

Sensitivity analyses: childhood

For each model, at CpGs with $P < 1e-5$, we conducted a leave-one-out analysis (systematically leaving one cohort at a time out of the meta-analysis) and plotted the resulting effect estimates and 95% confidence intervals (pages 3-22).

For the childhood timepoint, we also conducted a meta-regression to assess the strength of association between age at methylation sample on the meta-EWAS effect estimates. The coefficients, confidence intervals and p-values for these analyses are provided in the tables on pages 23-25

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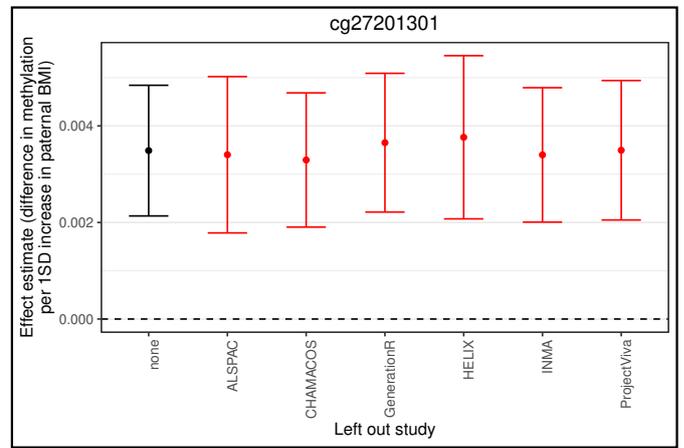
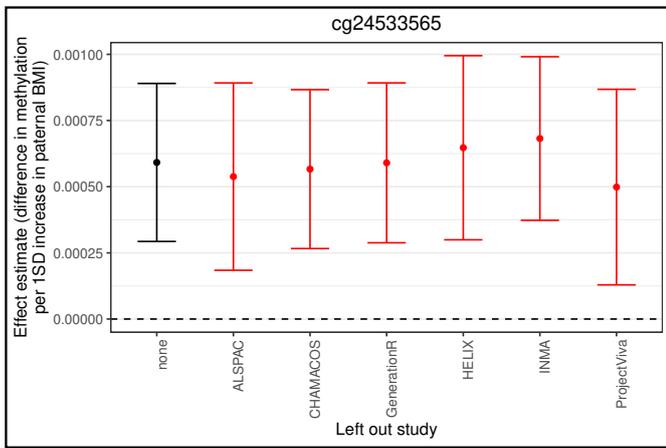
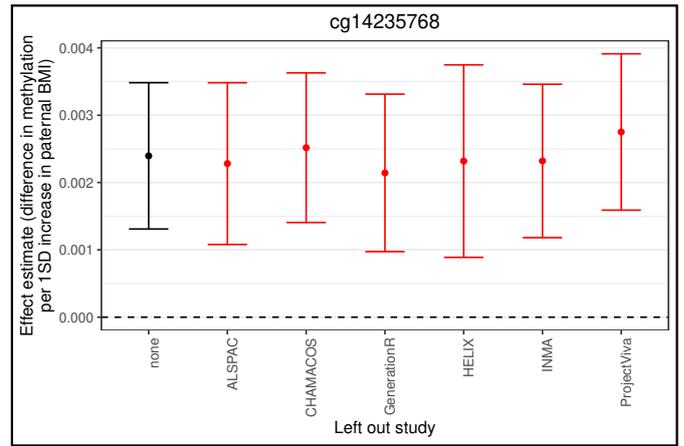
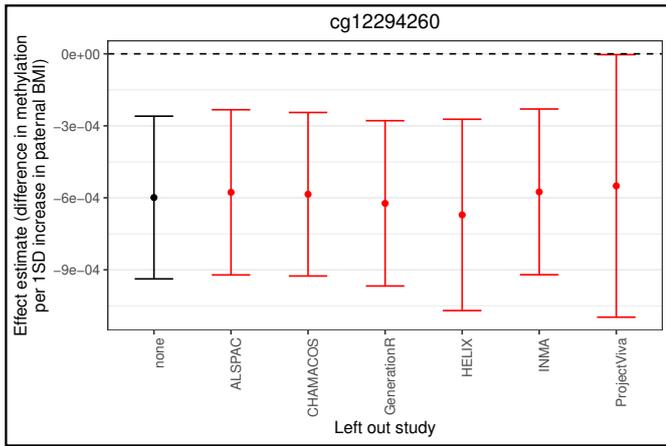
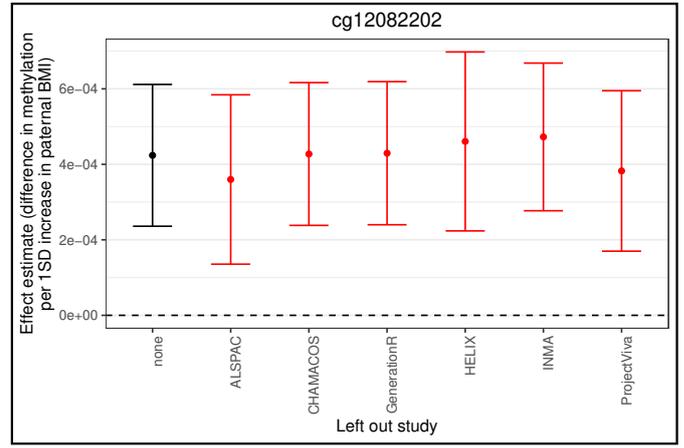
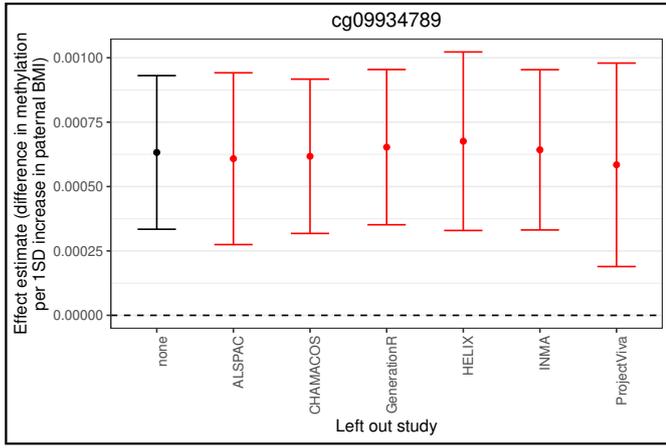
Leave one out plots:

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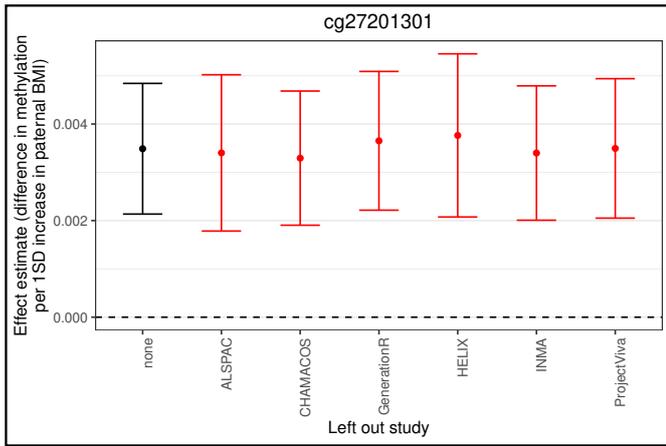
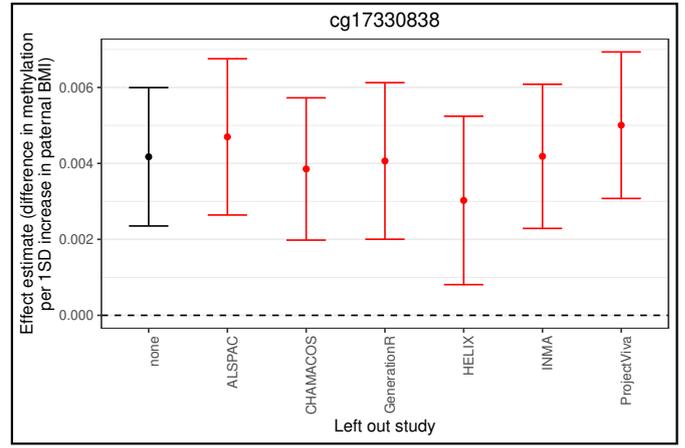
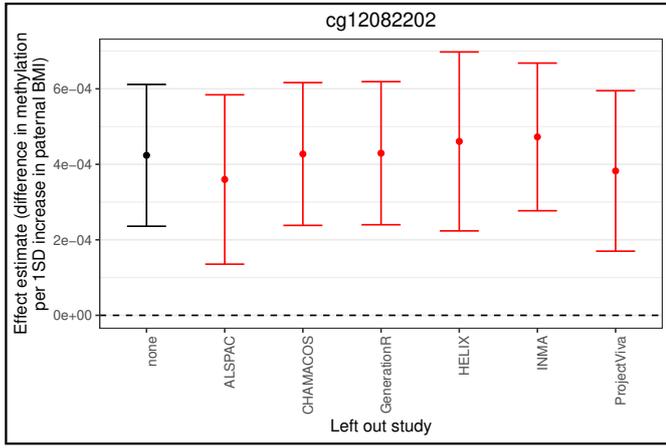
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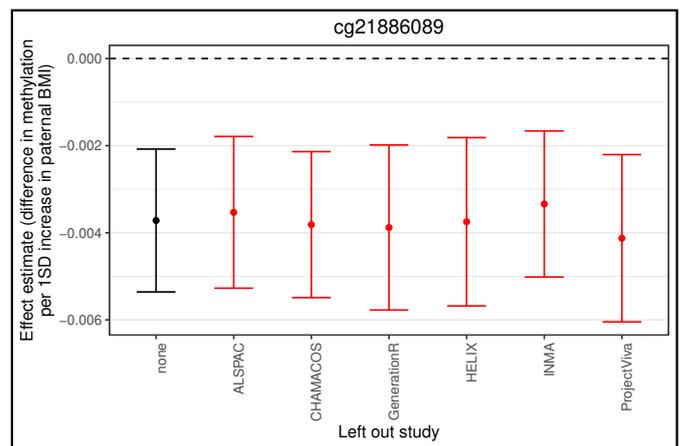
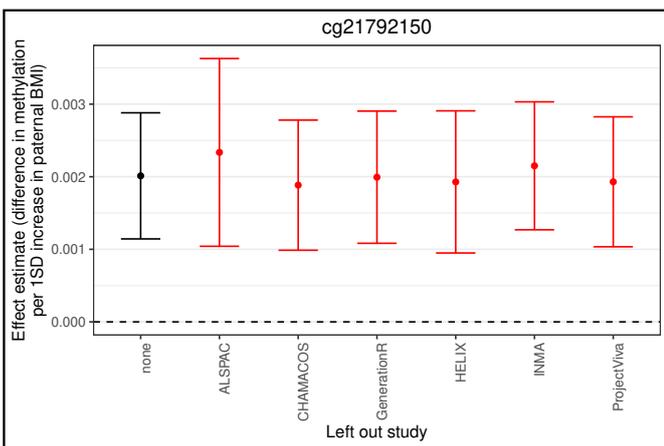
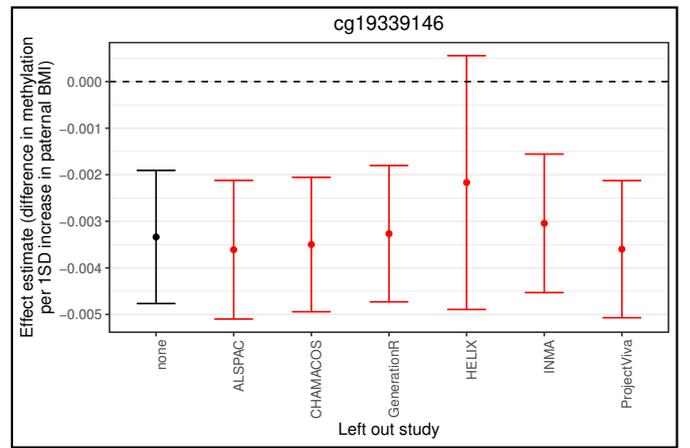
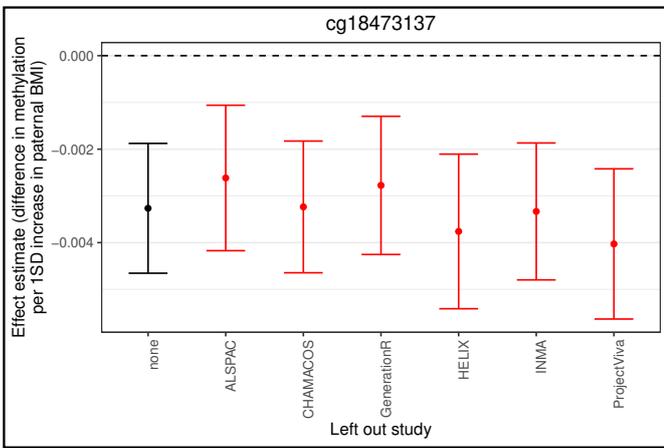
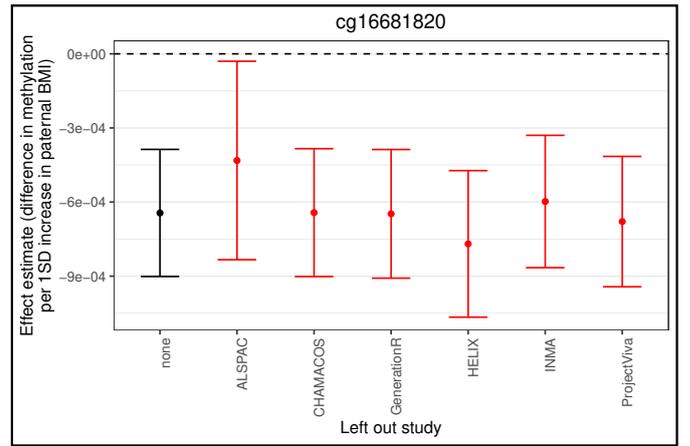
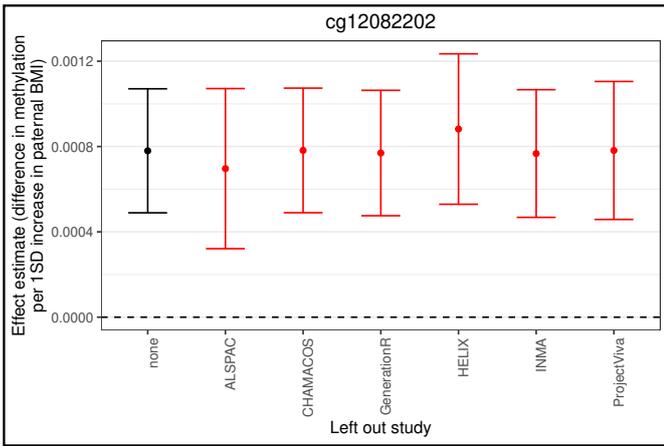
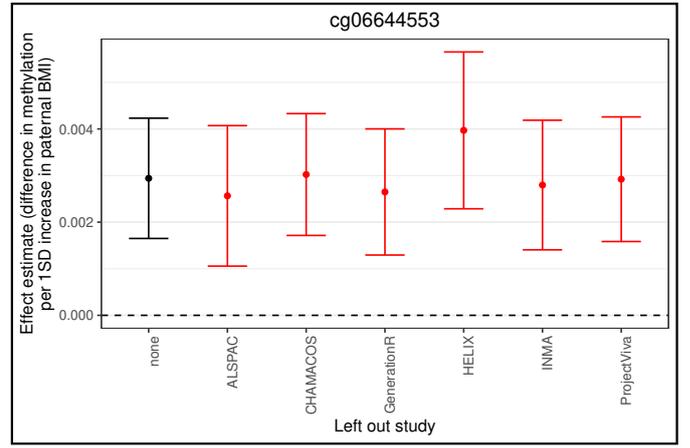
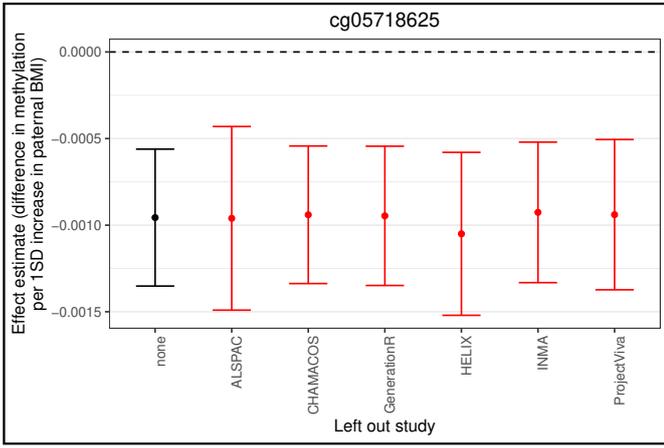
Paternal BMI (unadjusted for maternal BMI): page 3

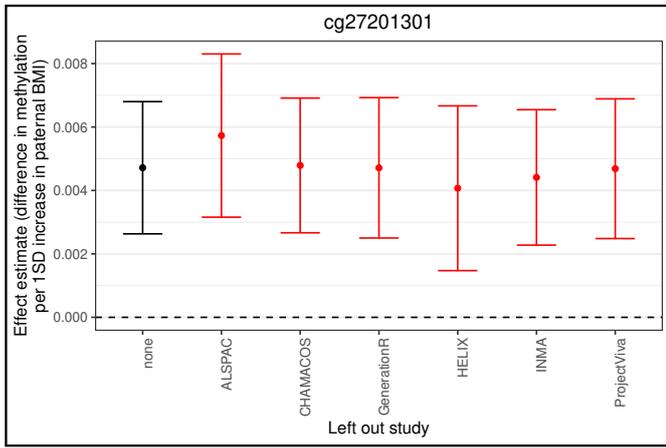


Paternal BMI (adjusted for maternal BMI): page 5

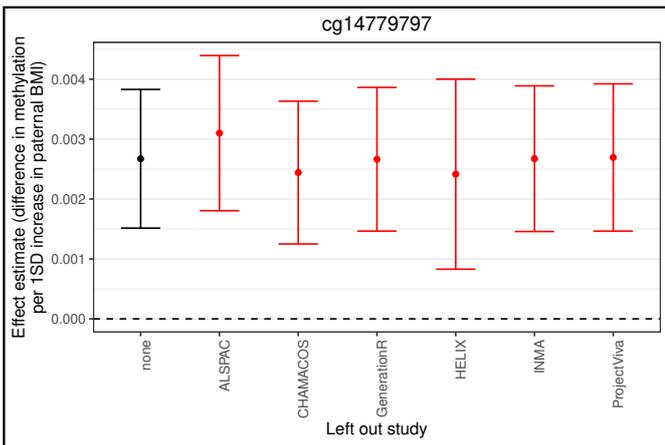
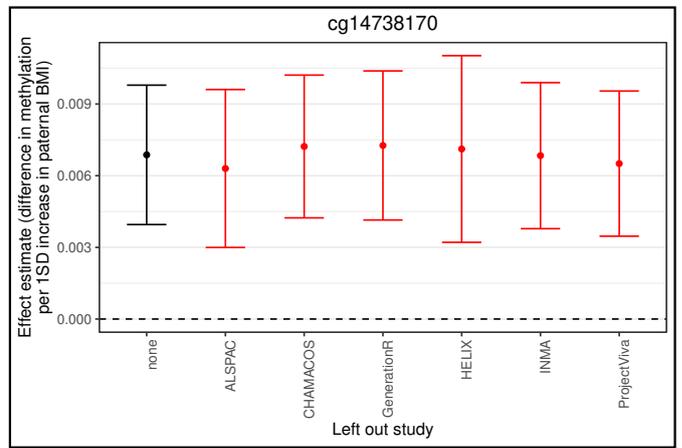
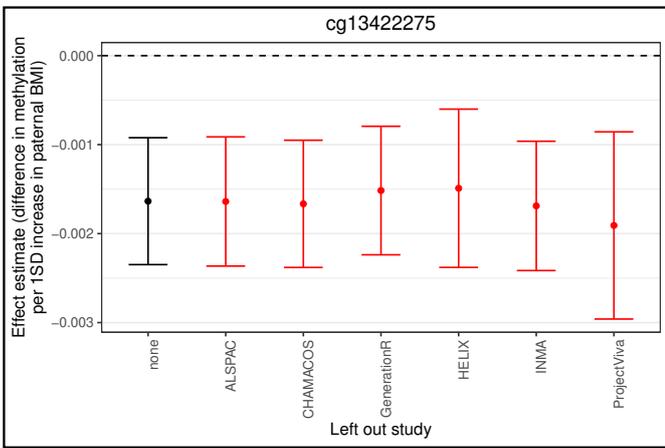
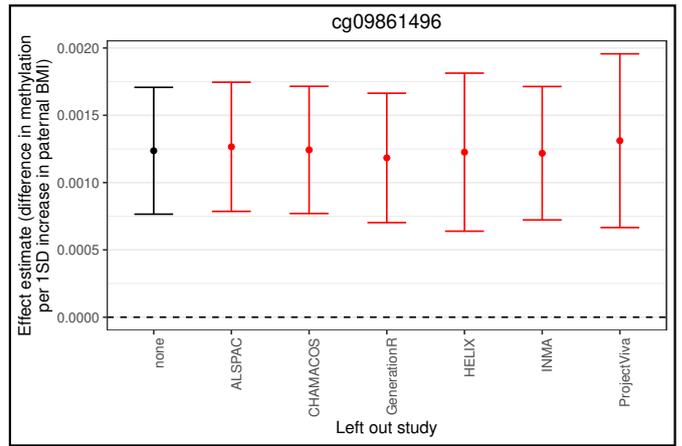
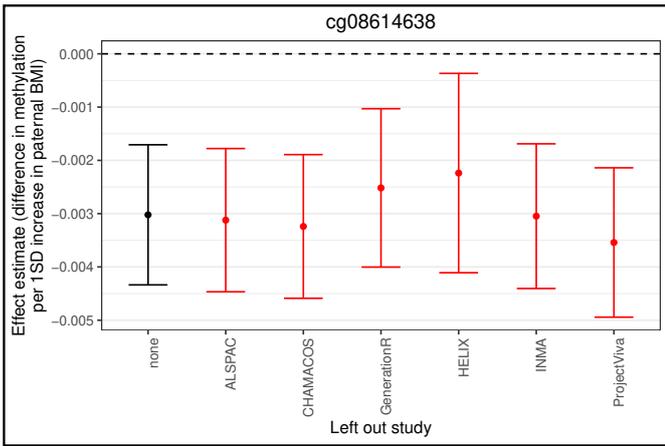
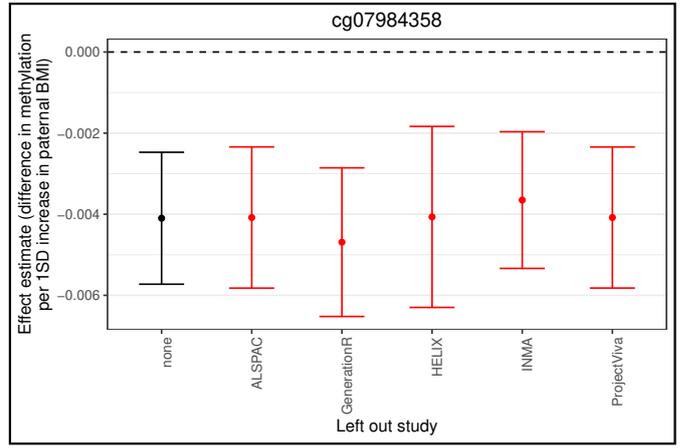
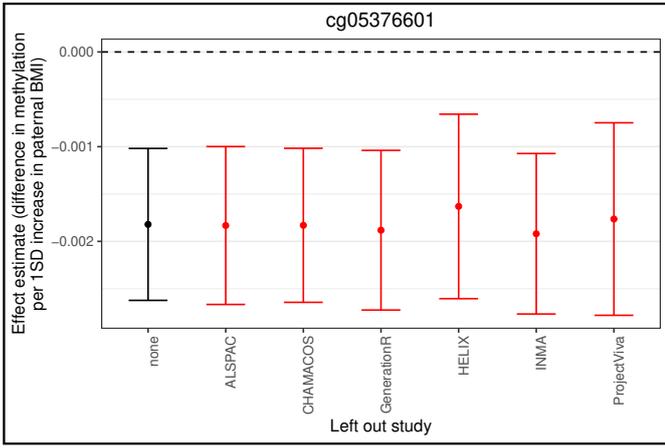


Paternal BMI adjusted for maternal BMI – female offspring only: pages 7-8

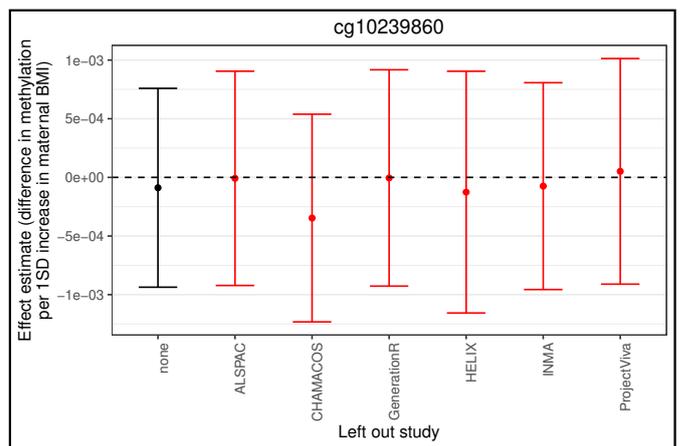
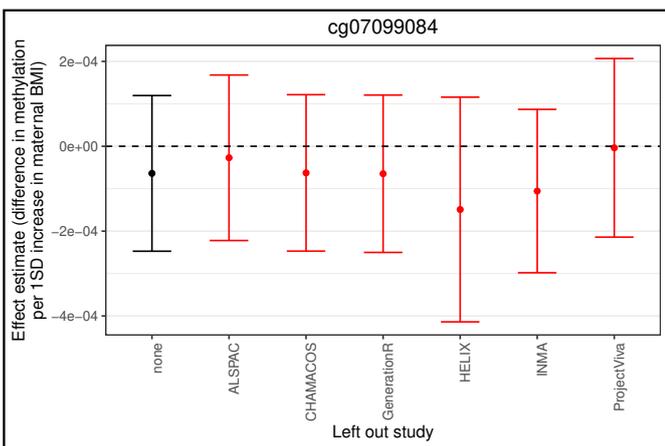
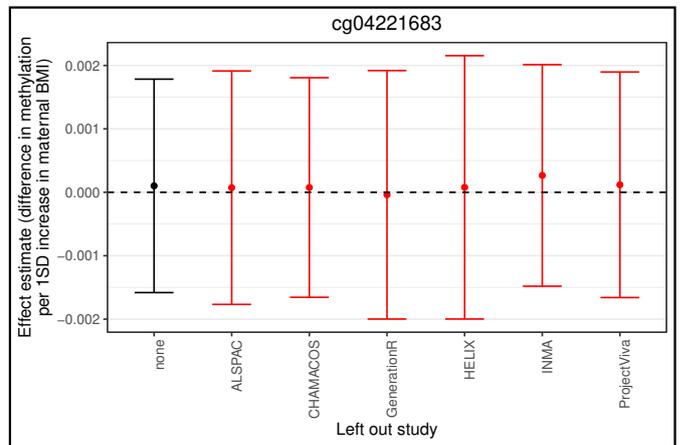
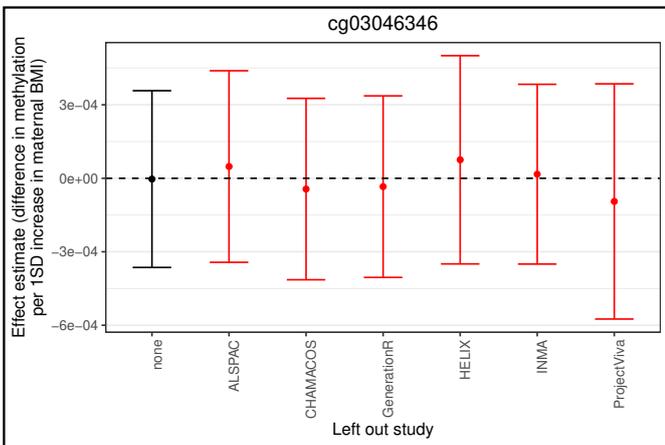
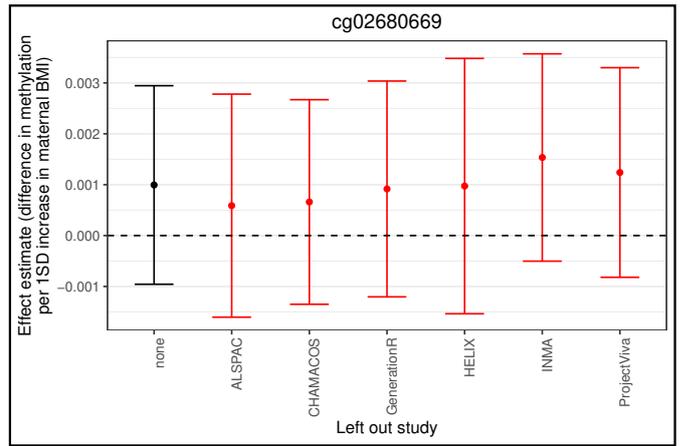
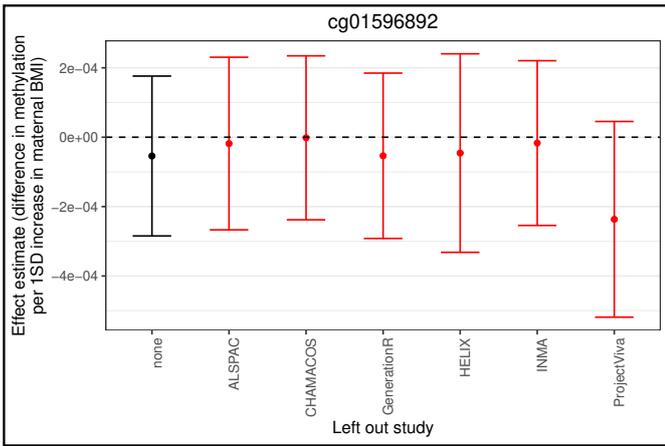
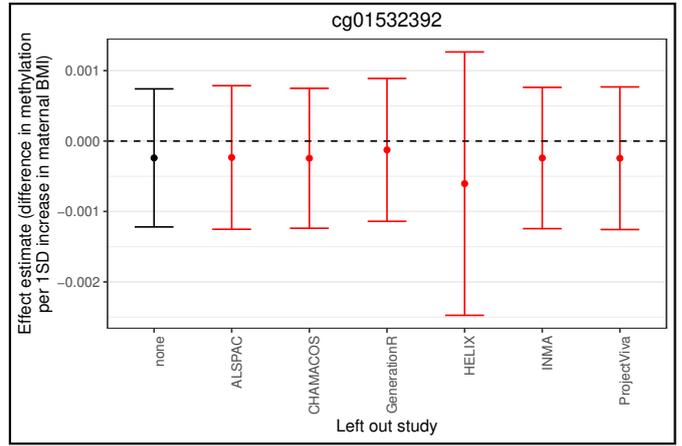
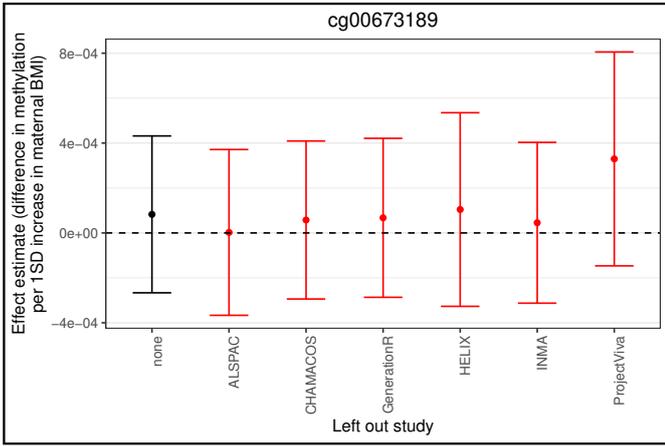


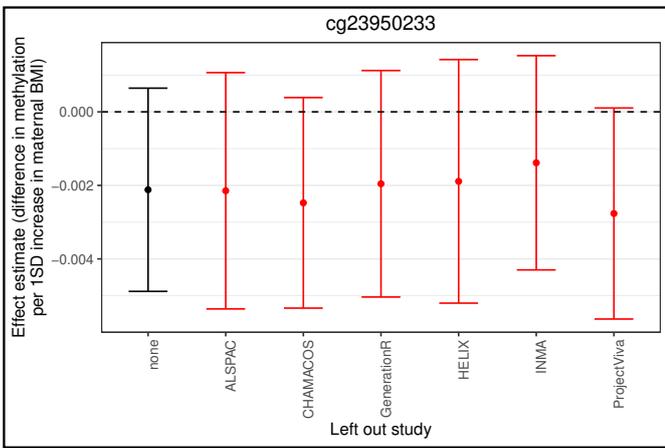
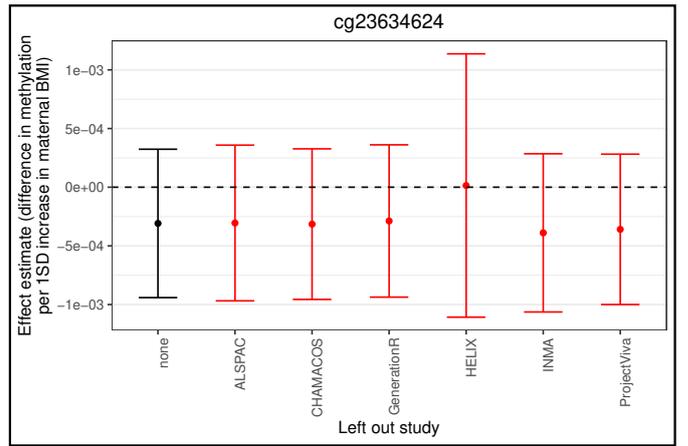
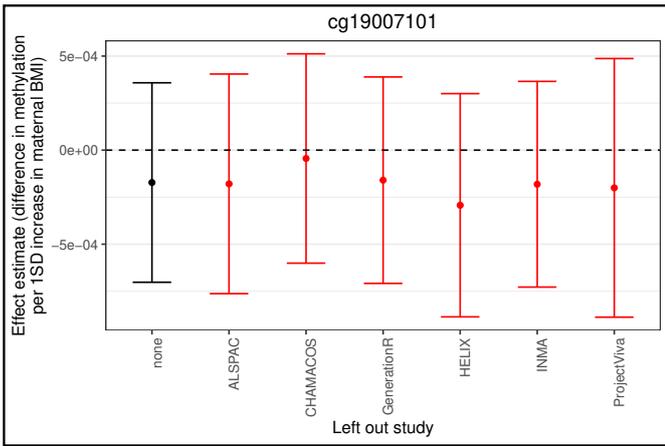
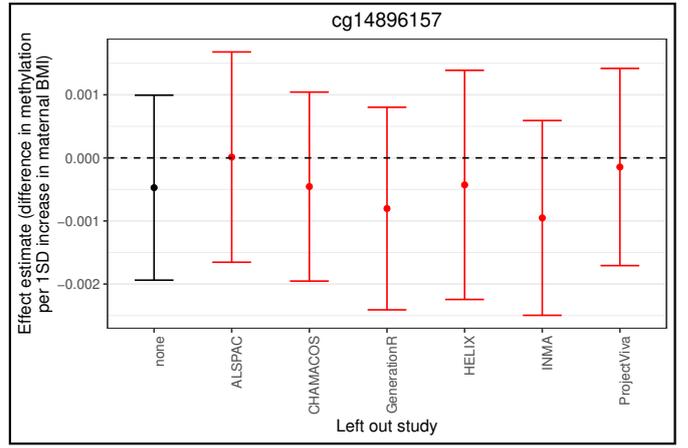
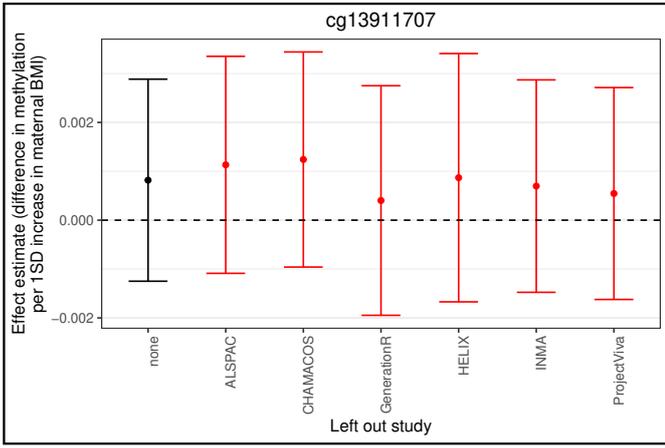


Paternal BMI adjusted for maternal BMI – male offspring only: page 10

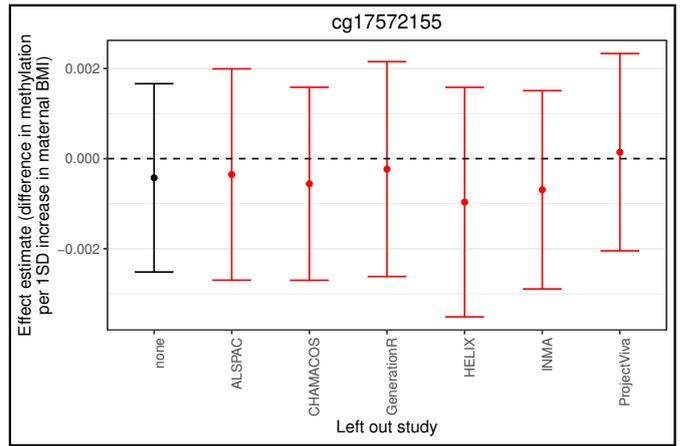
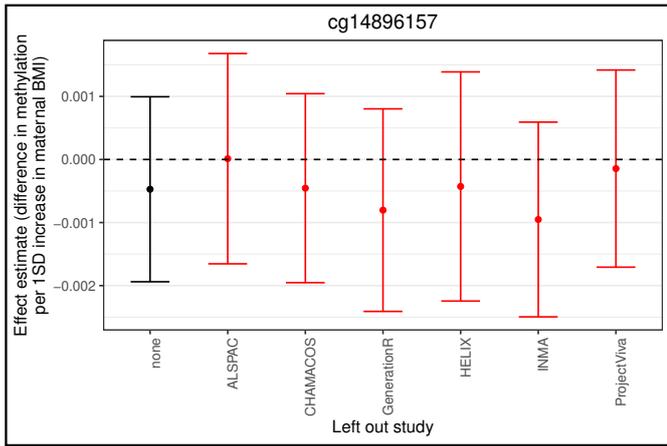
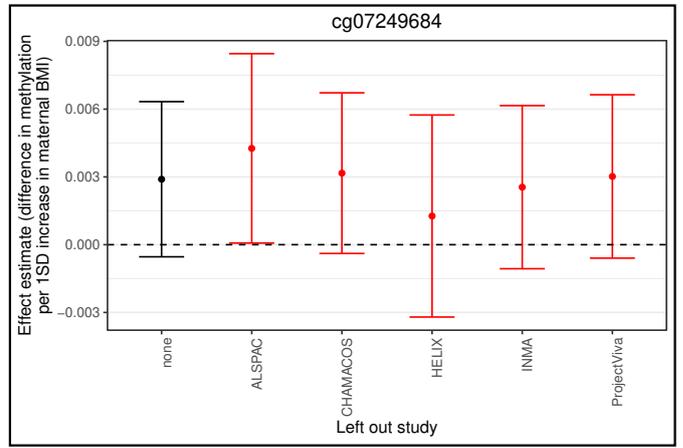
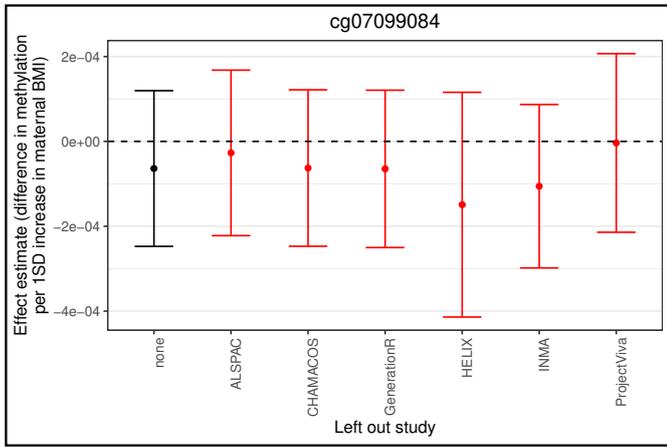
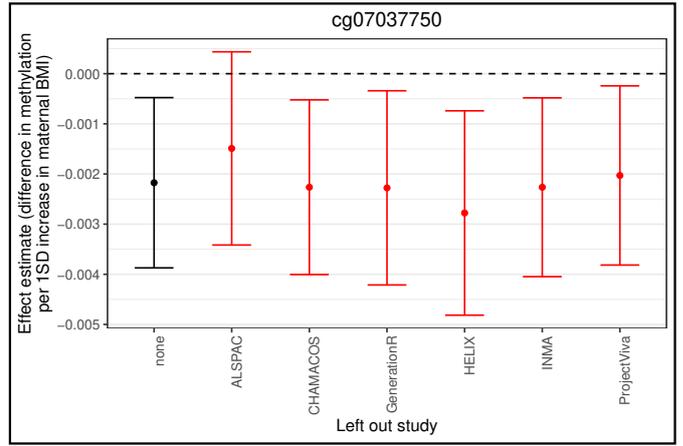
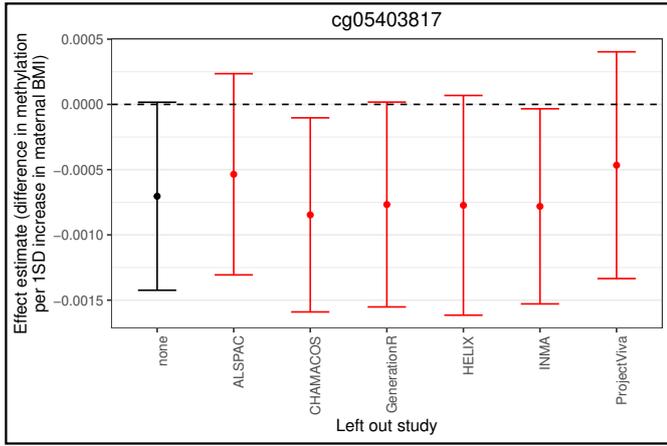
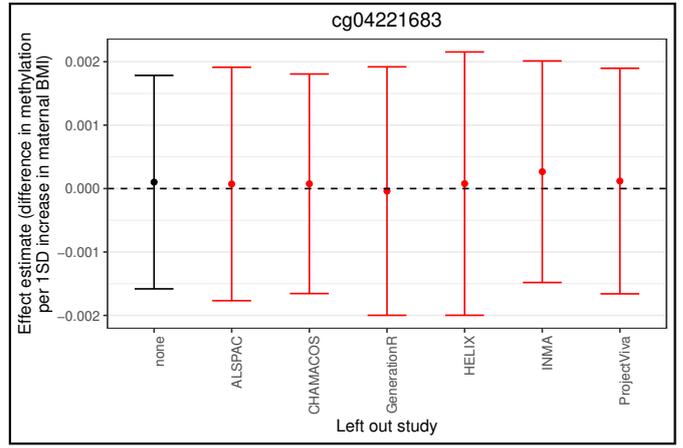
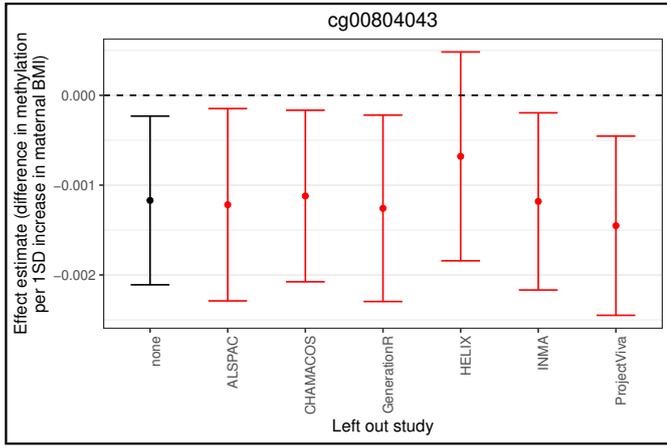


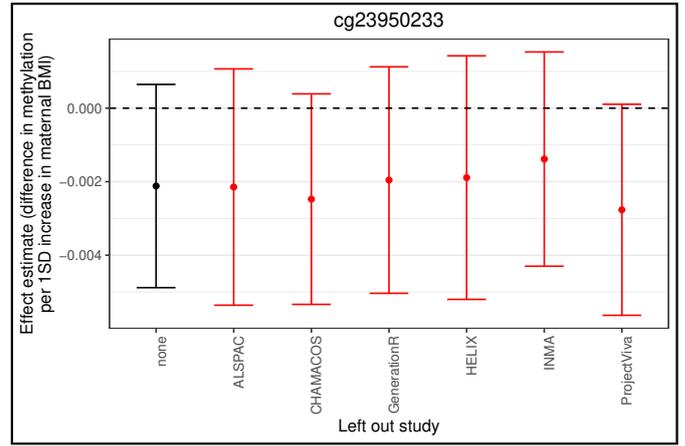
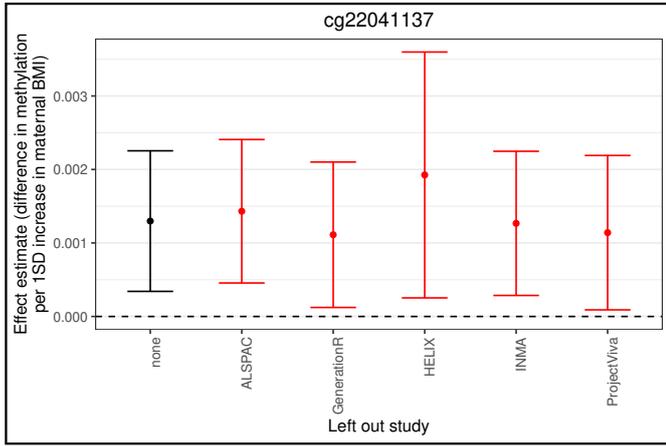
Maternal BMI (unadjusted for paternal BMI): pages 12-13



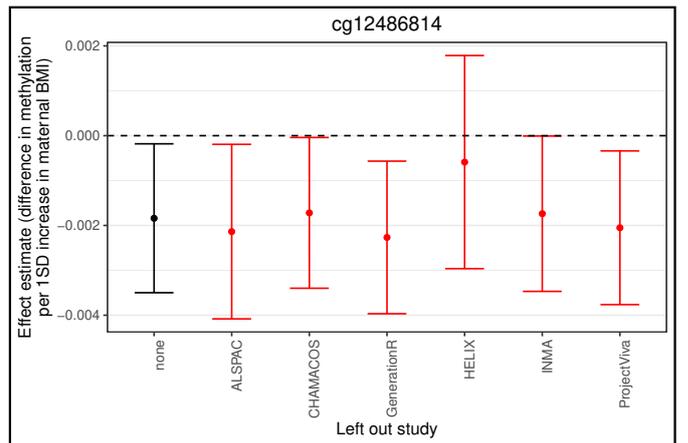
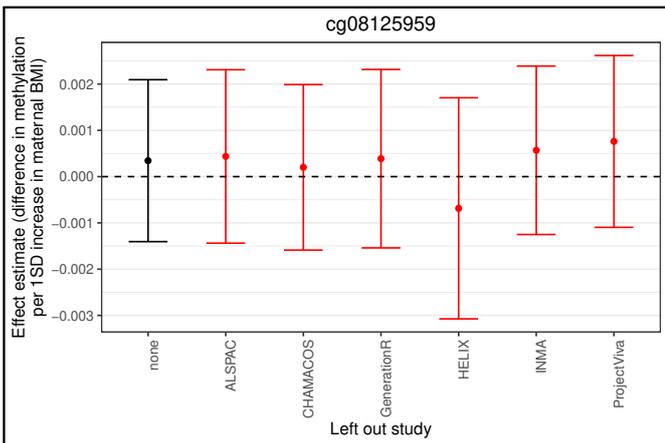
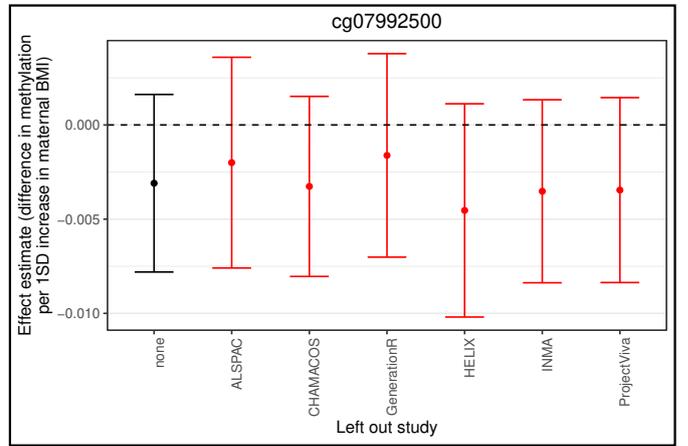
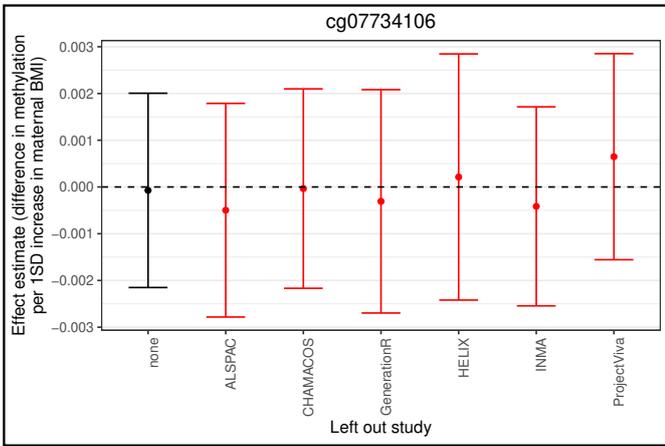
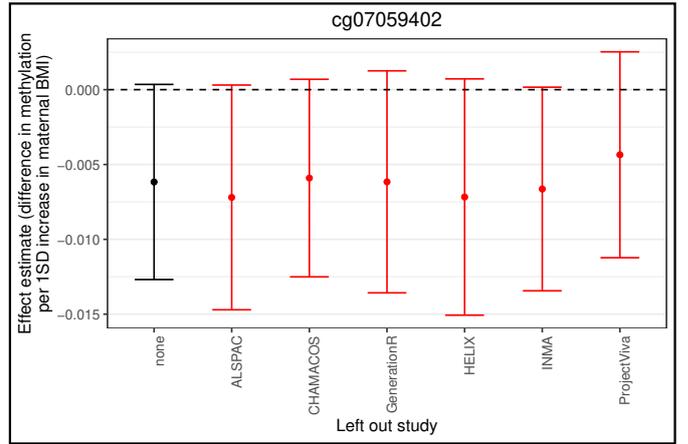
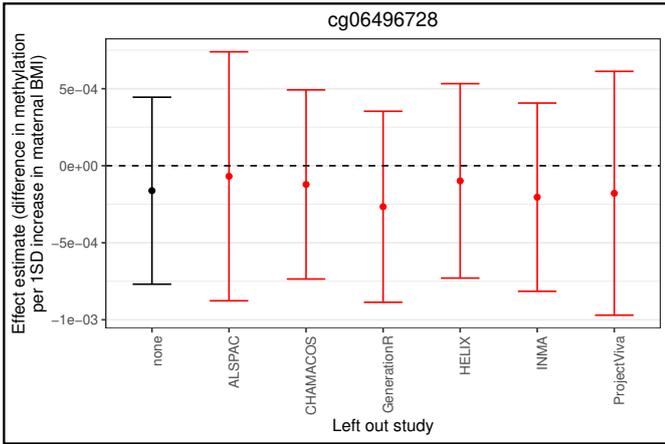
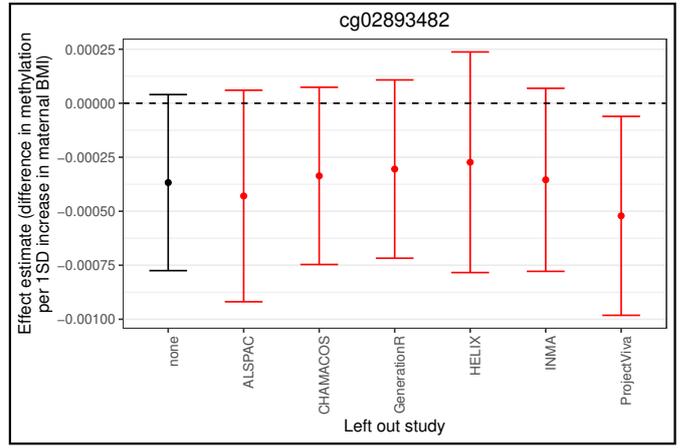
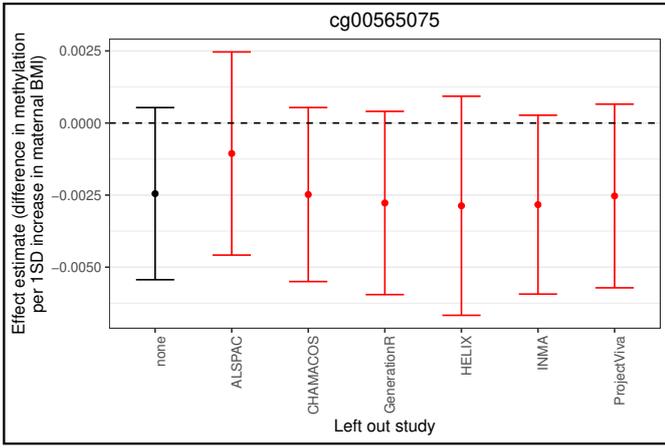


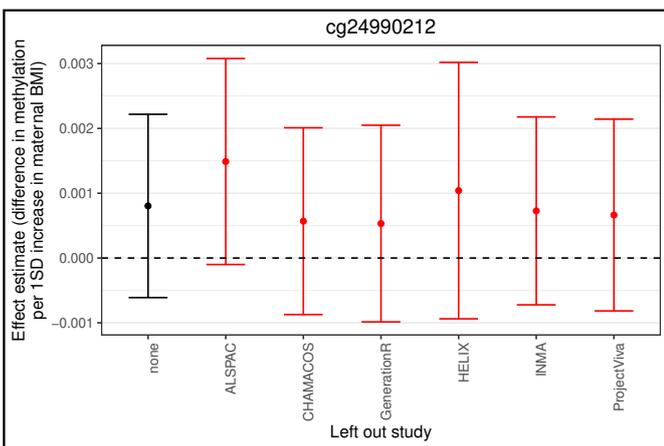
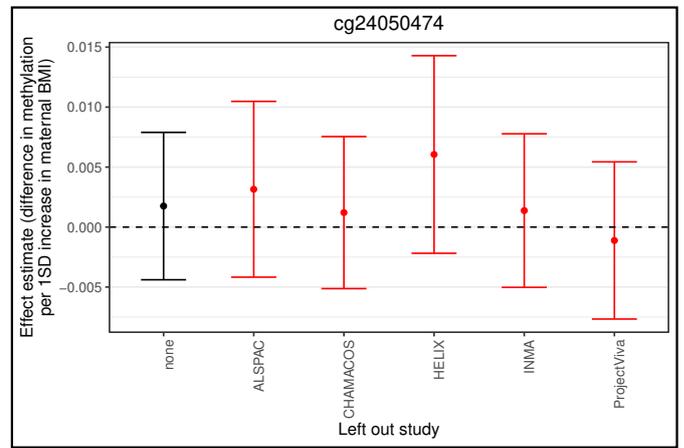
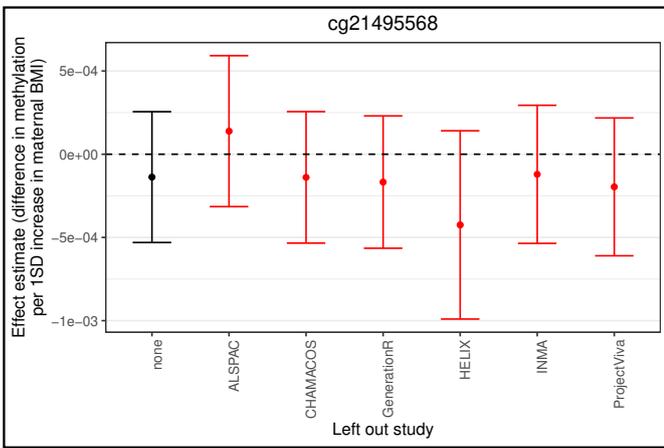
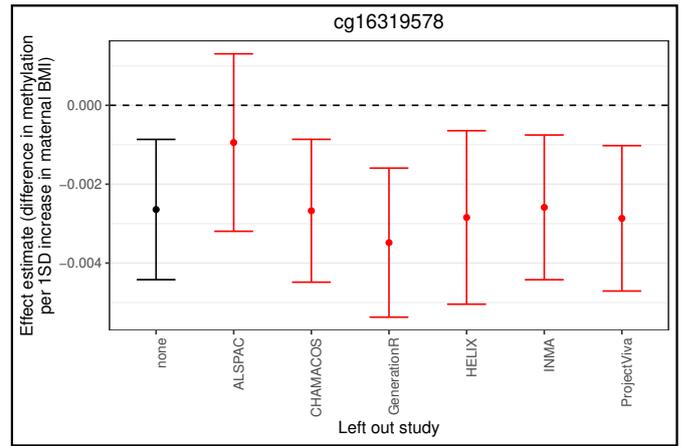
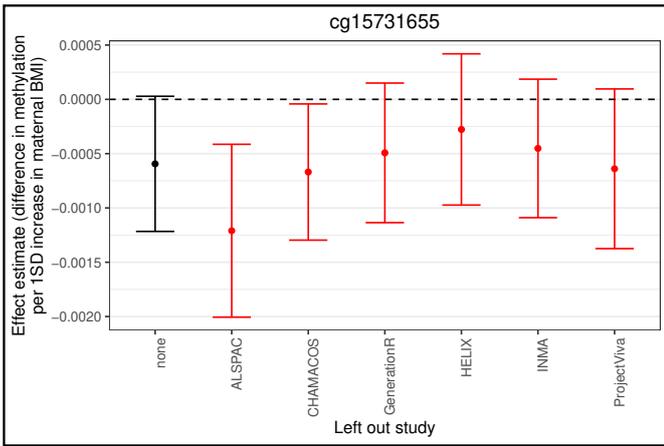
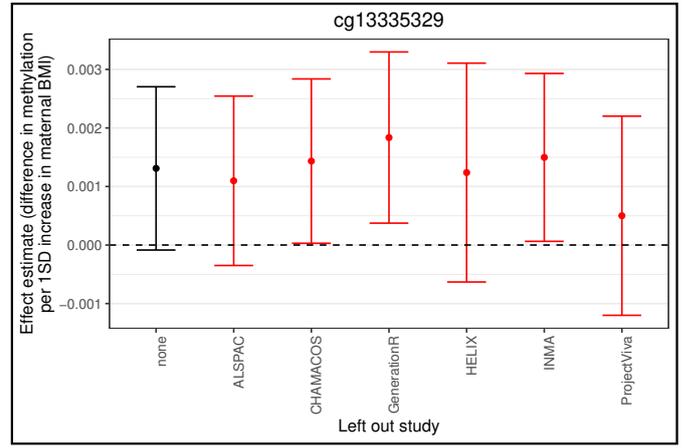
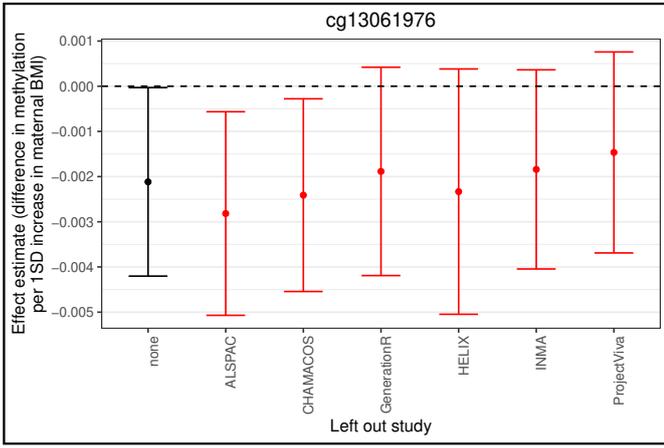
Maternal BMI (adjusted for paternal BMI): pages 15-16



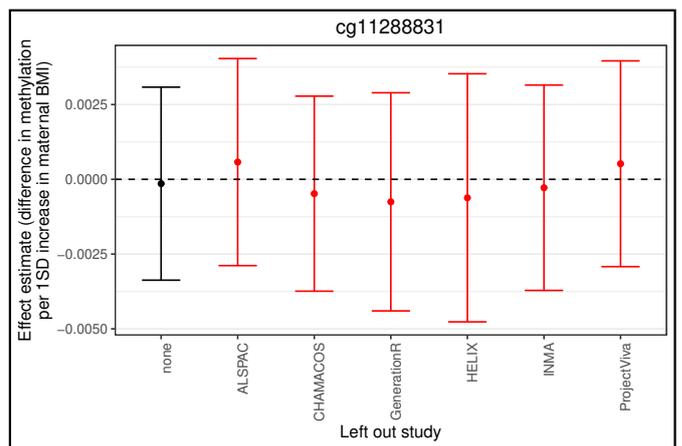
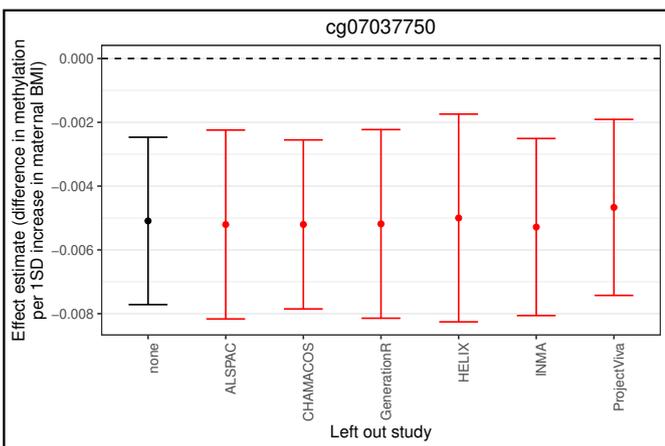
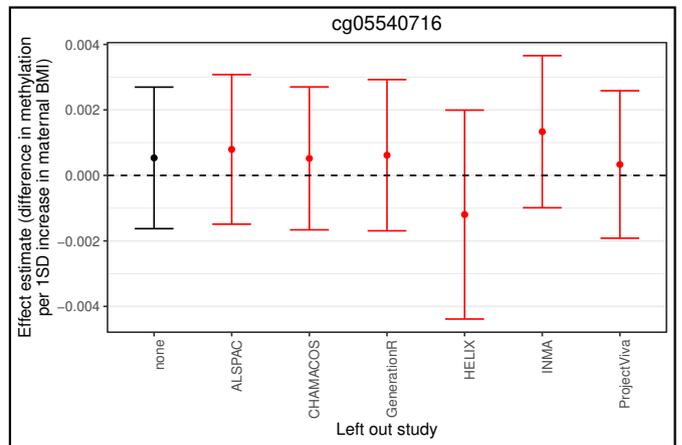
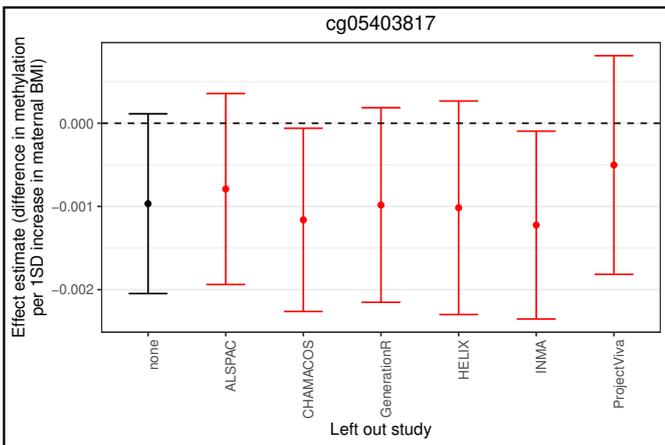
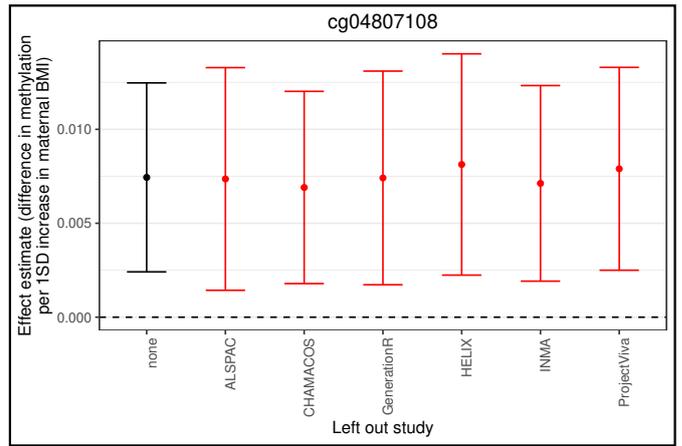
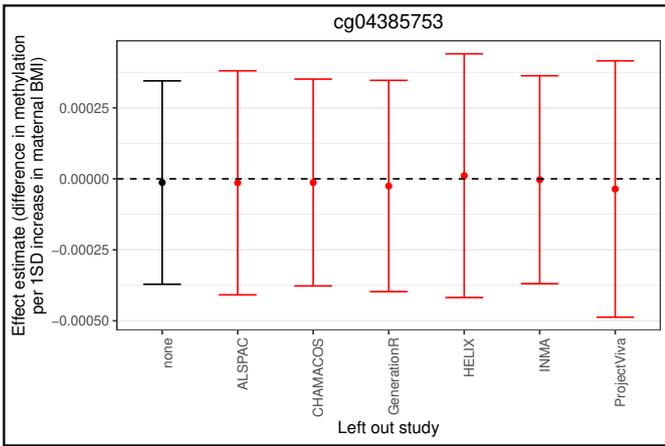
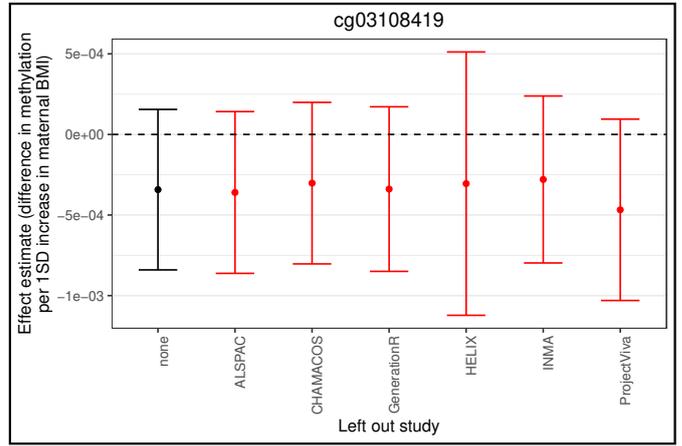
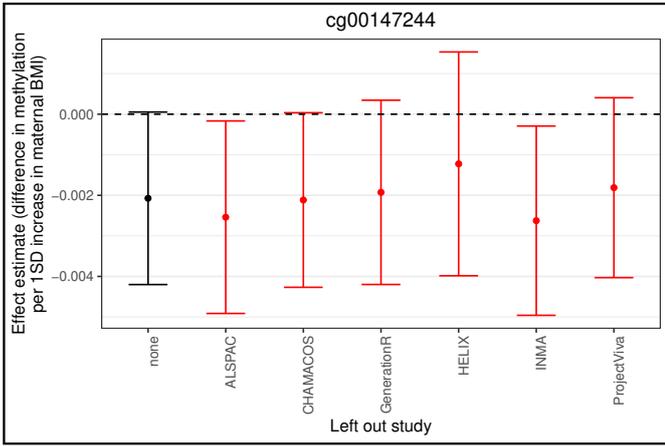


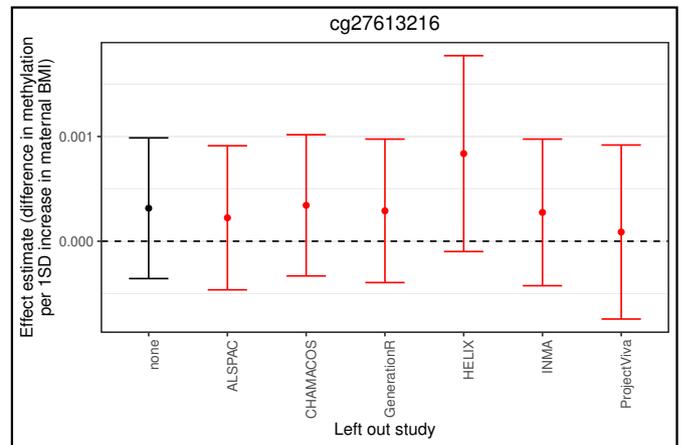
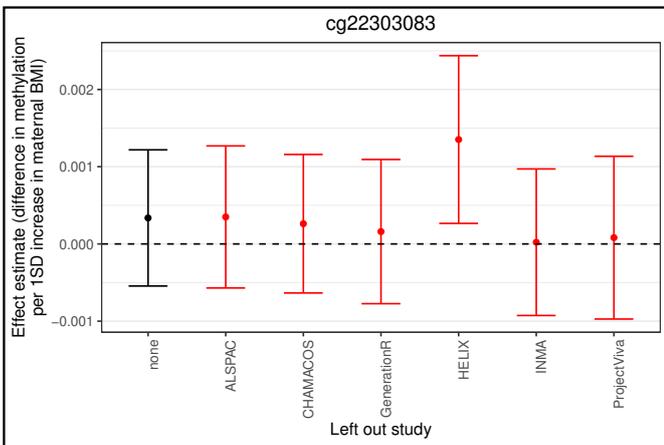
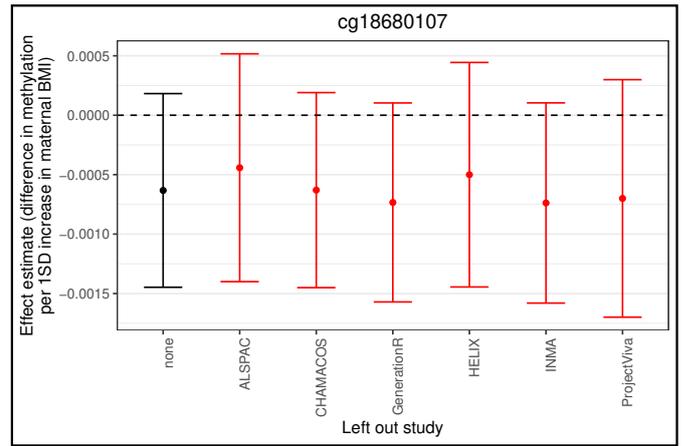
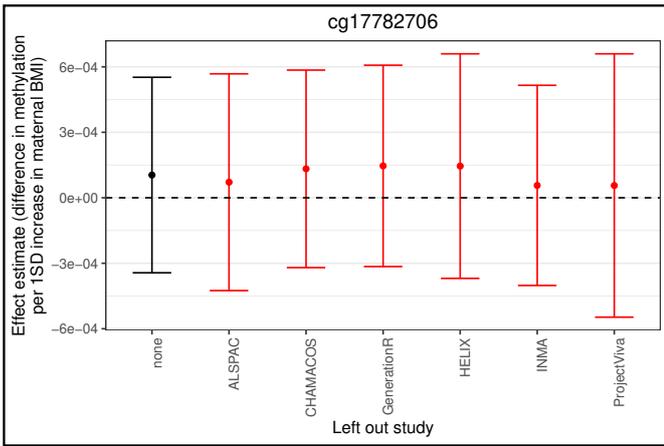
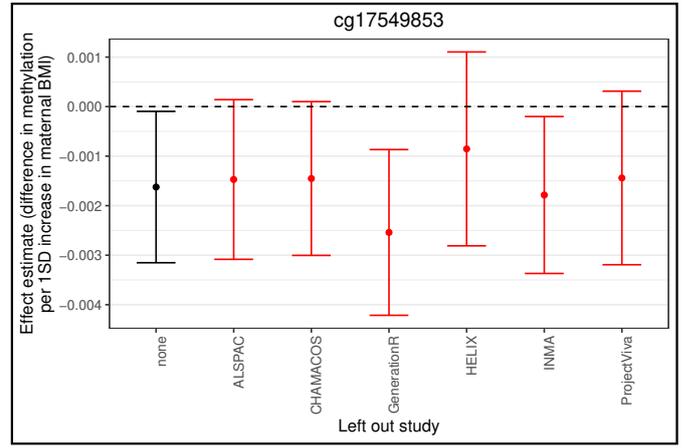
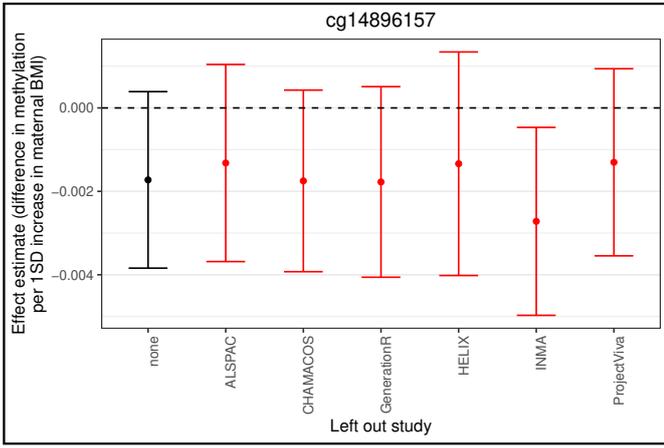
Maternal BMI adjusted for paternal BMI – female offspring only:
pages 18-19





Maternal BMI adjusted for paternal BMI – male offspring only: pages 21-22





Meta-regression tables: pages 23-25

Paternal BMI (unadjusted for maternal BMI)

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg09934789	0.005	-0.024	0.034	0.728
cg12082202	0.012	-0.006	0.030	0.192
cg12294260	0.009	-0.033	0.051	0.672
cg14235768	-0.036	-0.123	0.051	0.415
cg24533565	0.031	-0.001	0.063	0.059
cg27201301	0.010	-0.117	0.138	0.875

Paternal BMI (adjusted for maternal BMI)

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg12082202	0.012	-0.006	0.030	0.192
cg17330838	0.072	-0.146	0.289	0.519
cg27201301	0.010	-0.117	0.138	0.875

Paternal BMI adjusted for maternal BMI – female offspring only

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg05718625	0.016	-0.028	0.060	0.470
cg06644553	-0.064	-0.166	0.037	0.215
cg12082202	-0.011	-0.042	0.020	0.495
cg16681820	0.016	-0.012	0.044	0.253
cg18473137	0.008	-0.154	0.170	0.921
cg19339146	0.144	-0.046	0.334	0.138
cg21792150	0.082	-0.018	0.182	0.107
cg21886089	0.097	-0.058	0.253	0.219
cg27201301	-0.097	-0.310	0.116	0.371

Paternal BMI adjusted for maternal BMI – male offspring only

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg05376601	-0.029	-0.095	0.037	0.392
cg07984358	0.089	-0.091	0.268	0.334
cg08614638	0.053	-0.109	0.215	0.520
cg09861496	-0.009	-0.051	0.032	0.658
cg13422275	-0.010	-0.096	0.076	0.819
cg14738170	-0.022	-0.257	0.214	0.858
cg14779797	0.026	-0.067	0.119	0.587

Maternal BMI (unadjusted for paternal BMI)

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg00673189	-0.008	-0.051	0.036	0.729
cg01532392	0.022	-0.079	0.124	0.665
cg01596892	-0.001	-0.029	0.028	0.965
cg02680669	0.145	-0.012	0.303	0.071
cg03046346	0.004	-0.037	0.044	0.866
cg04221683	0.029	-0.109	0.166	0.683
cg07099084	-0.009	-0.028	0.009	0.333
cg10239860	0.038	-0.031	0.108	0.279
cg13911707	-0.082	-0.232	0.068	0.282
cg14896157	-0.113	-0.228	0.002	0.055
cg19007101	-0.013	-0.062	0.037	0.615
cg23634624	-0.016	-0.063	0.031	0.512
cg23950233	0.152	-0.058	0.362	0.157

Maternal BMI (adjusted for paternal BMI)

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg00804043	-0.032	-0.032	-0.107	0.043
cg04221683	0.029	0.029	-0.109	0.166
cg05403817	-0.002	-0.002	-0.064	0.060
cg07037750	0.000	0.000	-0.135	0.134
cg07099084	-0.009	-0.009	-0.028	0.009
cg07249684	-0.072	-0.072	-0.365	0.222
cg14896157	-0.113	-0.113	-0.228	0.002
cg17572155	0.001	0.001	-0.160	0.162
cg22041137	-0.055	-0.055	-0.152	0.042
cg23950233	0.152	0.152	-0.058	0.362

Maternal BMI adjusted for paternal BMI – female offspring only

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg00565075	-0.120	-0.385	0.145	0.375
cg02893482	0.000	-0.039	0.038	0.988
cg06496728	-0.106	-0.206	-0.006	0.038
cg07059402	-0.050	-0.593	0.494	0.857
cg07734106	-0.099	-0.287	0.089	0.300
cg07992500	0.069	-0.353	0.491	0.749
cg08125959	0.097	-0.046	0.241	0.184
cg12486814	-0.059	-0.234	0.116	0.508
cg13061976	0.116	-0.056	0.288	0.185
cg13335329	0.085	-0.110	0.281	0.393
cg15731655	0.089	-0.004	0.183	0.060
cg16319578	-0.049	-0.279	0.181	0.676
cg21495568	-0.001	-0.047	0.046	0.982
cg24050474	-0.121	-0.860	0.618	0.748
cg24990212	-0.022	-0.182	0.139	0.789

Maternal BMI adjusted for paternal BMI – male offspring only

CpG	Effect estimate (change in EWAS effect size per year)	Lower limit to CI	Upper limit to CI	P-value
cg00147244	-0.068	-0.211	0.076	0.357
cg03108419	0.007	-0.037	0.051	0.745
cg04385753	0.000	-0.038	0.038	0.996
cg04807108	-0.027	-0.470	0.416	0.906
cg05403817	-0.028	-0.122	0.066	0.555
cg05540716	0.146	-0.009	0.300	0.064
cg07037750	-0.023	-0.228	0.181	0.822
cg11288831	-0.012	-0.254	0.231	0.924
cg14896157	-0.165	-0.320	-0.009	0.039
cg17549853	-0.158	-0.290	-0.025	0.020
cg17782706	-0.021	-0.071	0.029	0.409
cg18680107	-0.057	-0.140	0.025	0.171
cg22303083	-0.072	-0.149	0.006	0.072
cg27613216	-0.034	-0.095	0.027	0.272