	0.40000	0.96000	3
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	alpha-1 antitrypsin	1	1025	0.27000	0.95000	-0.03(-0.08,0.02)	0.22	0.01(-0.03,0.05)	0.64000	0.71000	4
WHO Motor Milestone	Sum Total	fecal	alpha-1 antitrypsin	1	1025	0.27000	0.95000	-0.05(-0.11,0)	0.06	-0.01(-0.06,0.04)	0.71000	0.71000	4
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	myeloperoxidase	1	1026	1651.31000	7324.34000	0.22(-0.02,0.46)	0.07	0.09(-0.06,0.24)	0.22000	0.28000	4
WHO Motor Milestone	Sum Total	fecal	myeloperoxidase	1	1026	1651.31000	7324.34000	0.25(-0.02,0.51)	0.06	0.11(-0.06,0.28)	0.21000	0.28000	4
WHO Motor Milestone	Milestones 2, 4, 5, 6	fecal	neopterin	1	1027	1219.52000	2878.24000	0.12(0.02,0.21)	0.01	0.08(-0.01,0.16)	0.07000	0.22000	4

```
kable_styling(latex_options=c("hold_position", "repeat_header"), font_size = 7)
```

Table 1: Any Significant p-value (Bangladesh)

Outcome Domain	Outcome	Exposure	n	t	Adjusted Difference (95% CI)	Unadj. P-value	Adj. P-value	FDR P-value	hyp	signif
WHO Motor Milestone	Sum Total	alpha-1 antitrypsin	806	1	0.03(-0.17,0.22)	0.00	0.80000	0.84000	1	Unadj.
WHO Motor Milestone	Sum Total	neopterin	809	1	0.1(-0.09,0.28)	0.00	0.31000	0.41000	1	Unadj.
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	809	1	0.12(-0.04,0.28)	0.00	0.15000	0.26000	1	Unadj.
WHO Motor Milestone	Sum Total	lactulose concentration	984	1	-0.25(-0.49,-0.01)	0.09	0.04000	0.15000	1	Adj.
WHO Motor Milestone	Milestones 2, 4, 5, 6	lactulose concentration	991	1	-0.11(-0.21,0)	0.24	0.04000	0.15000	1	Adj.
WHO Motor Milestone	Sum Total	mannitol concentration	984	1	-0.23(-0.36,-0.09)	0.05	0.00000	0.02000	1	Unadj., Adj., FD
WHO Motor Milestone	Milestones 2, 4, 5, 6	mannitol concentration	991	1	-0.1(-0.2,0)	0.14	0.05000	0.15000	1	Adj.
Communicative Development Inventories	Understanding	neopterin	800	1	0.3(0.11,0.49)	0.00	0.00000	0.02000	1	Unadj., Adj., FD
Communicative Development Inventories	Understanding	lactulose concentration	979	1	-0.16(-0.3,-0.01)	0.08	0.03000	0.15000	1	Adj.
Communicative Development Inventories	Expressing	lactulose concentration	976	1	-0.17(-0.33,-0.01)	0.10	0.04000	0.15000	1	Adj.
Extended Ages and Stages Questionnaire	Personal Social Score	neopterin	699	1	0.04653(-0.0439,0.13696)	0.05	0.31784	0.87358	2	Unadj.
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.14384(-0.0219,0.30959)	0.02	0.08863	0.87358	2	Unadj.
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.12001(-0.05079,0.29082)	0.04	0.16925	0.87358	2	Unadj.
Communicative Development Inventories	Understanding	alpha-1 antitrypsin	865	2	0.04569(-0.0581,0.14948)	0.02	0.39522	0.87358	2	Unadj.
Communicative Development Inventories	Expressing	alpha-1 antitrypsin	874	2	-0.00109(-0.00208,-1e-04)	0.06	0.03085	0.87358	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	t	Adjusted Difference (95% CI)	Unadj. P-value	Adj. P-value	FDR P-value	hyp	signif
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	1027	1	0.08(-0.01,0.16)	0.01	0.07	0.22	4	Unadj.
WHO Motor Milestone	Sum Total	neopterin	1027	1	0.08(-0.01,0.17)	0.02	0.09	0.22	4	Unadj.
WHO Motor Milestone	Sum Total	lactulose concentration	1083	1	0.05(-0.02,0.12)	0.03	0.18	0.28	4	Unadj.
WHO Motor Milestone	Sum Total	mannitol concentration	1083	1	0.06(-0.01,0.14)	0.04	0.08	0.22	4	Unadj.
Extended Ages and Stages Questionnaire	Communication Score	alpha-1 antitrypsin	796	1	0.1(0,0.19)	0.10	0.05	0.80	5	Adj.
Extended Ages and Stages Questionnaire	Communication Score	lactulose concentration	861	1	0.11(-0.07,0.28)	0.01	0.24	0.82	5	Unadj.
Extended Ages and Stages Questionnaire	Gross Motor Score	lactulose concentration	862	1	-0.05(-0.13,0.03)	0.01	0.23	0.82	5	Unadj.
Extended Ages and Stages Questionnaire	Personal Social Score	lactulose concentration	865	1	0.07(-0.01,0.16)	0.00	0.10	0.80	5	Unadj.
Extended Ages and Stages Questionnaire	Combined	lactulose concentration	861	1	0.06(-0.09,0.2)	0.00	0.48	0.93	5	Unadj.
Extended Ages and Stages Questionnaire	Communication Score	mannitol concentration	861	1	0.06(-0.02,0.14)	0.00	0.15	0.82	5	Unadj.
Extended Ages and Stages Questionnaire	Gross Motor Score	mannitol concentration	862	1	0(-0.08,0.08)	0.00	0.96	0.96	5	Unadj.
Extended Ages and Stages Questionnaire	Personal Social Score	mannitol concentration	865	1	0.13(0.03,0.23)	0.00	0.01	0.46	5	Unadj., Adj.
Extended Ages and Stages Questionnaire	Combined	mannitol concentration	861	1	0.05(-0.03,0.13)	0.00	0.19	0.82	5	Unadj.

Tables Arranged

```
sig_hyp %>%
  arrange(`Outcome Domain`, Outcome) %>%
  kable(booktabs = TRUE,
```

3

Table 3: By Outcome

Outcome Domain	Outcome	Exposure	n	t	Adjusted Difference (95% CI)	Unadj. P-value	Adj. P-value	FDR P-value	hyp	signif	dir
Communicative Development Inventories	Expressing	lactulose concentration	976	1	-0.17(-0.33,-0.01)	0.10	0.04000	0.15000	1	Adj.	-
Communicative Development Inventories	Expressing	alpha-1 antitrypsin	874	2	-0.00109(-0.00208,-1e-04)	0.06	0.03085	0.87358	2	Adj.	-
Communicative Development Inventories	Understanding	neopterin	800	1	0.3(0.11,0.49)	0.00	0.00000	0.02000	1	Unadj., Adj., FDR	+
Communicative Development Inventories	Understanding	lactulose concentration	979	1	-0.16(-0.3,-0.01)	0.08	0.03000	0.15000	1	Adj.	-
Communicative Development Inventories	Understanding	alpha-1 antitrypsin	865	2	0.04569(-0.0581,0.14948)	0.02	0.39522	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.14384(-0.0219,0.30959)	0.02	0.08863	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.12001(-0.05079,0.29082)	0.04	0.16925	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	lactulose concentration	861	1	0.06(-0.09,0.2)	0.00	0.48000	0.93000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	mannitol concentration	861	1	0.05(-0.03,0.13)	0.00	0.19000	0.82000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Communication Score	alpha-1 antitrypsin	796	1	0.1(0,0.19)	0.10	0.05000	0.80000	5	Adj.	
Extended Ages and Stages Questionnaire	Communication Score	lactulose concentration	861	1	0.11(-0.07,0.28)	0.01	0.24000	0.82000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Communication Score	mannitol concentration	861	1	0.06(-0.02,0.14)	0.00	0.15000	0.82000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Gross Motor Score	lactulose concentration	862	1	-0.05(-0.13,0.03)	0.01	0.23000	0.82000	5	Unadj.	-
Extended Ages and Stages Questionnaire	Gross Motor Score	mannitol concentration	862	1	0(-0.08,0.08)	0.00	0.96000	0.96000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Personal Social Score	neopterin	699	1	0.04653(-0.0439,0.13696)	0.05	0.31784	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Personal Social Score	lactulose concentration	865	1	0.07(-0.01,0.16)	0.00	0.10000	0.80000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Personal Social Score	mannitol concentration	865	1	0.13(0.03,0.23)	0.00	0.01000	0.46000	5	Unadj., Adj.	+
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	809	1	0.12(-0.04,0.28)	0.00	0.15000	0.26000	1	Unadj.	+
WHO Motor Milestone	Milestones 2, 4, 5, 6	lactulose concentration	991	1	-0.11(-0.21,0)	0.24	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	mannitol concentration	991	1	-0.1(-0.2,0)	0.14	0.05000	0.15000	1	Adj.	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	1027	1	0.08(-0.01,0.16)	0.01	0.07000	0.22000	4	Unadj.	+
WHO Motor Milestone	Sum Total	alpha-1 antitrypsin	806	1	0.03(-0.17,0.22)	0.00	0.80000	0.84000	1	Unadj.	+
WHO Motor Milestone	Sum Total	neopterin	809	1	0.1(-0.09,0.28)	0.00	0.31000	0.41000	1	Unadj.	+
WHO Motor Milestone	Sum Total	lactulose concentration	984	1	-0.25(-0.49,-0.01)	0.09	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Sum Total	mannitol concentration	984	1	-0.23(-0.36,-0.09)	0.05	0.00000	0.02000	1	Unadj., Adj., FDR	-
WHO Motor Milestone	Sum Total	neopterin	1027	1	0.08(-0.01,0.17)	0.02	0.09000	0.22000	4	Unadj.	+
WHO Motor Milestone	Sum Total	lactulose concentration	1083	1	0.05(-0.02,0.12)	0.03	0.18000	0.28000	4	Unadj.	+
WHO Motor Milestone	Sum Total	mannitol concentration	1083	1	0.06(-0.01,0.14)	0.04	0.08000	0.22000	4	Unadj.	+

```
      caption = "By Outcome") %>%
  kable_styling(latex_options="scale_down")
```

```
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 4: By Exposure

Outcome Domain	Outcome	Exposure	n	t	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	1	0.03(-0.17,0.22)	0.00	0.80000	0.84000	1	Unadj.	+
Communicative Development Inventories	Understanding	alpha-1 antitrypsin	865	2	0.04569(-0.0581,0.14948)	0.02	0.39522	0.87358	2	Unadj.	+
Communicative Development Inventories	Expressing	alpha-1 antitrypsin	874	2	-0.00109(-0.00208,-1e-04)	0.06	0.03085	0.87358	2	Adj.	-
Extended Ages and Stages Questionnaire	Communication Score	alpha-1 antitrypsin	796	1	0.1(0,0.19)	0.10	0.05000	0.80000	5	Adj.	
WHO Motor Milestone	Sum Total	lactulose concentration	984	1	-0.25(-0.49,-0.01)	0.09	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	lactulose concentration	991	1	-0.11(-0.21,0)	0.24	0.04000	0.15000	1	Adj.	-
Communicative Development Inventories	Understanding	lactulose concentration	979	1	-0.16(-0.3,-0.01)	0.08	0.03000	0.15000	1	Adj.	-
Communicative Development Inventories	Expressing	lactulose concentration	976	1	-0.17(-0.33,-0.01)	0.10	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Sum Total	lactulose concentration	1083	1	0.05(-0.02,0.12)	0.03	0.18000	0.28000	4	Unadj.	+
Extended Ages and Stages Questionnaire	Communication Score	lactulose concentration	861	1	0.11(-0.07,0.28)	0.01	0.24000	0.82000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Gross Motor Score	lactulose concentration	862	1	-0.05(-0.13,0.03)	0.01	0.23000	0.82000	5	Unadj.	-
Extended Ages and Stages Questionnaire	Personal Social Score	lactulose concentration	865	1	0.07(-0.01,0.16)	0.00	0.10000	0.80000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	lactulose concentration	861	1	0.06(-0.09,0.2)	0.00	0.48000	0.93000	5	Unadj.	+
WHO Motor Milestone	Sum Total	mannitol concentration	984	1	-0.23(-0.36,-0.09)	0.05	0.00000	0.02000	1	Unadj., Adj., FDR	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	mannitol concentration	991	1	-0.1(-0.2,0)	0.14	0.05000	0.15000	1	Adj.	-
WHO Motor Milestone	Sum Total	mannitol concentration	1083	1	0.06(-0.01,0.14)	0.04	0.08000	0.22000	4	Unadj.	+
Extended Ages and Stages Questionnaire	Communication Score	mannitol concentration	861	1	0.06(-0.02,0.14)	0.00	0.15000	0.82000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Gross Motor Score	mannitol concentration	862	1	0(-0.08,0.08)	0.00	0.96000	0.96000	5	Unadj.	+
Extended Ages and Stages Questionnaire	Personal Social Score	mannitol concentration	865	1	0.13(0.03,0.23)	0.00	0.01000	0.46000	5	Unadj., Adj.	+
Extended Ages and Stages Questionnaire	Combined	mannitol concentration	861	1	0.05(-0.03,0.13)	0.00	0.19000	0.82000	5	Unadj.	+
WHO Motor Milestone	Sum Total	neopterin	809	1	0.1(-0.09,0.28)	0.00	0.31000	0.41000	1	Unadj.	+
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	809	1	0.12(-0.04,0.28)	0.00	0.15000	0.26000	1	Unadj.	+
Communicative Development Inventories	Understanding	neopterin	800	1	0.3(0.11,0.49)	0.00	0.00000	0.02000	1	Unadj., Adj., FDR	+
Extended Ages and Stages Questionnaire	Personal Social Score	neopterin	699	1	0.04653(-0.0439,0.13696)	0.05	0.31784	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.14384(-0.0219,0.30959)	0.02	0.08863	0.87358	2	Unadj.	+
Extended Ages and Stages Questionnaire	Combined	neopterin	699	1	0.12001(-0.05079,0.29082)	0.04	0.16925	0.87358	2	Unadj.	+
WHO Motor Milestone	Milestones 2, 4, 5, 6	neopterin	1027	1	0.08(-0.01,0.16)	0.01	0.07000	0.22000	4	Unadj.	+
WHO Motor Milestone	Sum Total	neopterin	1027	1	0.08(-0.01,0.17)	0.02	0.09000	0.22000	4	Unadj.	+

Table 5: Only Significant Adj/FDR Corrected

Outcome Domain	Outcome	Exposure	n	t	Adjusted Difference (95% CI)	Unadj. P-value	Adj. P-value	FDR P-value	hyp	signif	dir
WHO Motor Milestone	Sum Total	lactulose concentration	984	1	-0.25(-0.49,-0.01)	0.09	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	lactulose concentration	991	1	-0.11(-0.21,0)	0.24	0.04000	0.15000	1	Adj.	-
Communicative Development Inventories	Understanding	lactulose concentration	979	1	-0.16(-0.3,-0.01)	0.08	0.03000	0.15000	1	Adj.	-
Communicative Development Inventories	Expressing	lactulose concentration	976	1	-0.17(-0.33,-0.01)	0.10	0.04000	0.15000	1	Adj.	-
WHO Motor Milestone	Sum Total	mannitol concentration	984	1	-0.23(-0.36,-0.09)	0.05	0.00000	0.02000	1	Unadj., Adj., FDR	-
WHO Motor Milestone	Milestones 2, 4, 5, 6	mannitol concentration	991	1	-0.1(-0.2,0)	0.14	0.05000	0.15000	1	Adj.	-
Communicative Development Inventories	Understanding	neopterin	800	1	0.3(0.11,0.49)	0.00	0.00000	0.02000	1	Unadj., Adj., FDR	+
Communicative Development Inventories	Expressing	alpha-1 antitrypsin	874	2	-0.00109(-0.00208,-1e-04)	0.06	0.03085	0.87358	2	Adj.	-
Extended Ages and Stages Questionnaire	Communication Score	alpha-1 antitrypsin	796	1	0.1(0,0.19)	0.10	0.05000	0.80000	5	Adj.	
Extended Ages and Stages Questionnaire	Personal Social Score	mannitol concentration	865	1	0.13(0.03,0.23)	0.00	0.01000	0.46000	5	Unadj., Adj.	+