



**Supplementary Figure 5.** Variation in substitution rates between acute and persistent isolates. A) Histogram showing the frequency of branches subtending acute and persistent isolates with different estimated mutation rates. B) Scatter plots of branch length vs mean estimated substitution rate for branches subtending acute, persistent and other (unknown) isolates. The unbroken and dashed red lines in each plot indicate the mean and 95% HPD estimates for the entire data from BEAST.