

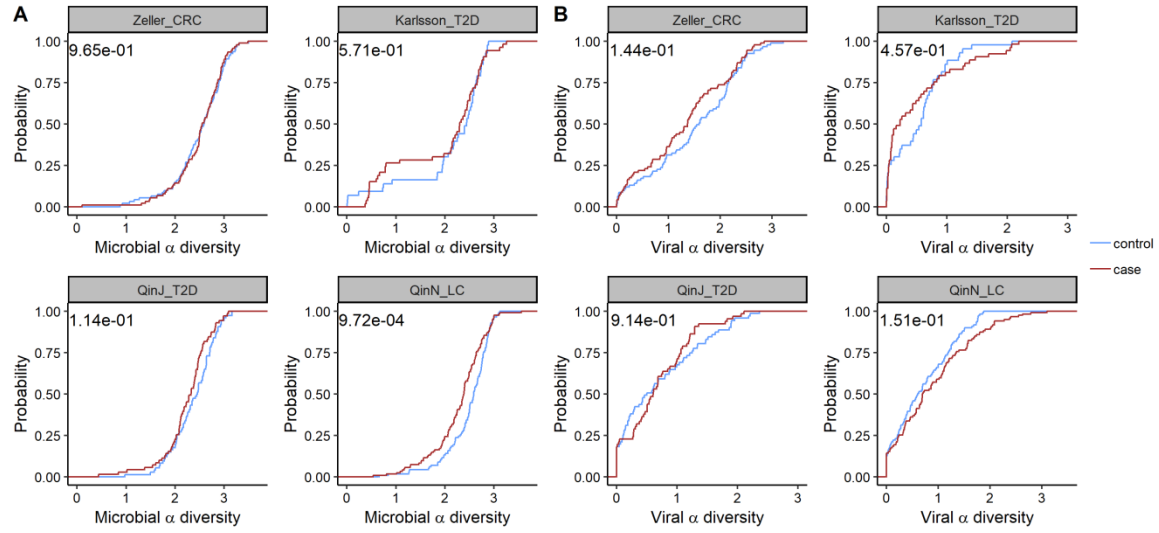


Fig. S1. Cumulative probability of alpha diversity of known profile. Plot A uses all the microbial abundances while Plot B only uses viral abundances. For both plots, only known abundances are used for the calculation. Shannon index is set as the diversity index. WMW test p-values between the cases and the controls are provided.

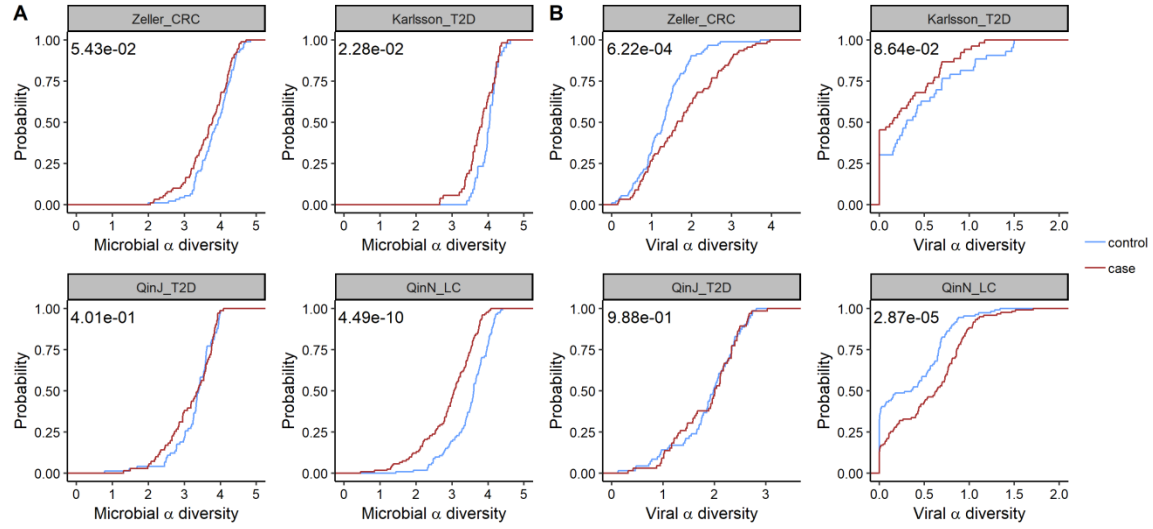


Fig. S2. Cumulative probability of alpha diversity of unknown profile. Plot A uses all the microbial abundances while Plot B only uses viral abundances. For both plots, only unknown abundances are used for the calculation. Shannon index is set as the diversity index. WMW test p-values between the cases and the controls are provided.

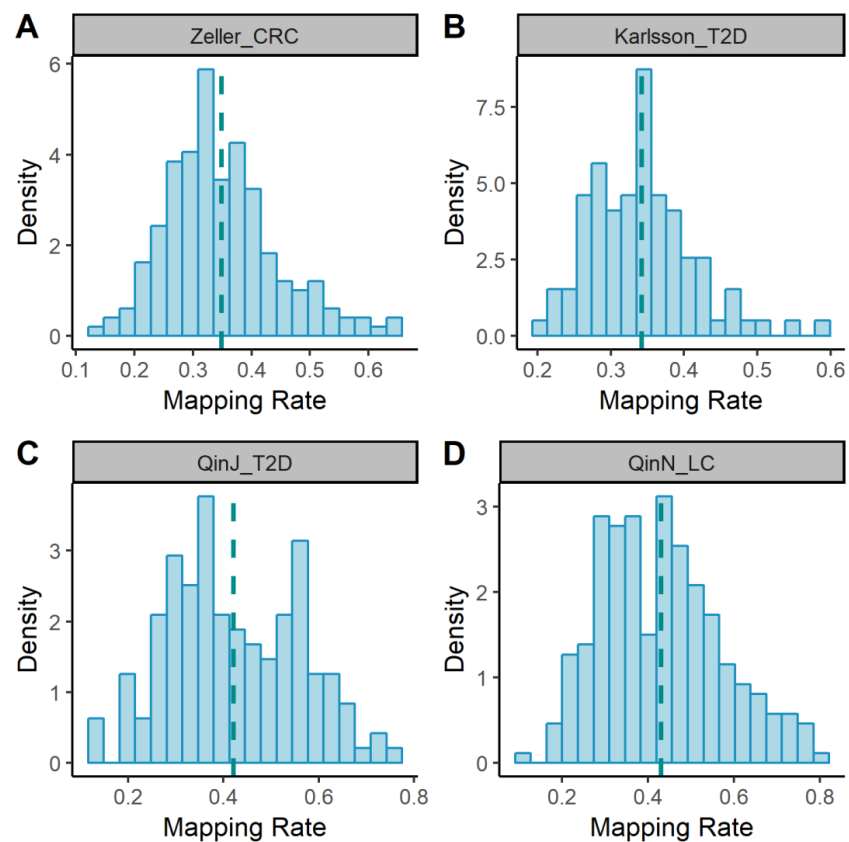


Fig. S3. Histograms of mapping rates of each dataset. Dashed lines show the mean mapping rate.