Supplementary Figure 1: Schematic diagrams of the main modelling components. **Top left:** The transmission model for each Kenyan county follows an essentially SEIR type pattern with separate categories for symptomatic and asymptomatic infection, and two categories of waning natural immunity. **Right:** The infection outcome model for a fraction of infections that are either deadly, critical (lead to a period in ICU followed by a period in general wards), or severe (lead to a period in general wards). **Bottom left:** Vaccination state model. Transitions indicate per capita inoculation rates with first and second doses of vaccine followed by two categories of waning vaccine-induced immunity.