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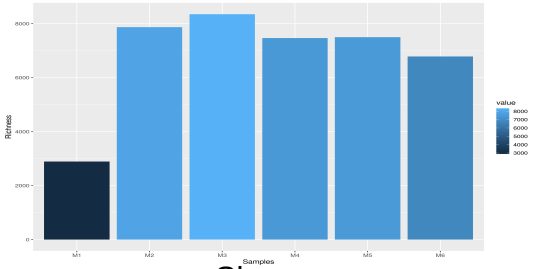
Final report:

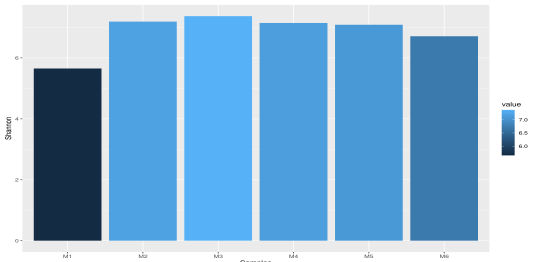
■ Richness - Species richness is simply the number of species in a community. Species diversity is more complex, and includes a measure of the number of species in a community and a measure of the abundance of each species.

■ Diversity - It is important to consider that just a greater number of species does not mean that an environment has the greatest diversity, as it is necessary to consider the taxonomy. Example:
Environment A has 5 species of the same genus, while environment B has 4 species of different phyla. Environment B is more diverse and environment A has greater richness.

Richness

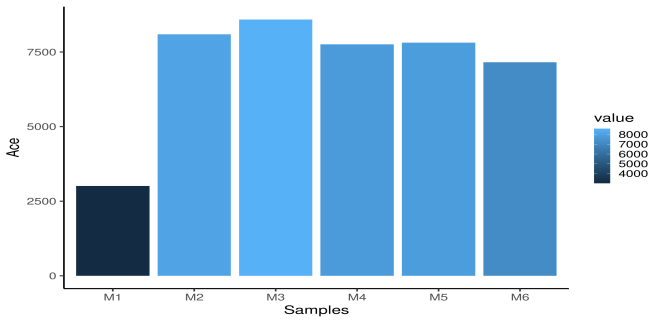


Shannon

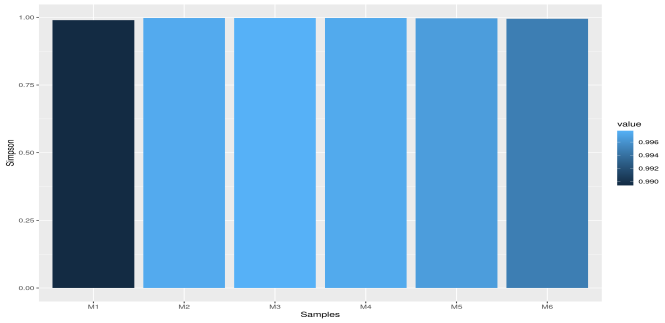


■ Shannon - Species diversity is usually described by an index, such as Shannon's Index(H). The greater the Shannon indices, the higher the diversity of the sample.

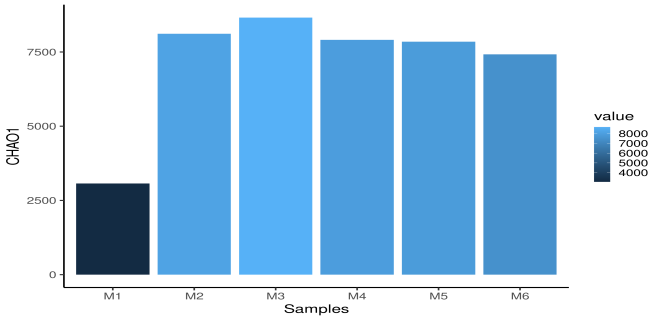
Ace



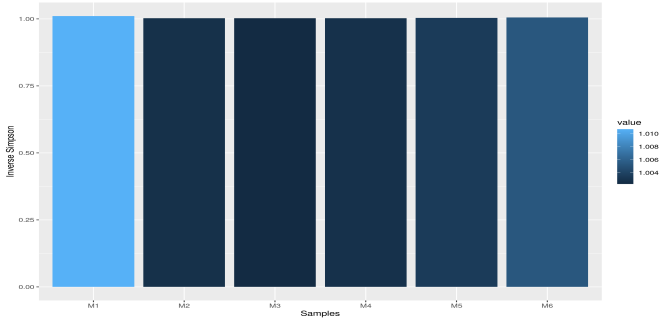
Simpson



Chao1



Inverse Simpson



■ Ace - The greater the Ace index, the higher the expected species richness of the microbiome
■ Chao - The greater the Chao1 index, the higher the expected species richness of the microbiome
■ Simpson - The smaller the Simpson index, the higher the diversity of the sample.
■ Inv.Simpson - The greater the index, the higher the diversity of the microbiome.