



**Figure S4: Geographical mixing vs. temporal differentiation of strains.** Left panel: geographical location of observed strains (red: Asia, green: Australia, blue: North America, cyan: Central and South America, orange: Europe). The data indicate geographical mixing and confirm the results of previous studies (Rambaut et al., 2008; Russell et al., 2008): Strains with similar HA1 sequences occurring in the same year are distributed over different regions. Right panel: Year of occurrence of observed strains (colors as in Fig. S1). The data fall into yearly clusters of increasing mutational distance  $D$  to the root node.