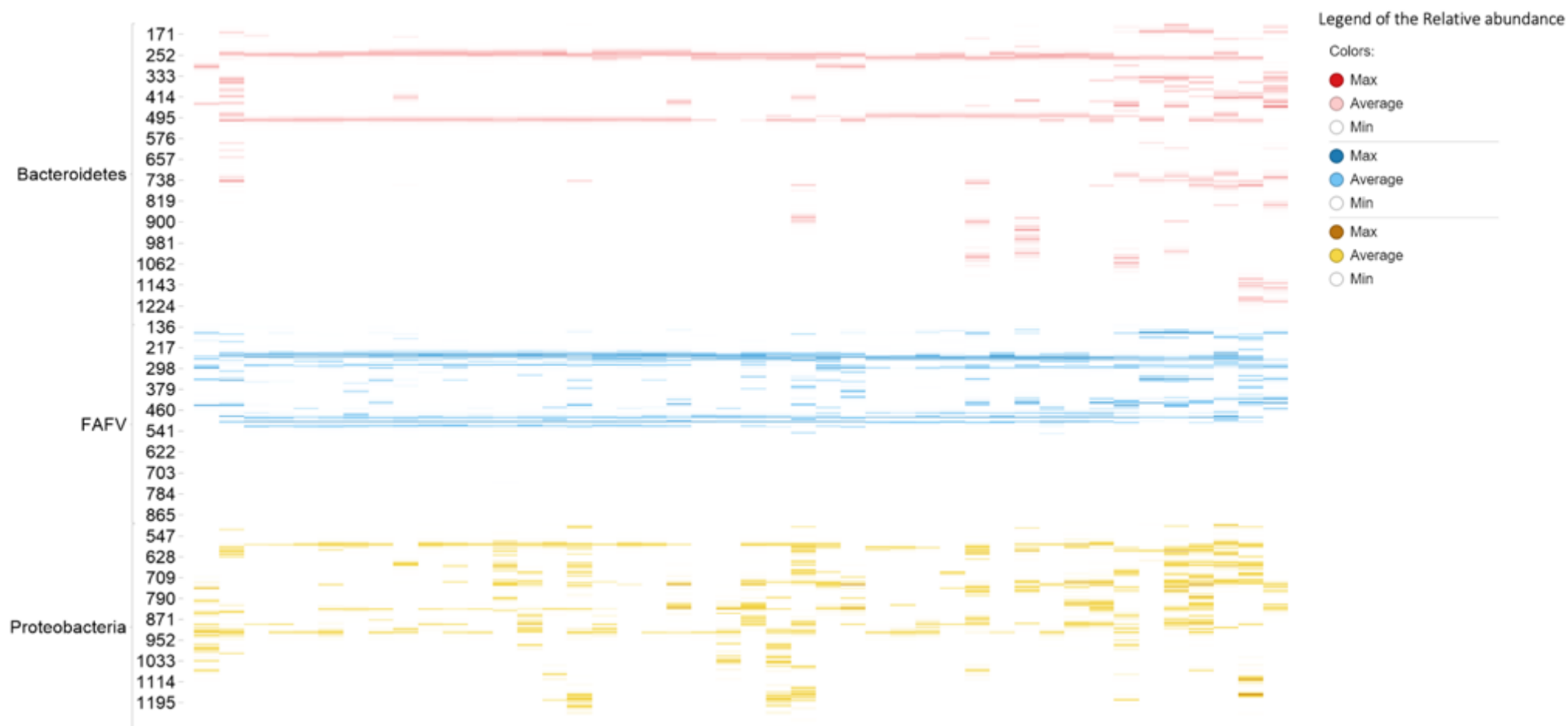
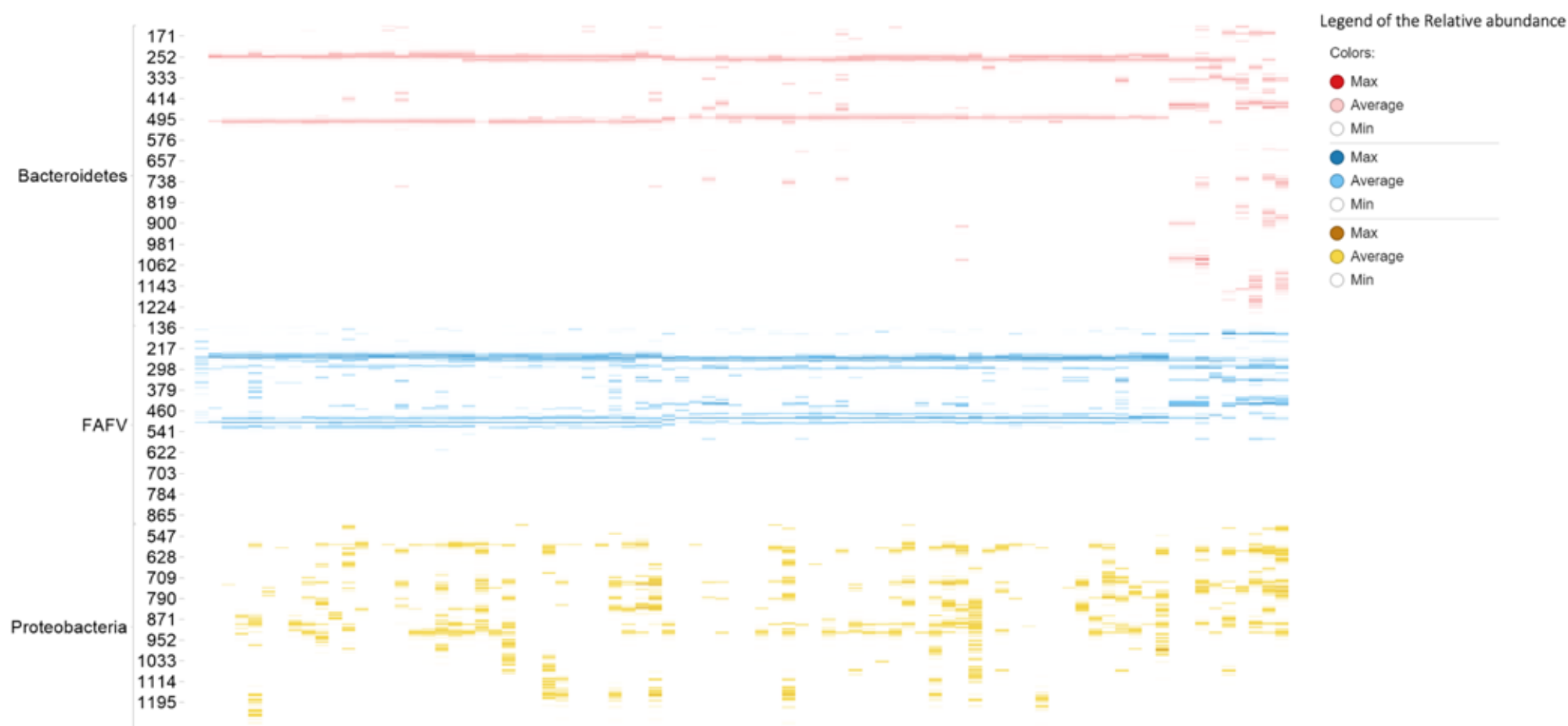




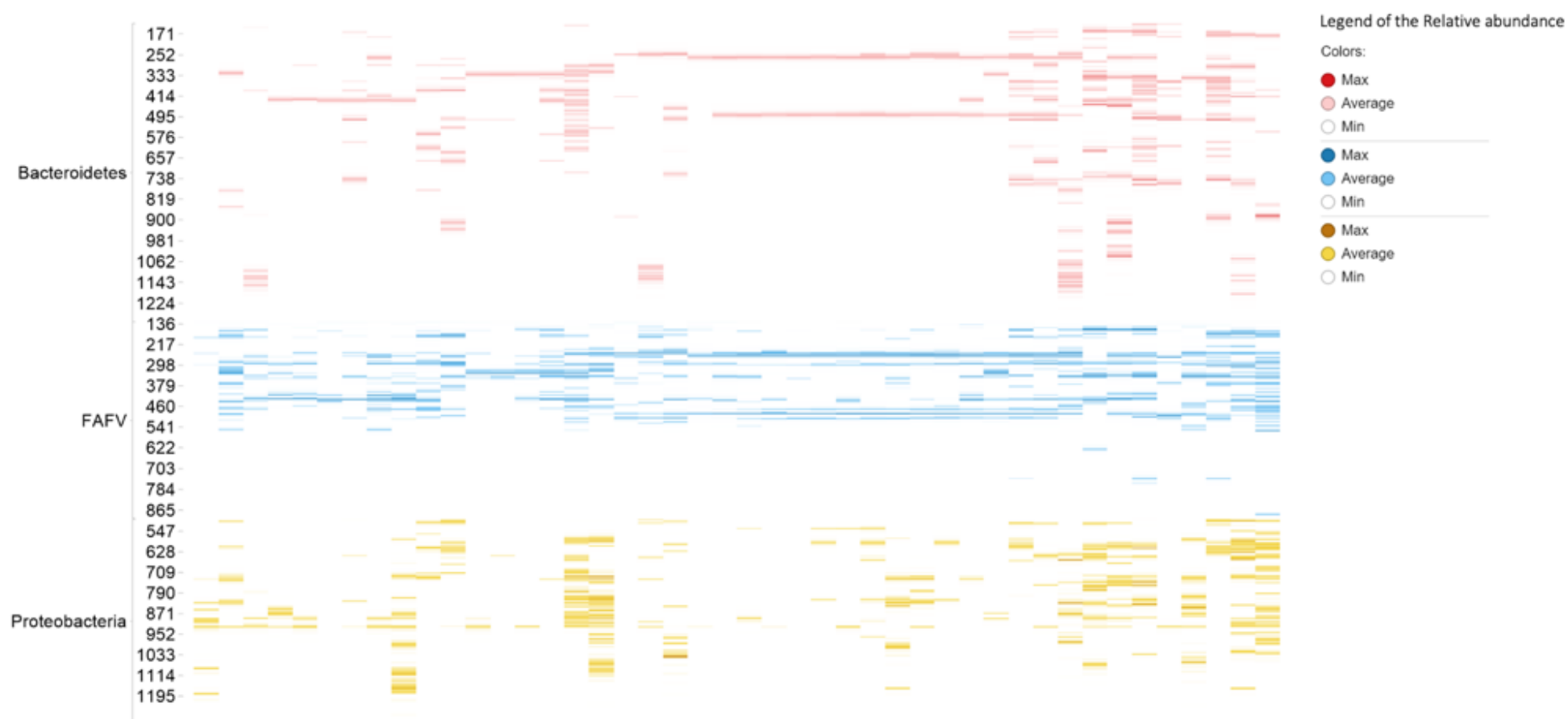
**Figure S1.** Number of vaginal samples at each collection point. In total 170 vaginal samples from 90 women were tested and analysed, 44 vaginal samples at < 20 weeks GA, 82 at ≥ 20 weeks GA pregnancy collection point and 44 post-delivery.



**Figure S2.** Cluster analysis 44 vaginal samples collected during pregnancy at fist pregnancy collection. Each column represents a sample; each row represents a bacterial species corresponding to a specific nucleotide number (bacteria from the phyla *Bacteroidetes* in red, *Actinobacteria*, *Fusobacteria*, *Firmicutes*, and *Verrucomicrobia* in blue, bacteria from the phylum *Proteobacteria* in yellow).



**Figure S3.** Cluster analysis 82 vaginal samples collected during pregnancy at  $\geq 20$  weeks GA pregnancy collection. Each column represents a sample; each row represents a bacterial species corresponding to a specific nucleotide number (bacteria from the phyla *Bacteroidetes* in red, *Actinobacteria*, *Fusobacteria*, *Firmicutes*, and *Verrucomicrobia* in blue, bacteria from the phylum *Proteobacteria* in yellow).



**Figure S4.** Cluster analysis 44 vaginal samples collected post-delivery. Each column represents a sample; each row represents a bacterial species corresponding to a specific nucleotide number (bacteria from the phyla *Bacteroidetes* in red, *Actinobacteria*, *Fusobacteria*, *Firmicutes*, and *Verrucomicrobia* in blue, bacteria from the phylum *Proteobacteria* in yellow).

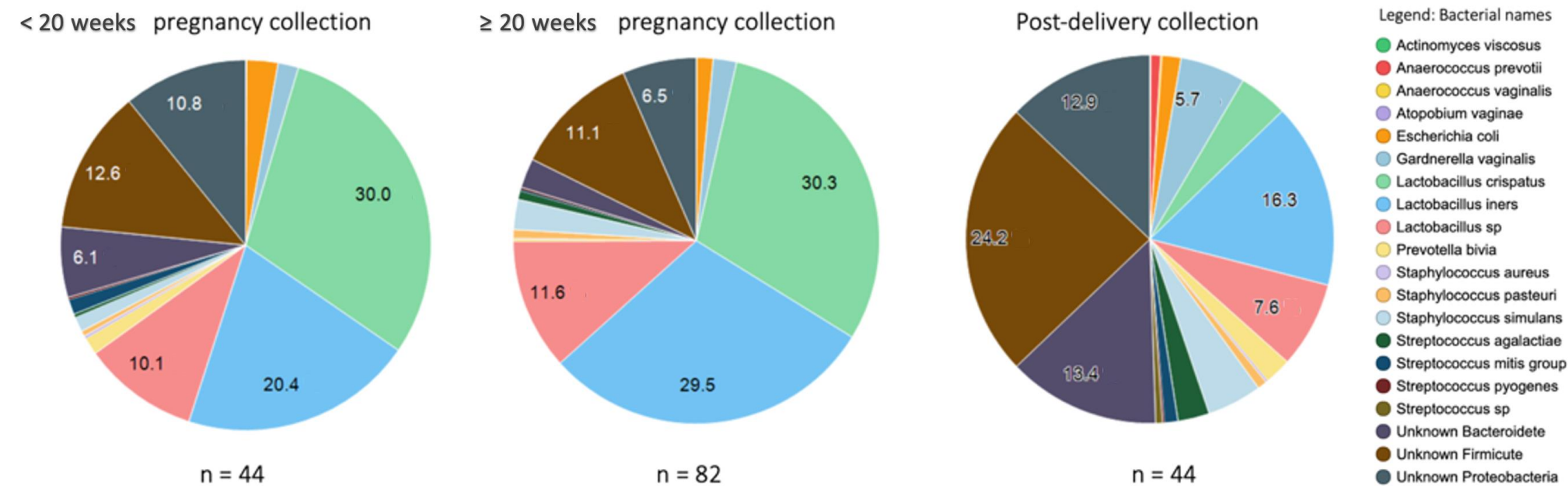
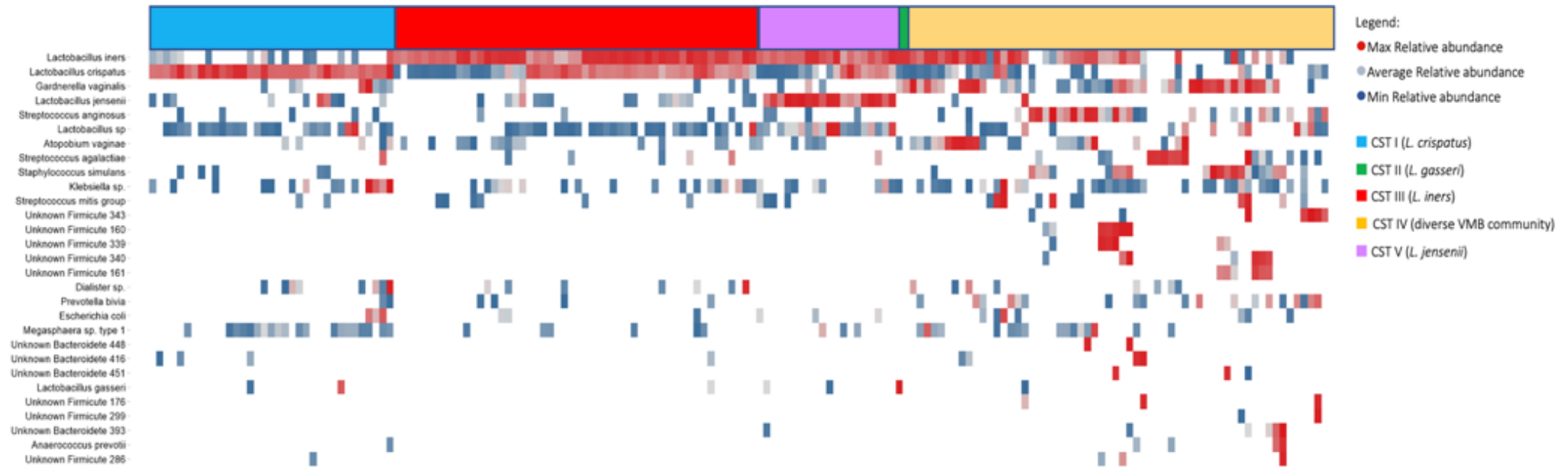
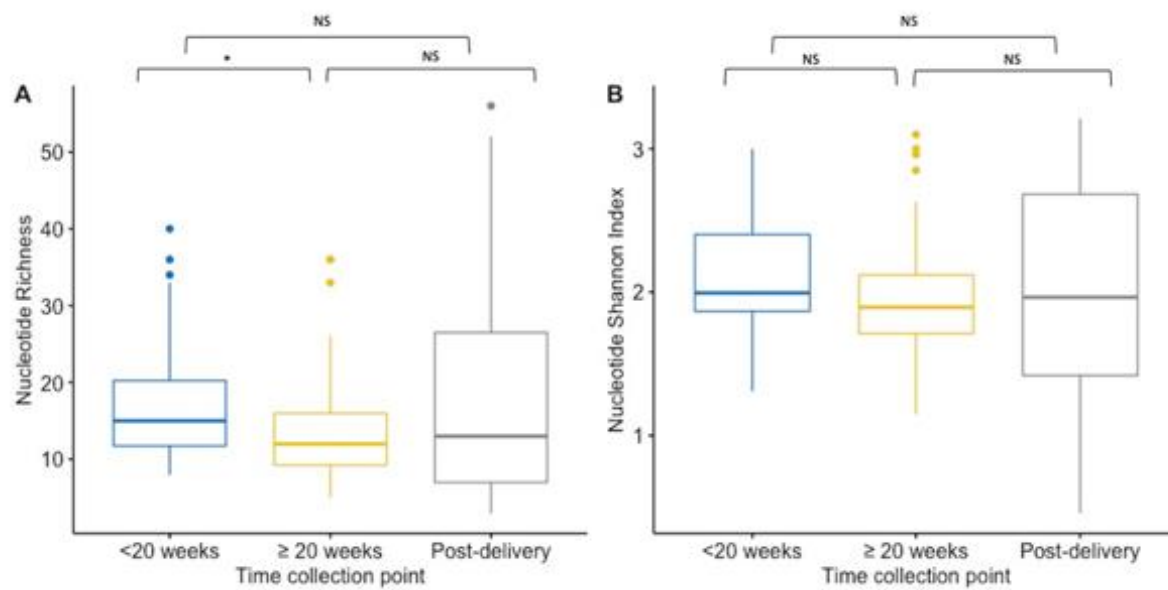


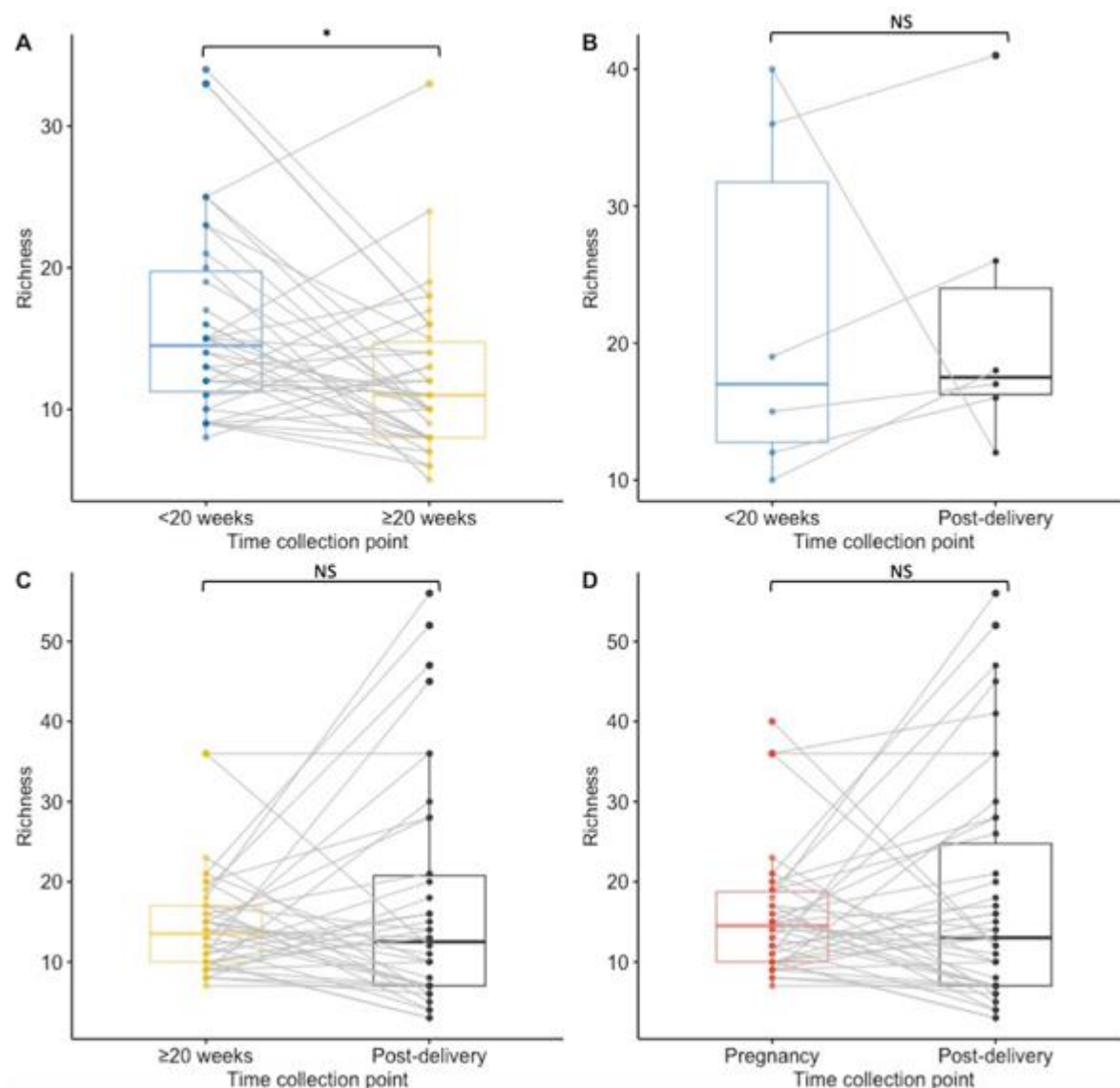
Figure S5. The frequency of bacterial species or unknown genus/family bacteria observed per collection time point.



**Figure S6.** Heatmap of all samples of the cohort in Pemba Island showing the 29 species with the highest relative abundance. Each column represents a sample, each row represents a bacterial species. In the dendrogram the community state type (CST) cluster are given in colour; CST I; blue, CST II; green, CST III; red, CST IV, yellow, CST V; purple

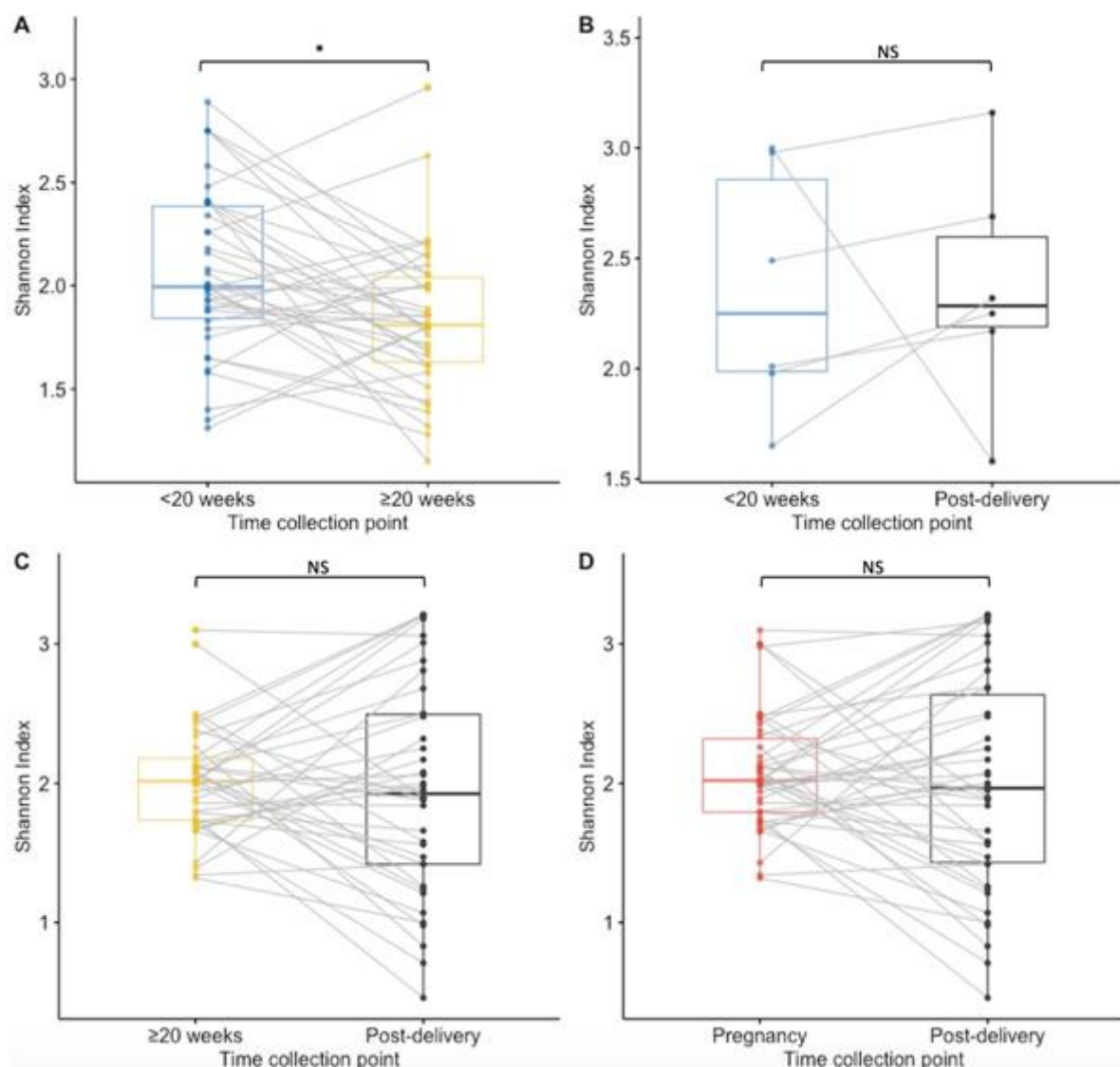


**Figure S7.** Boxplot for the richness (A) and Shannon diversity index (B) at nucleotide level for each collection point. Results of the < 20 weeks GA pregnancy collection are in blue (n = 44), ≥ 20 weeks GA pregnancy collection in yellow (n = 82), and post-delivery in grey (n = 44). A. Nucleotides richness is lower at ≥ 20 weeks GA pregnancy collection compare to the pregnancy collection at < 20 weeks GA pregnancy collection ( $p = 0.02$ ), but between the other timepoints there were no significance difference. B. The Shannon diversity index did not significantly differ between the collection timepoints.



**Figure S8.** Boxplots for nucleotide richness at each collection point for paired samples. Results of the < 20 weeks GA pregnancy collection are in blue, ≥ 20 weeks GA pregnancy collection in yellow, and post-delivery in black and pregnancy in red. A. The nucleotide richness was significantly lower at the ≥ 20 weeks GA pregnancy collection point than at < 20 weeks GA pregnancy collection ( $p < 0.01$ ) in matched samples from 38 women. B. There was no significant difference in the nucleotide richness between the < 20 weeks GA pregnancy collection and post-delivery matched samples from 6 women. C. No significant difference was calculated in the nucleotide richness between ≥ 20 weeks GA pregnancy collection and post-delivery matched samples from 38 women. D. For 42 women that had samples collected at least once during pregnancy and post-delivery, no significant difference in the species richness was calculated.





**Figure S9.** Boxplots for Shannon diversity index at nucleotide level for paired samples. Results of < 20 weeks GA pregnancy collection are in blue, ≥ 20 weeks GA pregnancy collection in yellow, and post-delivery in black and pregnancy in red. A. The Shannon diversity index was significantly higher at the ≥ 20 weeks GA pregnancy collection point than at the < 20 weeks GA pregnancy collection in matched samples from 38 women ( $p < 0.01$ ). B. There was no significant difference in the Shannon diversity index between < 20 weeks GA pregnancy collection and post-delivery matched samples from 6 women. C. No significant difference was calculated in the Shannon diversity between ≥ 20 weeks GA pregnancy collection and post-delivery matched samples from 38 women. D. For 42 women that had samples collected at least once during pregnancy and post-delivery, no significant difference in the Shannon diversity index was calculated.