

SUPPORTING FIGURES

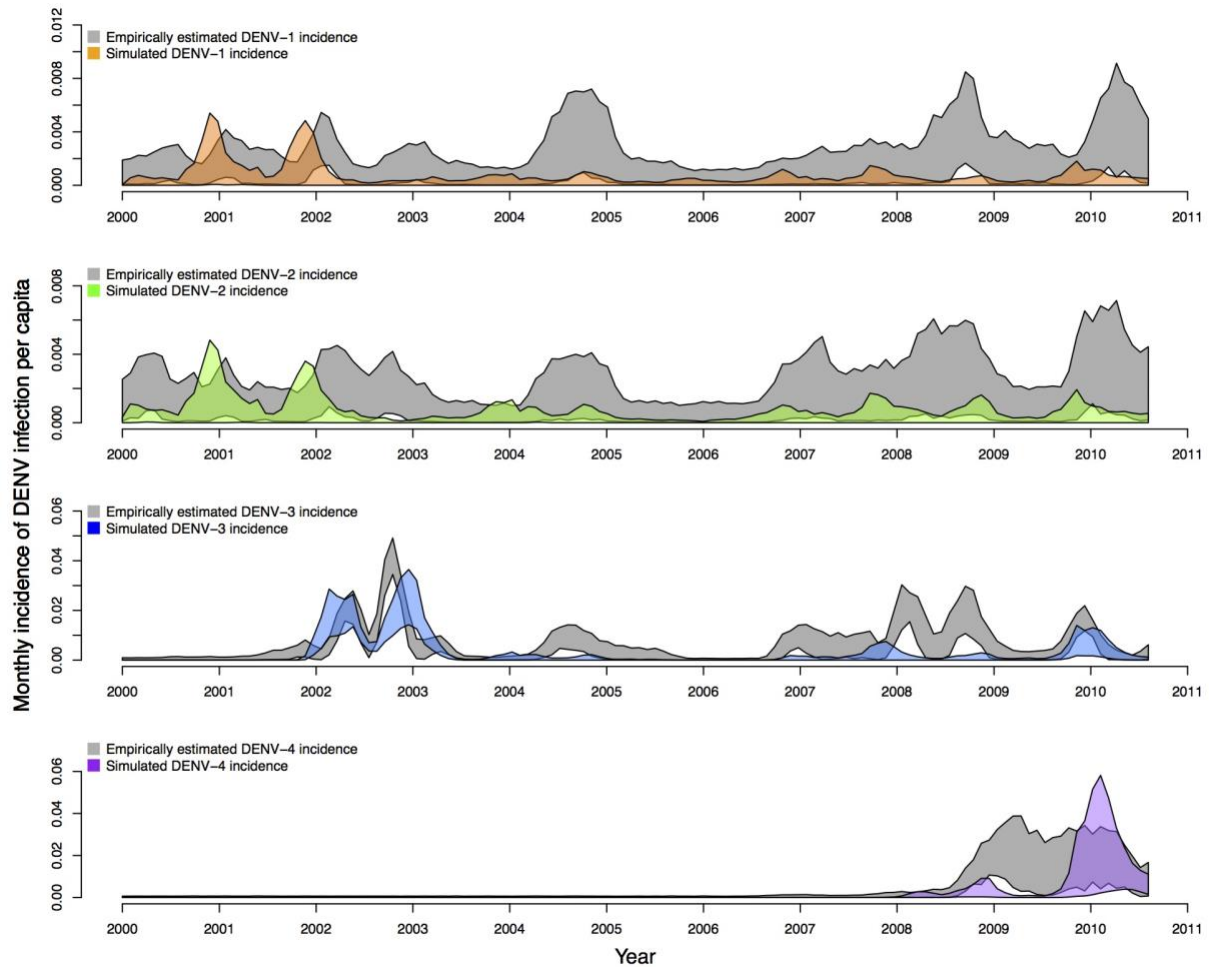


Figure S1. Monthly, serotype-specific incidence of infection per capita, as estimated by Reiner et al. [16] (gray bands) and as reproduced by our calibrated model (colored bands). Bands show the range of values in which 95% of simulated values lie for a given serotype in a given month. These values were obtained under the assumption that the period of temporary cross-immunity is exponentially distributed with a mean of 180 days.

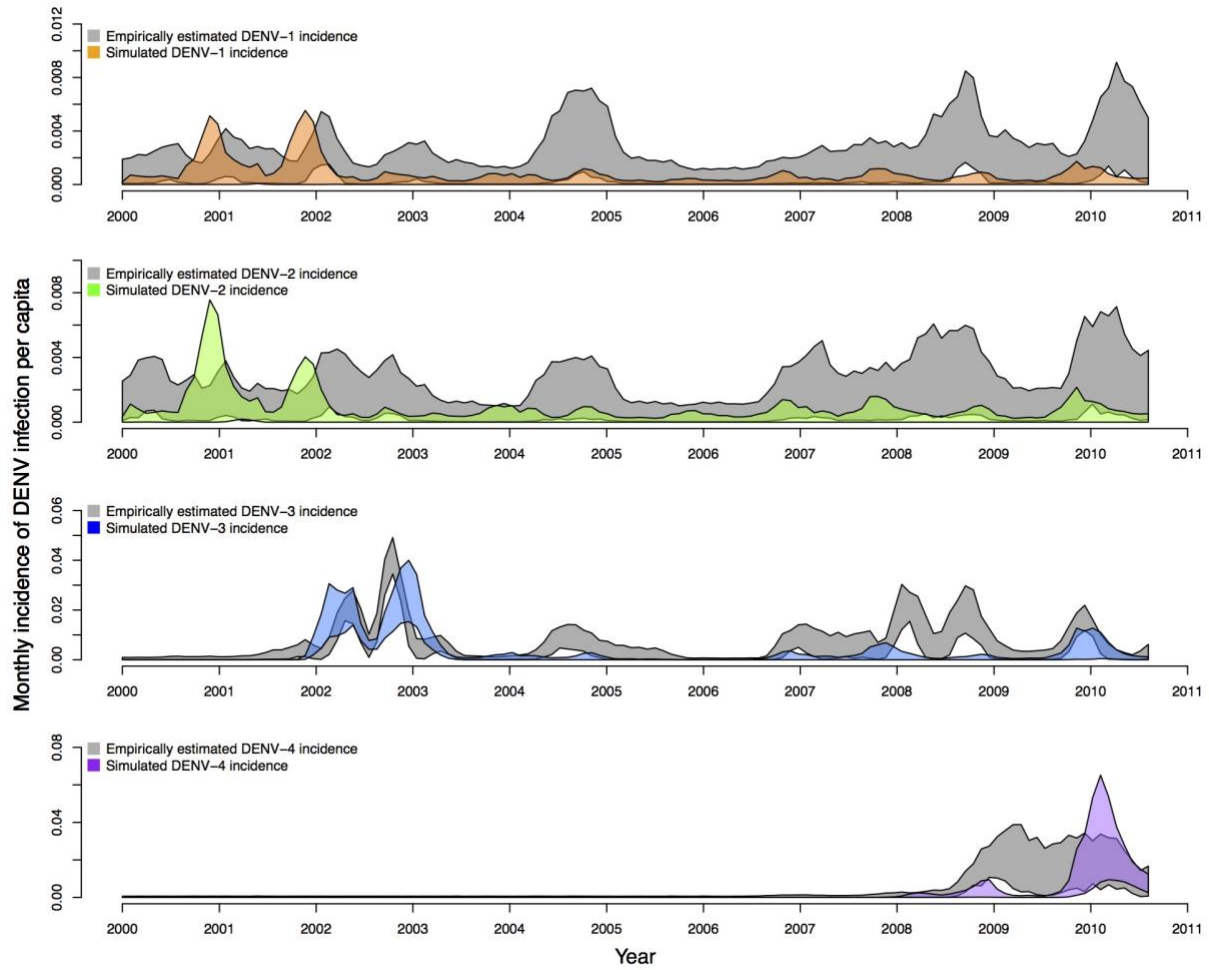


Figure S2. Monthly, serotype-specific incidence of infection per capita, as estimated by Reiner et al. [16] (gray bands) and as reproduced by our calibrated model (colored bands). Bands show the range of values in which 95% of simulated values lie for a given serotype in a given month. These values were obtained under the assumption that the period of temporary cross-immunity is exponentially distributed with a mean of 360 days.

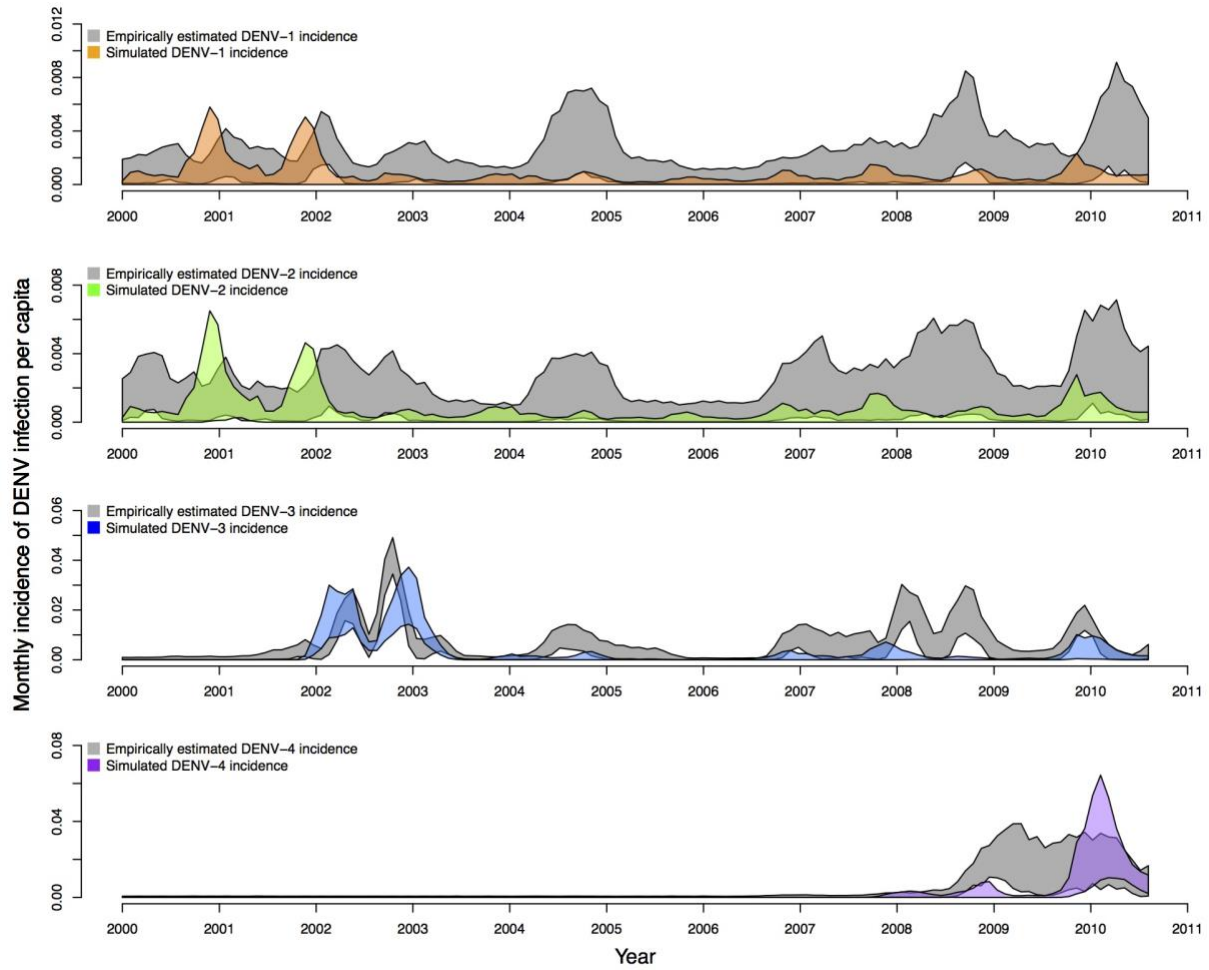


Figure S3. Monthly, serotype-specific incidence of infection per capita, as estimated by Reiner et al. [16] (gray bands) and as reproduced by our calibrated model (colored bands). Bands show the range of values in which 95% of simulated values lie for a given serotype in a given month. These values were obtained under the assumption that the period of temporary cross-immunity is fixed at 180 days.

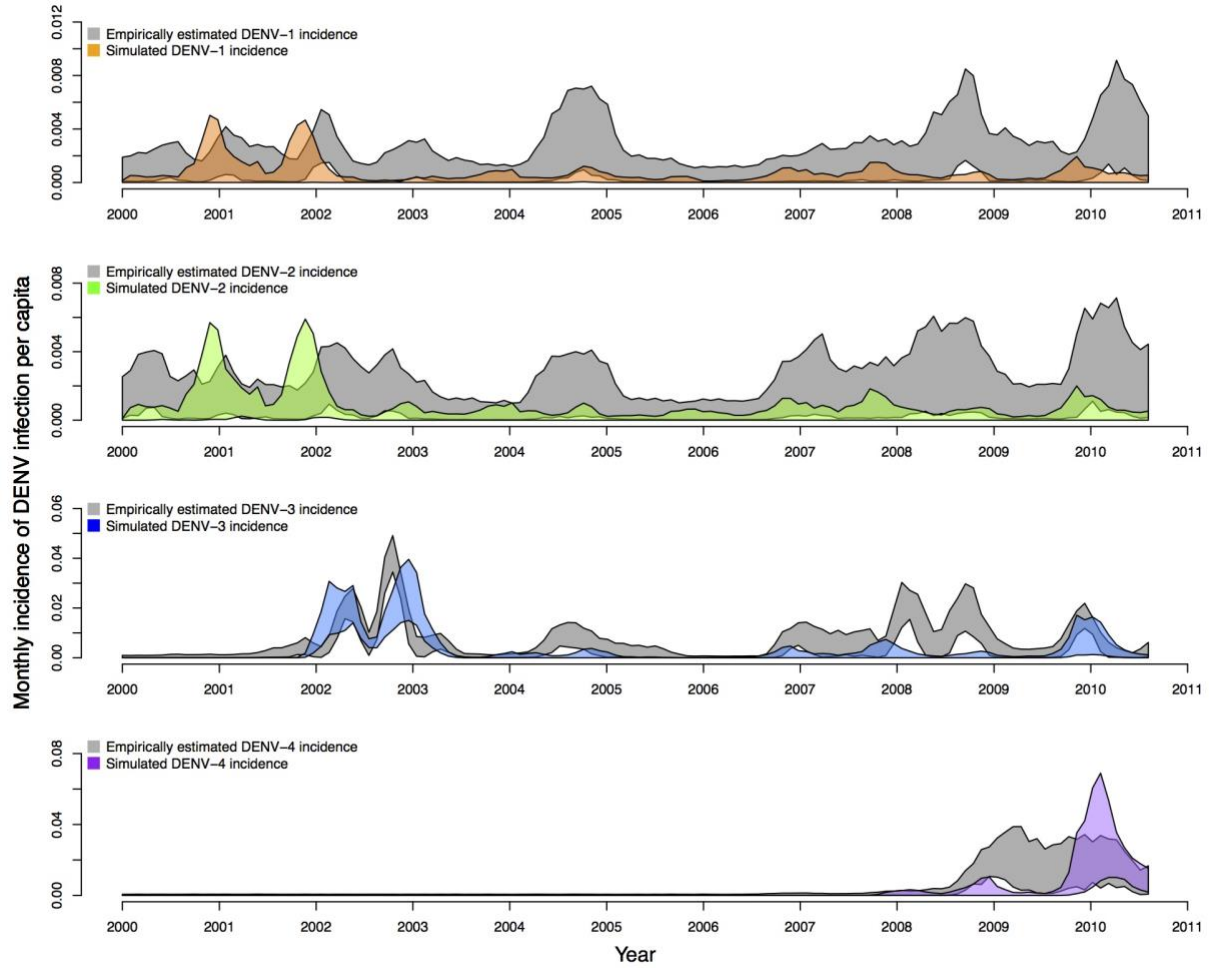


Figure S4. Monthly, serotype-specific incidence of infection per capita, as estimated by Reiner et al. [16] (gray bands) and as reproduced by our calibrated model (colored bands). Bands show the range of values in which 95% of simulated values lie for a given serotype in a given month. These values were obtained under the assumption that the period of temporary cross-immunity is fixed at 360 days.

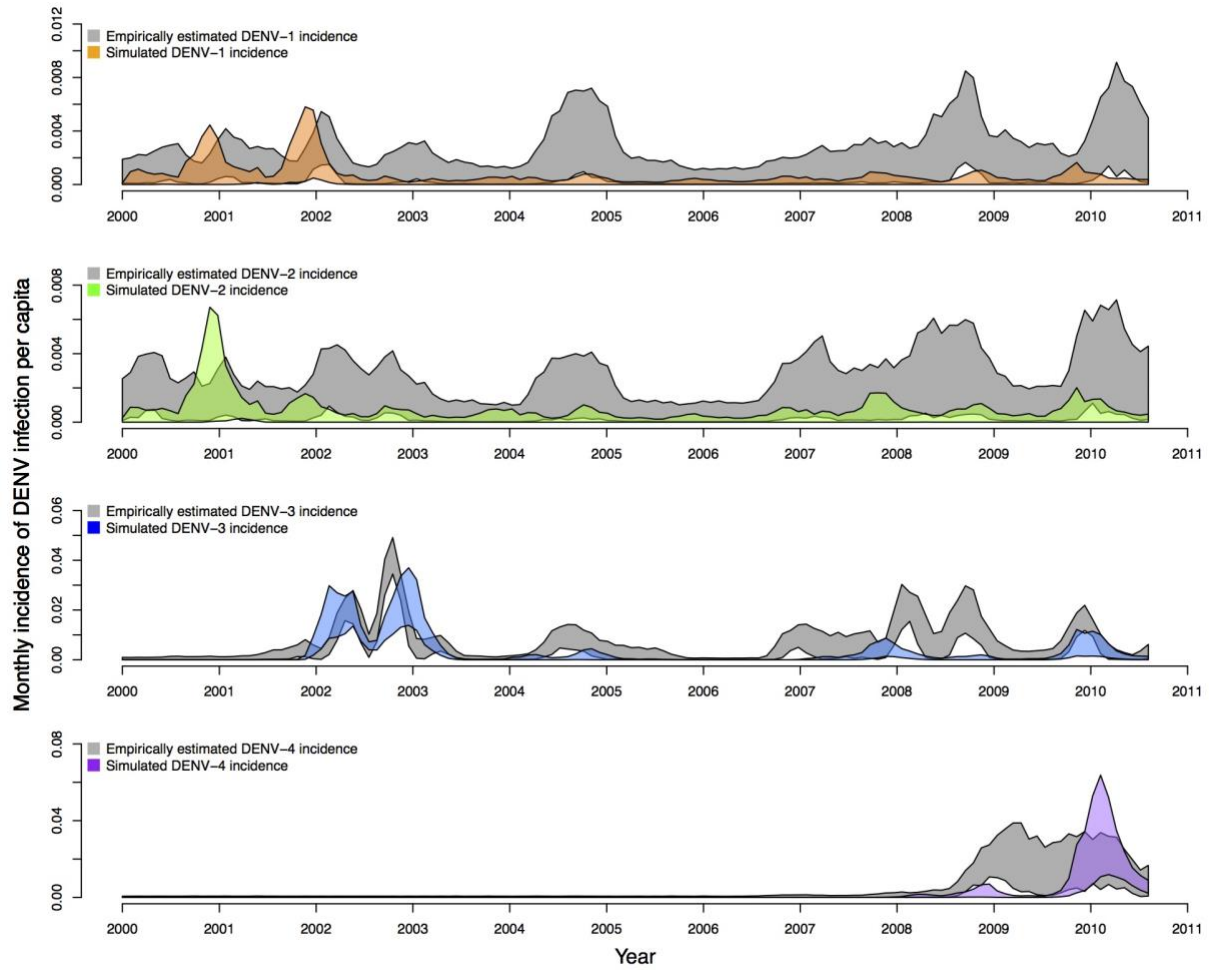


Figure S5. Monthly, serotype-specific incidence of infection per capita, as estimated by Reiner et al. [16] (gray bands) and as reproduced by our calibrated model (colored bands). Bands show the range of values in which 95% of simulated values lie for a given serotype in a given month. These values were obtained under the assumption that the period of temporary cross-immunity is fixed at 686 days.

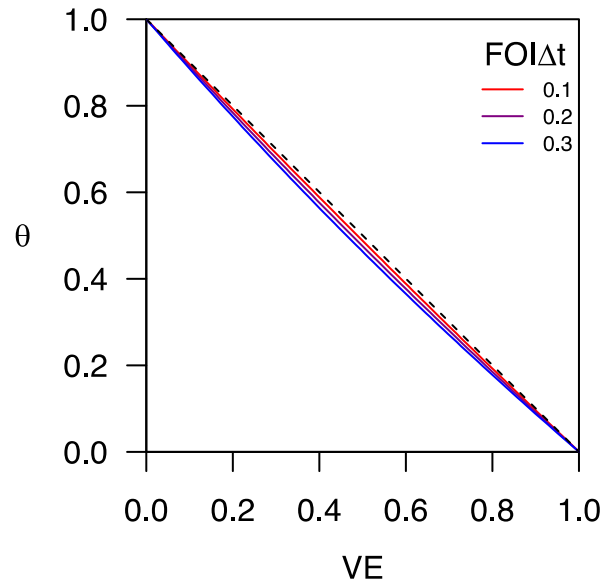


Figure S6. Relationship between vaccine efficacy against disease (VE) and per-exposure protection, θ , for different values of the infection attack rate, $FOI\Delta t$, over the period of a vaccine trial.