



Additional file 5 Pareto-Lorenz curve representing the cumulative number of species relative to their cumulative abundance. If all species would be equally distributed they would follow the straight line of equal distribution. However, this is not the case. Only a limited number of species is overrepresented within the microbiome accounting for nearly 100% of relative abundance. Due to the fact that the remaining OTUs are so low abundant, we can assume that they have little expression in terms of physiological outcome, and so they can be discarded from the analysis.