

Basic Bioinformatics Report

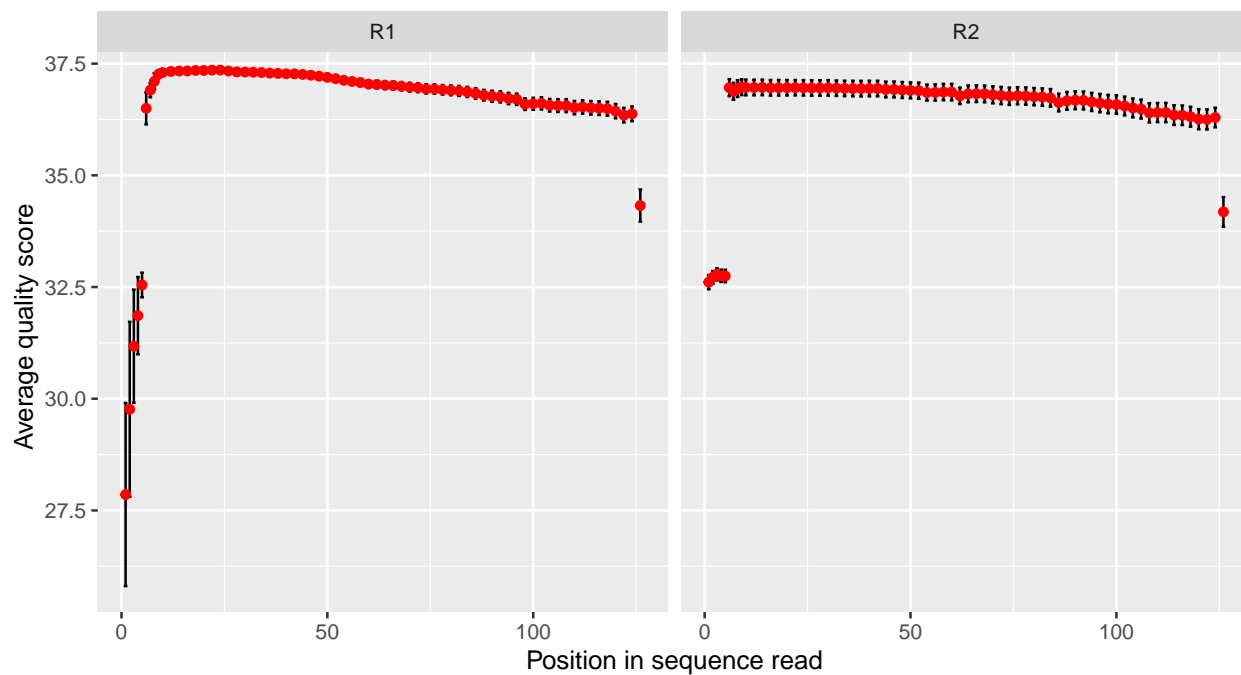
January 11, 2019

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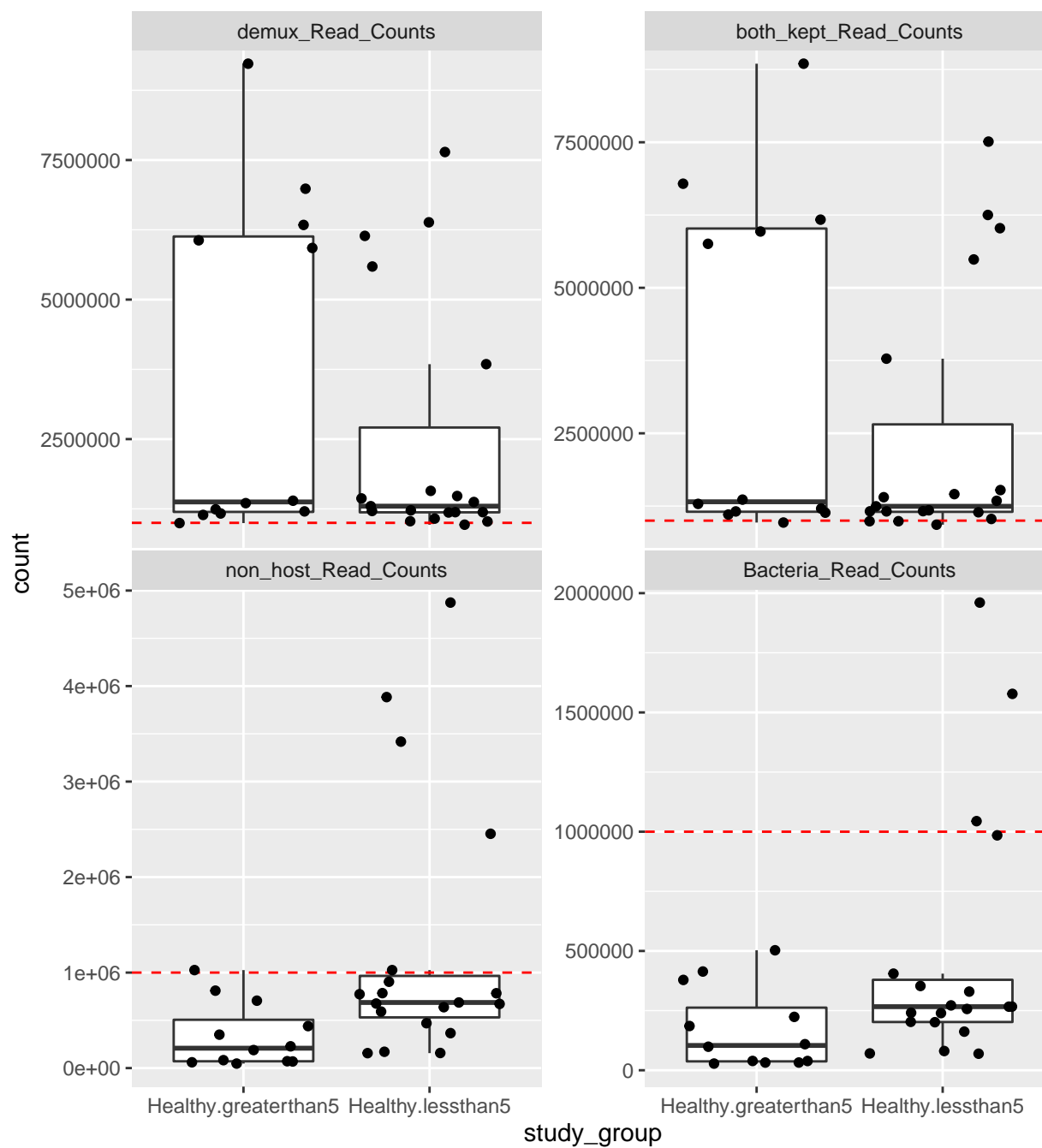
Average nucleotide quality after adapter trimming and quality control

Average nucleotide quality score after trimming adapter and filtering low quality (only forward read or reverse read or neither was kept after trimmomatic) read pairs is given. Red dots represent the mean quality score and vertical line segments represent mean \pm sample standard deviation.



Read Counts

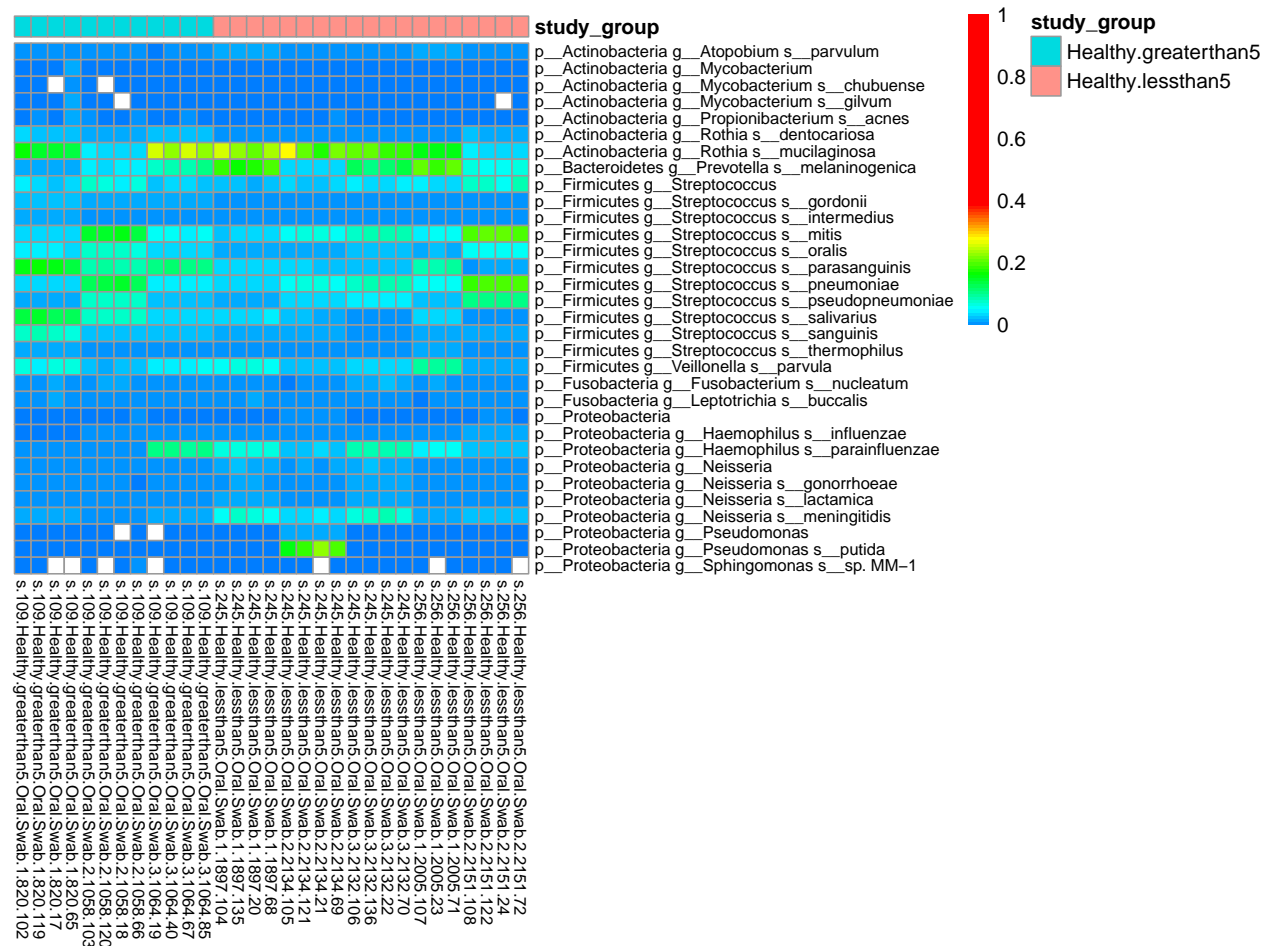
Red dashed lines represent 1 million counts.



Heatmap

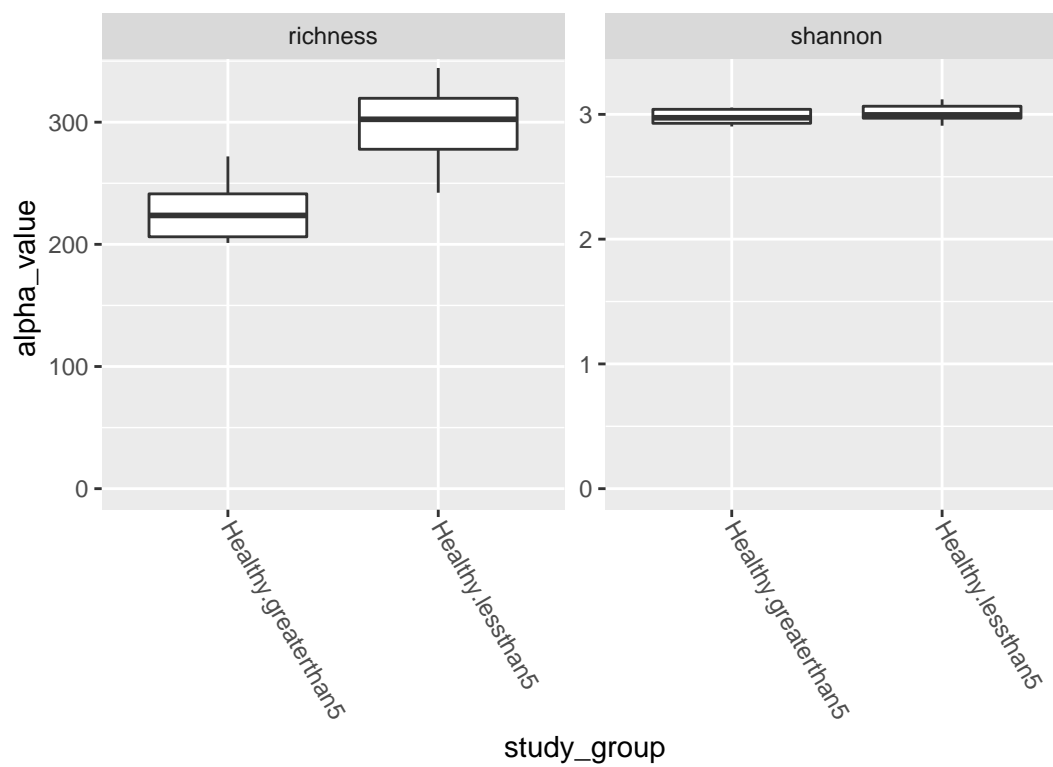
Each column of the heatmap represents one sample and each row represents one taxon. Taxa were included in the chart if the abundance in any sample exceeded 1%.

The chart is colored white if taxa were not observed in the sample, dark blue if taxa were observed at very low abundance. This allows the reader to quickly survey presence/absence. Abundance values exceeding 40% are colored red, indicating an extremely dominant species.



Alpha diversity

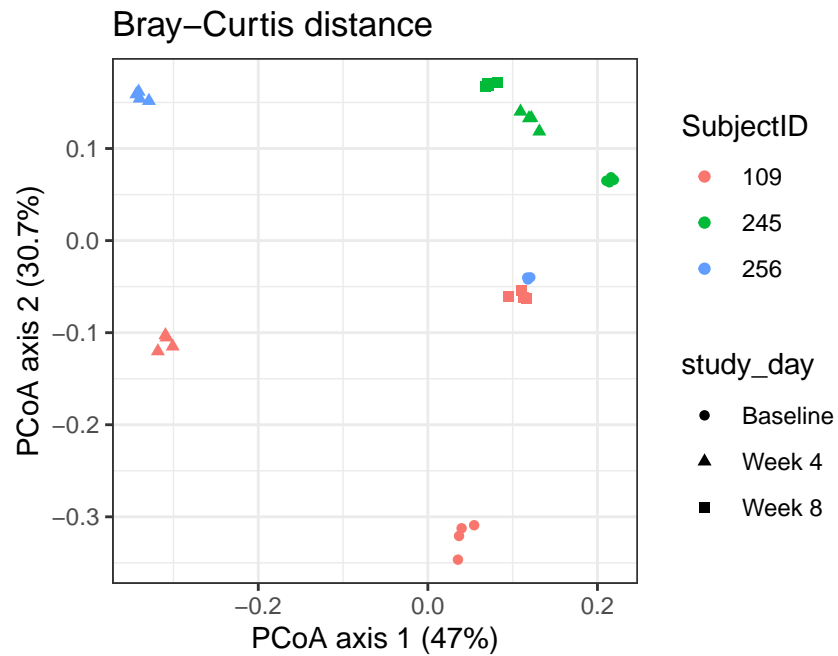
Alpha diversity (within sample diversity) was assessed by richness and Shannon index.



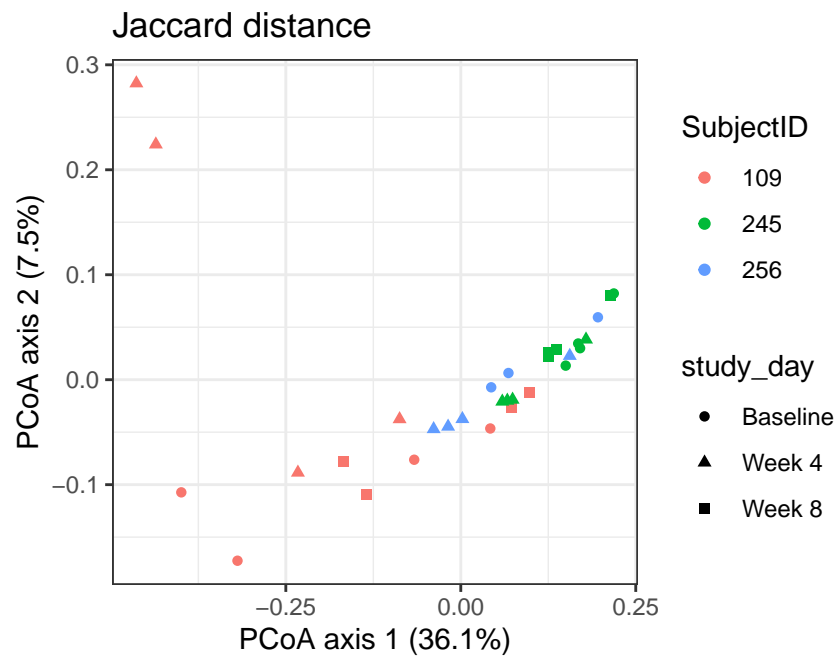
Beta diversity

Beta diversity (similarity between samples) was assessed by Bray-Curtis distance and Jaccard distance.

Ordination based on Bray-Curtis distance



Ordination based on Jaccard distance



Appendix

Number of reads before and after trimmming Illumina adapter sequences with Trimmomatic.

Table 1: number of reads before and after Trimmomatic (continued below)

SampleID	both_kept	dropped
s.245.Healthy.less than 5.Oral.Swab.2.2134.21	930207	17490
s.109.Healthy.greater than 5.Oral.Swab.2.1058.18	967291	10080
s.245.Healthy.less than 5.Oral.Swab.3.2132.136	989662	17416
s.245.Healthy.less than 5.Oral.Swab.2.2134.121	989882	20931
s.256.Healthy.less than 5.Oral.Swab.2.2151.122	1028539	21317
s.109.Healthy.greater than 5.Oral.Swab.1.820.17	1104548	14820
s.109.Healthy.greater than 5.Oral.Swab.1.820.65	1136581	22747
s.245.Healthy.less than 5.Oral.Swab.3.2132.22	1143591	22040
s.109.Healthy.greater than 5.Oral.Swab.3.1064.19	1158058	18087
s.245.Healthy.less than 5.Oral.Swab.2.2134.69	1158808	23889
s.245.Healthy.less than 5.Oral.Swab.1.1897.135	1159800	32335
s.245.Healthy.less than 5.Oral.Swab.3.2132.70	1162884	21788
s.245.Healthy.less than 5.Oral.Swab.1.1897.20	1177761	23482
s.109.Healthy.greater than 5.Oral.Swab.2.1058.66	1207229	27419
s.256.Healthy.less than 5.Oral.Swab.1.2005.23	1246189	20328
s.109.Healthy.greater than 5.Oral.Swab.2.1058.120	1287595	38420
s.245.Healthy.less than 5.Oral.Swab.1.1897.68	1340617	23657
s.109.Healthy.greater than 5.Oral.Swab.3.1064.67	1360513	26370
s.256.Healthy.less than 5.Oral.Swab.2.2151.72	1402049	26125
s.256.Healthy.less than 5.Oral.Swab.1.2005.71	1455529	15696
s.256.Healthy.less than 5.Oral.Swab.2.2151.24	1524725	20165
s.245.Healthy.less than 5.Oral.Swab.2.2134.105	3782153	32445
s.245.Healthy.less than 5.Oral.Swab.3.2132.106	5486617	69581
s.109.Healthy.greater than 5.Oral.Swab.1.820.102	5755451	135297
s.109.Healthy.greater than 5.Oral.Swab.3.1064.85	5966999	49826
s.245.Healthy.less than 5.Oral.Swab.1.1897.104	6023686	77443
s.109.Healthy.greater than 5.Oral.Swab.2.1058.103	6170523	128757
s.256.Healthy.less than 5.Oral.Swab.2.2151.108	6251011	89193
s.109.Healthy.greater than 5.Oral.Swab.3.1064.40	6788176	85346
s.256.Healthy.less than 5.Oral.Swab.1.2005.107	7511006	82288
s.109.Healthy.greater than 5.Oral.Swab.1.820.119	8849598	202469

false	fwd_only	input	rev_only	true
672046	17658	966780	1425	258161
47385	16708	995502	1423	919906
637585	15472	1024121	1571	352077
773648	17208	1029267	1246	216234
157895	24576	1076162	1730	870644
69358	20884	1141847	1595	1035190
82893	7755	1167868	785	1053688
591908	18247	1185554	1676	551683
188481	27355	1205523	2023	969577

false	fwd_only	input	rev_only	true
904067	7907	1191442	838	254741
686946	18663	1212472	1674	472854
675966	5958	1191528	898	486918
783755	20769	1223792	1780	394006
71883	6866	1242313	799	1135346
365936	30299	1298824	2008	880253
60614	24945	1352667	1707	1226981
1025966	7694	1373155	1187	314651
227999	8471	1396344	990	1132514
156550	8027	1437145	944	1245499
470002	8495	1480740	1020	985527
170818	25901	1573007	2216	1353907
3418202	24542	3842984	3844	363951
3884555	32205	5592573	4170	1602062
439695	30383	5924686	3555	5315756
810803	40352	6061683	4506	5156196
4874260	35357	6141020	4534	1149426
350284	34378	6337453	3795	5820239
784699	39849	6384480	4427	5466312
1026099	104437	6986211	8252	5762077
2453407	45313	7643758	5151	5057599
705754	162404	9226165	11694	8143844

Number of reads before and after filtering of host genome sequence.

Table 3: Number of reads before and after removing host sequences
(continued below)

SampleID	Host reads	Non-host reads
s.109.Healthy.greaterthan5.Oral.Swab.2.1058.18	919906	47385
s.109.Healthy.greaterthan5.Oral.Swab.2.1058.120	1226981	60614
s.109.Healthy.greaterthan5.Oral.Swab.1.820.17	1035190	69358
s.109.Healthy.greaterthan5.Oral.Swab.2.1058.66	1135346	71883
s.109.Healthy.greaterthan5.Oral.Swab.1.820.65	1053688	82893
s.256.Healthy.less than5.Oral.Swab.2.2151.72	1245499	156550
s.256.Healthy.less than5.Oral.Swab.2.2151.122	870644	157895
s.256.Healthy.less than5.Oral.Swab.2.2151.24	1353907	170818
s.109.Healthy.greaterthan5.Oral.Swab.3.1064.19	969577	188481
s.109.Healthy.greaterthan5.Oral.Swab.3.1064.67	1132514	227999
s.109.Healthy.greaterthan5.Oral.Swab.2.1058.103	5820239	350284
s.256.Healthy.less than5.Oral.Swab.1.2005.23	880253	365936
s.109.Healthy.greaterthan5.Oral.Swab.1.820.102	5315756	439695
s.256.Healthy.less than5.Oral.Swab.1.2005.71	985527	470002
s.245.Healthy.less than5.Oral.Swab.3.2132.22	551683	591908
s.245.Healthy.less than5.Oral.Swab.3.2132.136	352077	637585
s.245.Healthy.less than5.Oral.Swab.2.2134.21	258161	672046
s.245.Healthy.less than5.Oral.Swab.3.2132.70	486918	675966
s.245.Healthy.less than5.Oral.Swab.1.1897.135	472854	686946
s.109.Healthy.greaterthan5.Oral.Swab.1.820.119	8143844	705754
s.245.Healthy.less than5.Oral.Swab.2.2134.121	216234	773648
s.245.Healthy.less than5.Oral.Swab.1.1897.20	394006	783755
s.256.Healthy.less than5.Oral.Swab.2.2151.108	5466312	784699
s.109.Healthy.greaterthan5.Oral.Swab.3.1064.85	5156196	810803
s.245.Healthy.less than5.Oral.Swab.2.2134.69	254741	904067
s.245.Healthy.less than5.Oral.Swab.1.1897.68	314651	1025966
s.109.Healthy.greaterthan5.Oral.Swab.3.1064.40	5762077	1026099
s.256.Healthy.less than5.Oral.Swab.1.2005.107	5057599	2453407
s.245.Healthy.less than5.Oral.Swab.2.2134.105	363951	3418202
s.245.Healthy.less than5.Oral.Swab.3.2132.106	1602062	3884555
s.245.Healthy.less than5.Oral.Swab.1.1897.104	1149426	4874260

Percent host reads

95.1
95.29
93.72
94.05
92.71
88.83
84.65
88.8
83.72
83.24
94.32
70.64

Percent host reads
92.36
67.71
48.24
35.58
27.75
41.87
40.77
92.03
21.84
33.45
87.45
86.41
21.98
23.47
84.88
67.34
9.62
29.2
19.08