

## **Supplemental Material 4 - Significant Results of Genus Level Differences in Delivery Mode, Feeding and Ethnicity Covariates**

MaAsLin2 was used to detect differences in bacterial relative abundances at the genus level. 271 samples from day 7 and week 4 were included and 367 genera were tested for differential relative abundances with respect to delivery mode (vaginal vs caesarean), feeding (breastmilk only vs formula +/- breastmilk) and prioritised ethnicity (Māori vs Pacific vs Asian vs Indian vs Other vs European). The coefficient indicates the effect size and its sign indicates whether the bacterial genus had higher (positive value) or lower (negative value) relative abundance in the group in question (indicated by column Group) compared to the other group(s). The q-value column is the FDR-corrected p-value, and results where  $q < 0.05$  were deemed to be statistically significant.

### **Delivery Mode**

Bacterial Genus	Group	Coefficient	stderr	p-value	q-value
Bacteroides	Vaginal	1.484903407	0.203634231	1.6591E-11	3.87E-10
Veillonella	Vaginal	-1.253444208	0.169624831	1.1466E-11	3.87E-10
Enterococcus	Vaginal	-1.185876636	0.175303033	2.874E-10	5.03E-09
Parabacteroides	Vaginal	1.122927588	0.203390251	1.4605E-07	1.7E-06
Clostridium.sensu.stricto.1	Vaginal	-0.858362613	0.204326769	4.6431E-05	0.000271
Haemophilus	Vaginal	-0.783794061	0.185905505	4.4766E-05	0.000271
Bifidobacterium	Vaginal	0.791127616	0.210265292	0.00024204	0.001149
Bilophila	Vaginal	0.392406681	0.114290895	0.00076985	0.00317
Collinsella	Vaginal	0.50545358	0.152365647	0.0011386	0.004195
Escherichia.Shigella	Vaginal	0.585687854	0.187399669	0.00213301	0.00711
Sutterella	Vaginal	0.470008583	0.156003883	0.00305191	0.009711
Phascolarctobacterium	Vaginal	0.380632441	0.127310254	0.00324824	0.009886
Eggerthella	Vaginal	0.263232746	0.096847867	0.007318	0.019702
Kluyvera	Vaginal	-0.195771517	0.073045253	0.00815054	0.021131

### **Feeding**

Note – exclusive formula & formula with breastmilk (combination) are collapsed into one group.

Bacterial Genus	Group	coefficient	stderr	p-value	q-value
Staphylococcus	Formula +/- breastmilk	-0.68361	0.101556	1.31E-10	4.58E-09
Veillonella	Formula +/- breastmilk	0.776903	0.175114	1.34E-05	0.000221
Gemella	Formula +/- breastmilk	-0.50822	0.116521	1.96E-05	0.000221
Haemophilus	Formula +/- breastmilk	-0.48908	0.177596	0.006306	0.027591

### **Prioritized Ethnicity**

Note - Pacific ethnicity was included in Other due to low numbers.

Bacterial Genus	Group	coefficient	stderr	p-value	q-value
Enterococcus	Indian	1.283086	0.285437	1.44E-05	0.000803774
Veillonella	Indian	1.121731	0.293369	0.000198	0.003849457