

Supplementary Materials

S.1 Exploratory Data Analysis

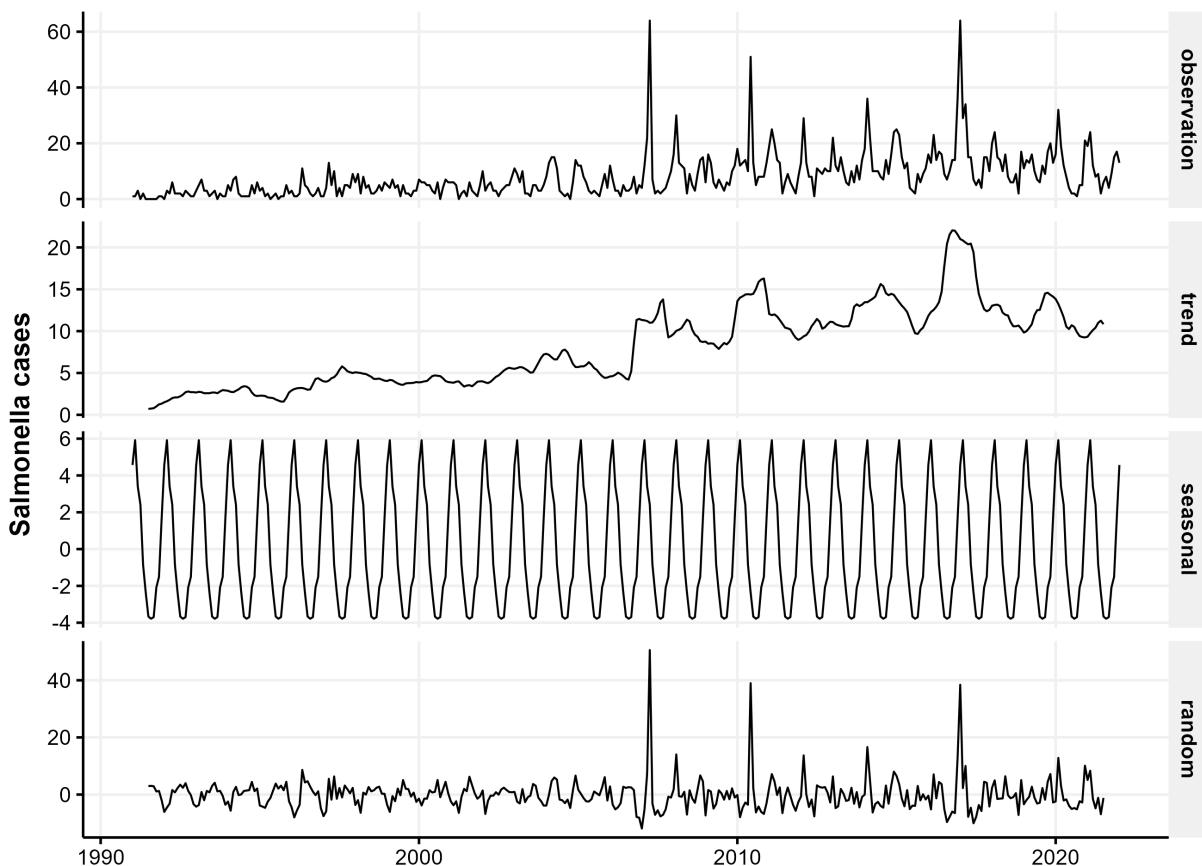


Figure S.1: Decomposition of Salmonella time series data

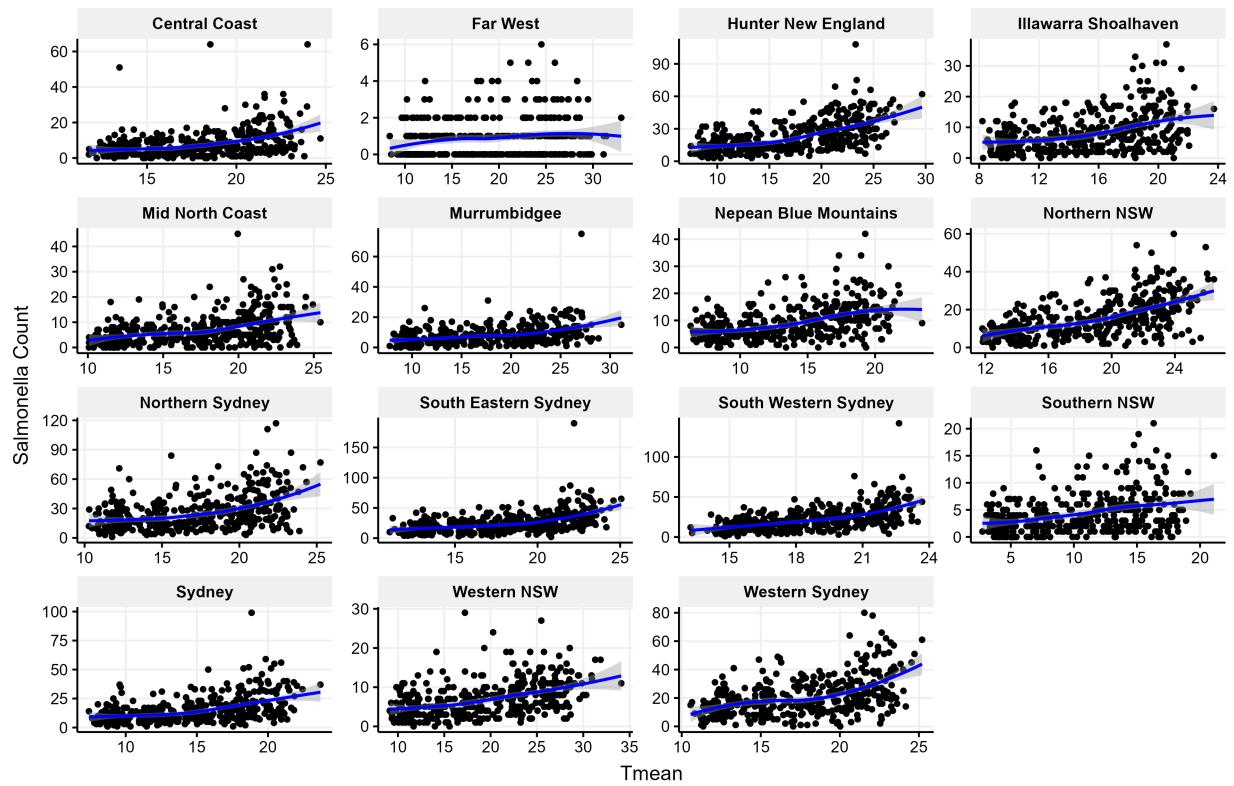


Figure S.2: Salmonella cases vs monthly mean temperature across the LHDs

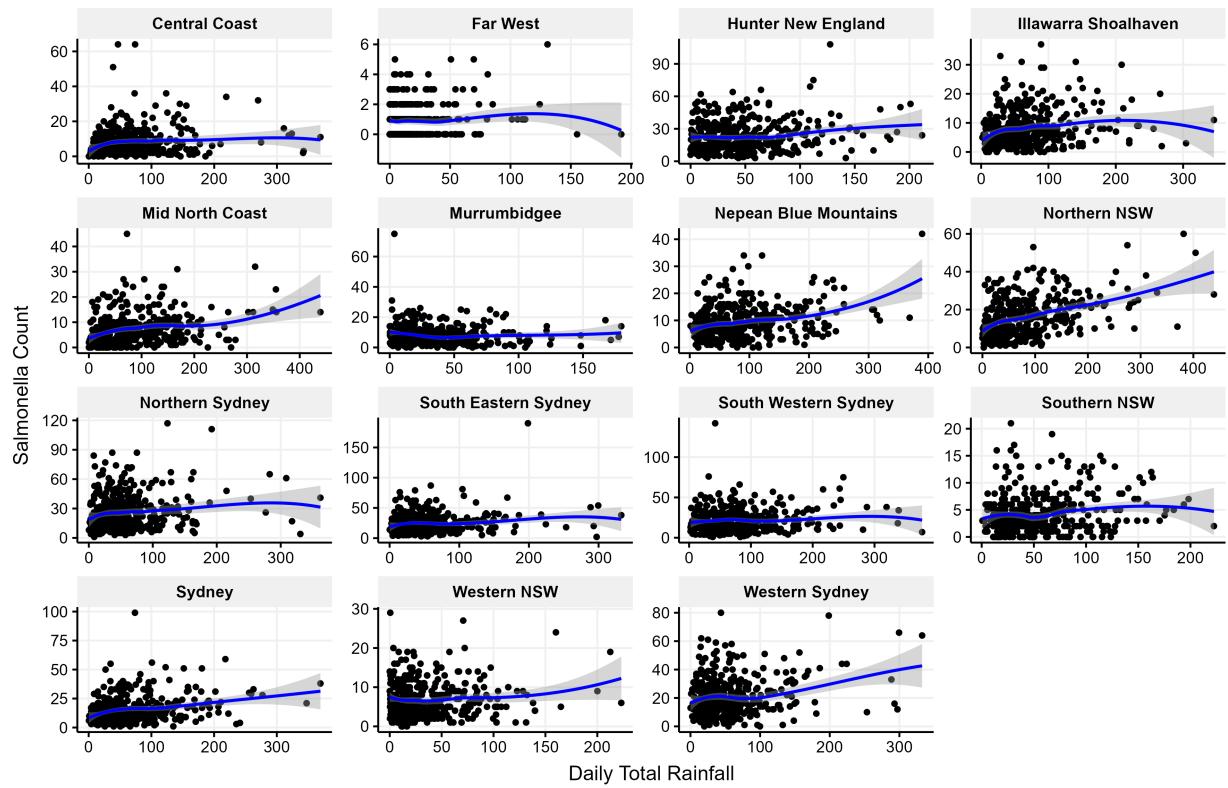


Figure S.3: Salmonella cases vs rainfall across the LHDs

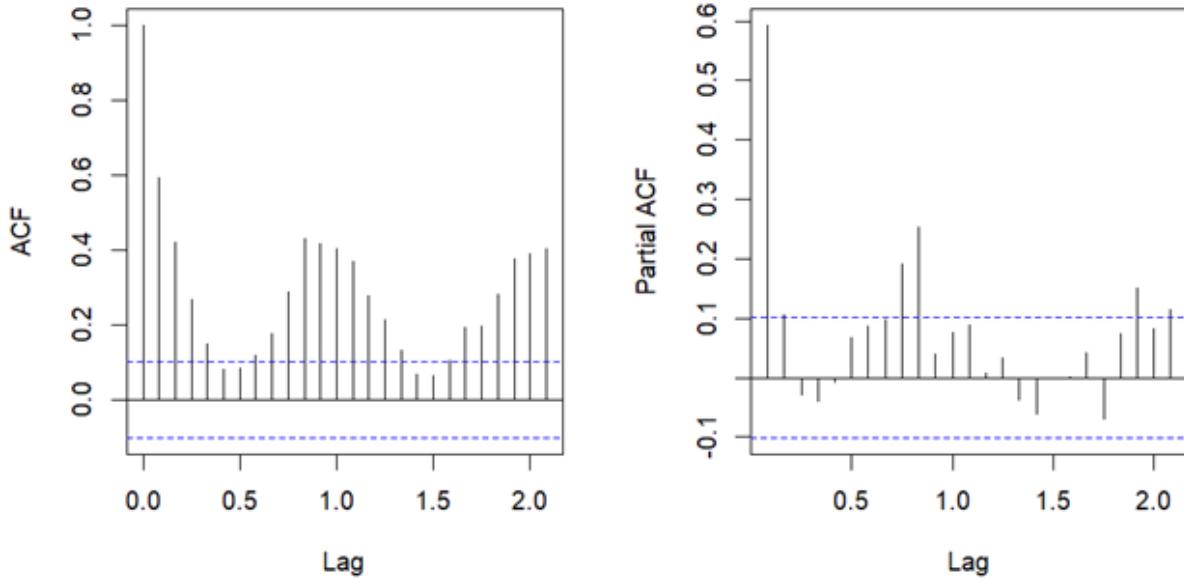


Figure S.4: Autocorrelation function (ACF) and partial ACF of Salmonella incidence rate

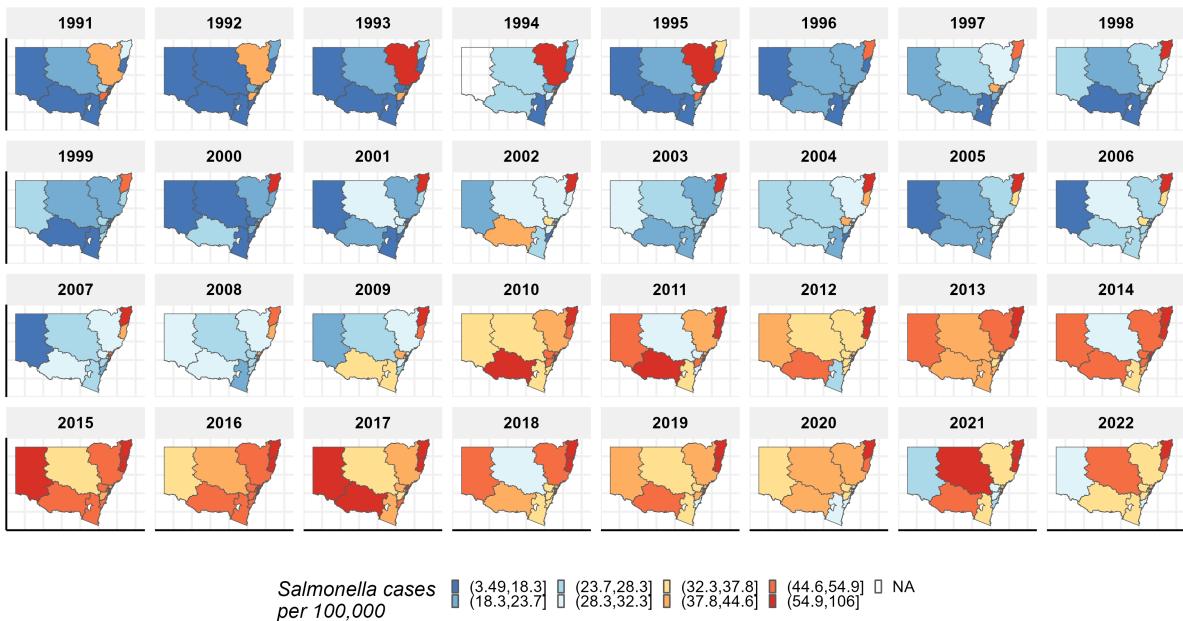
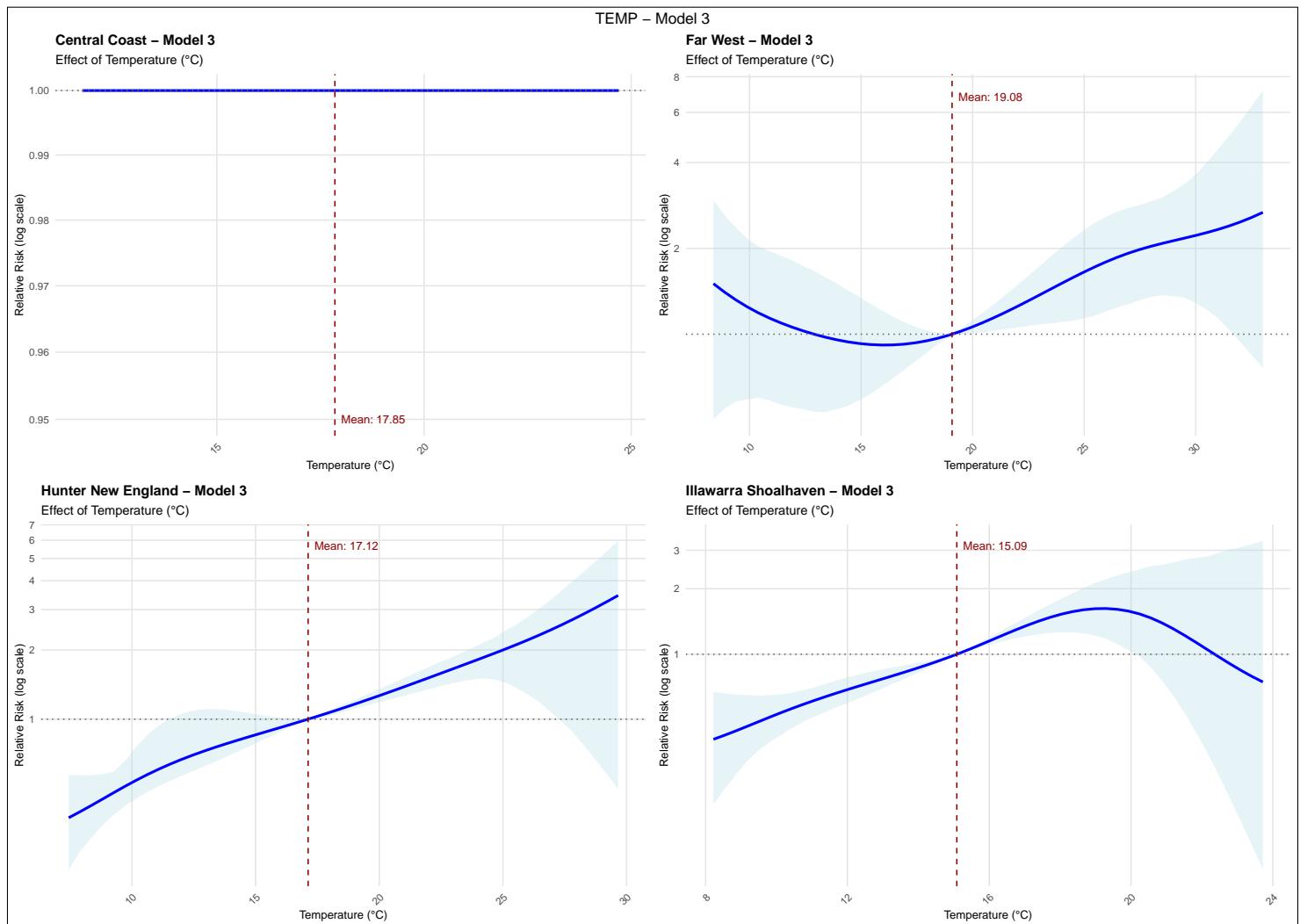
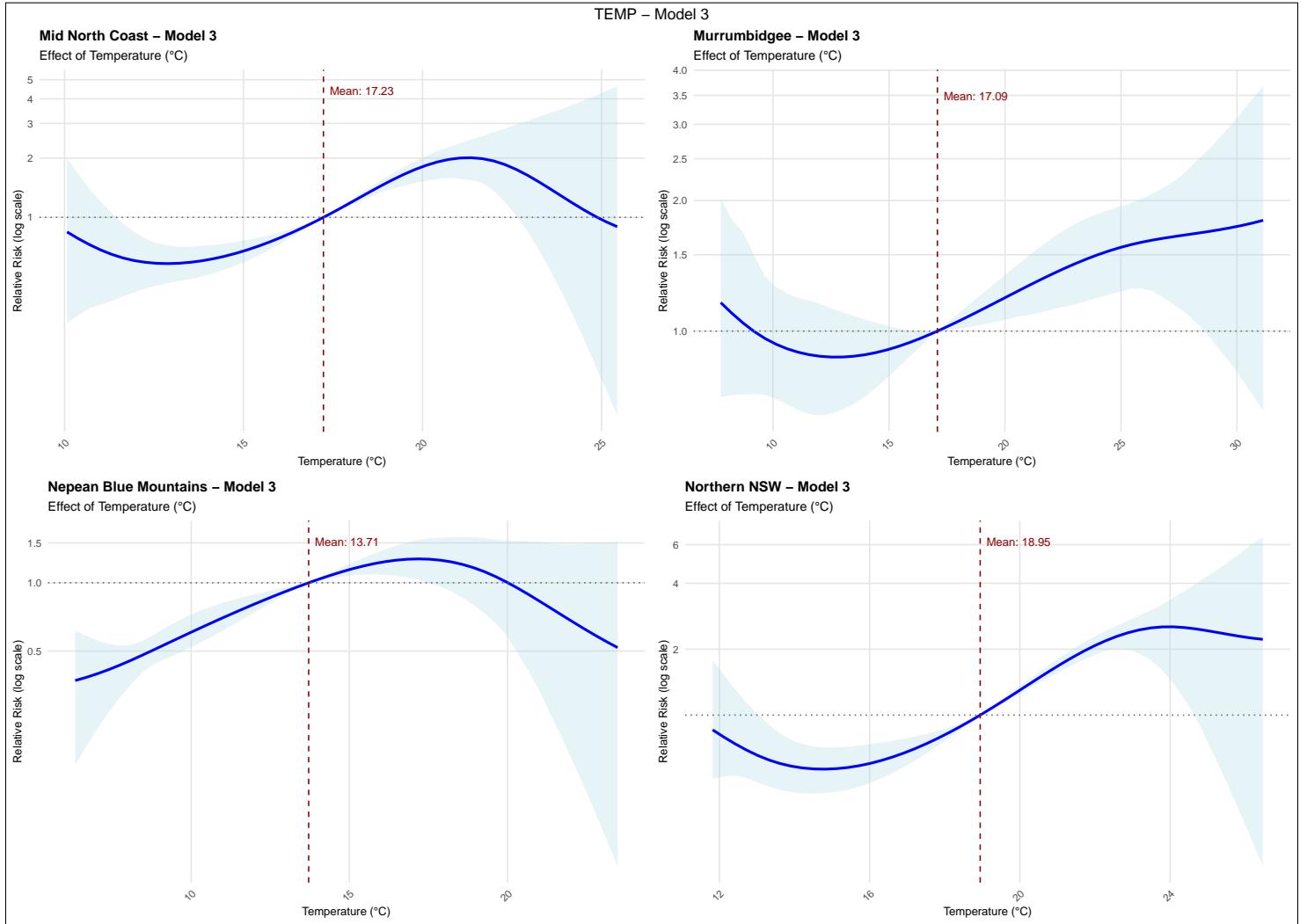
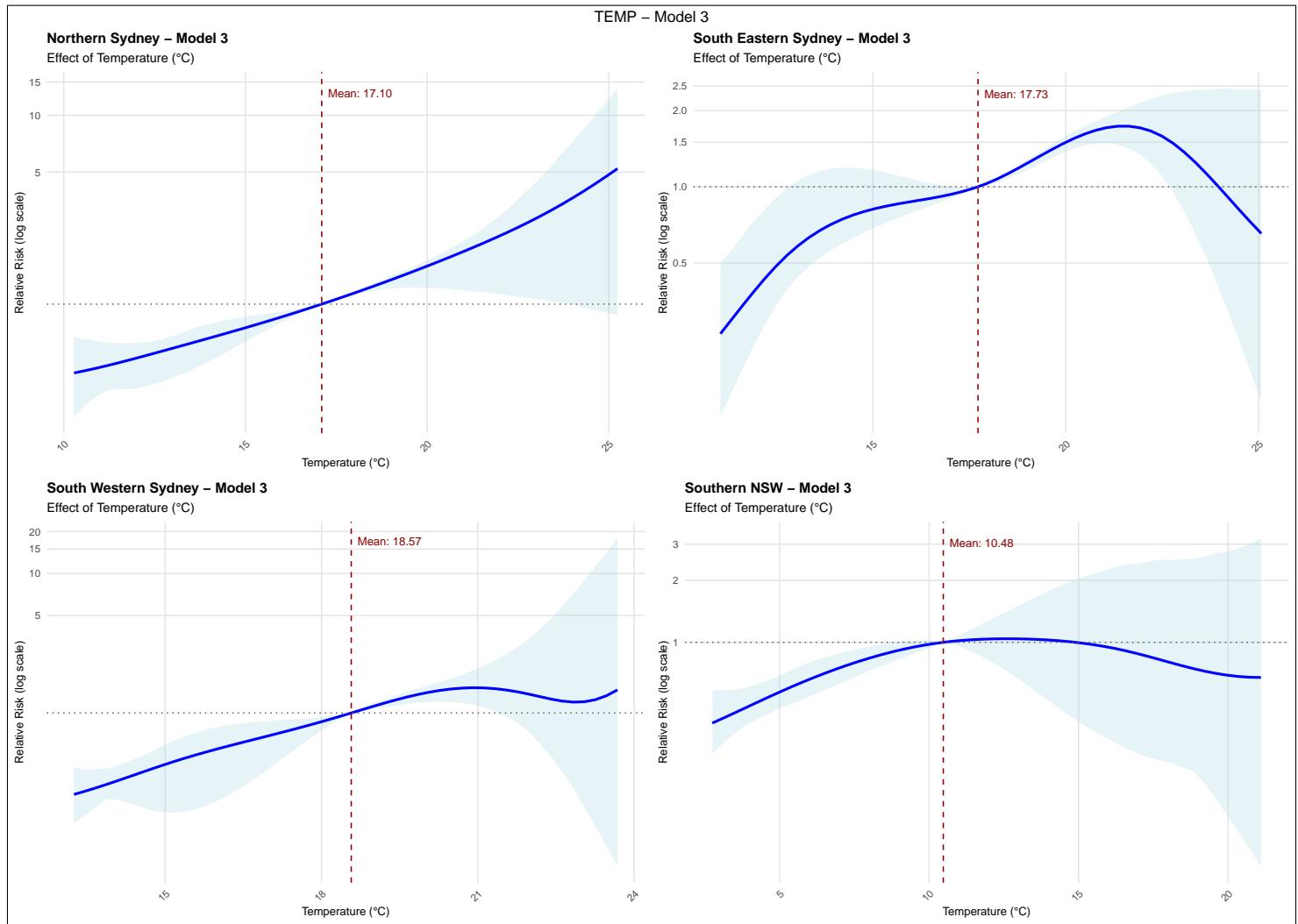


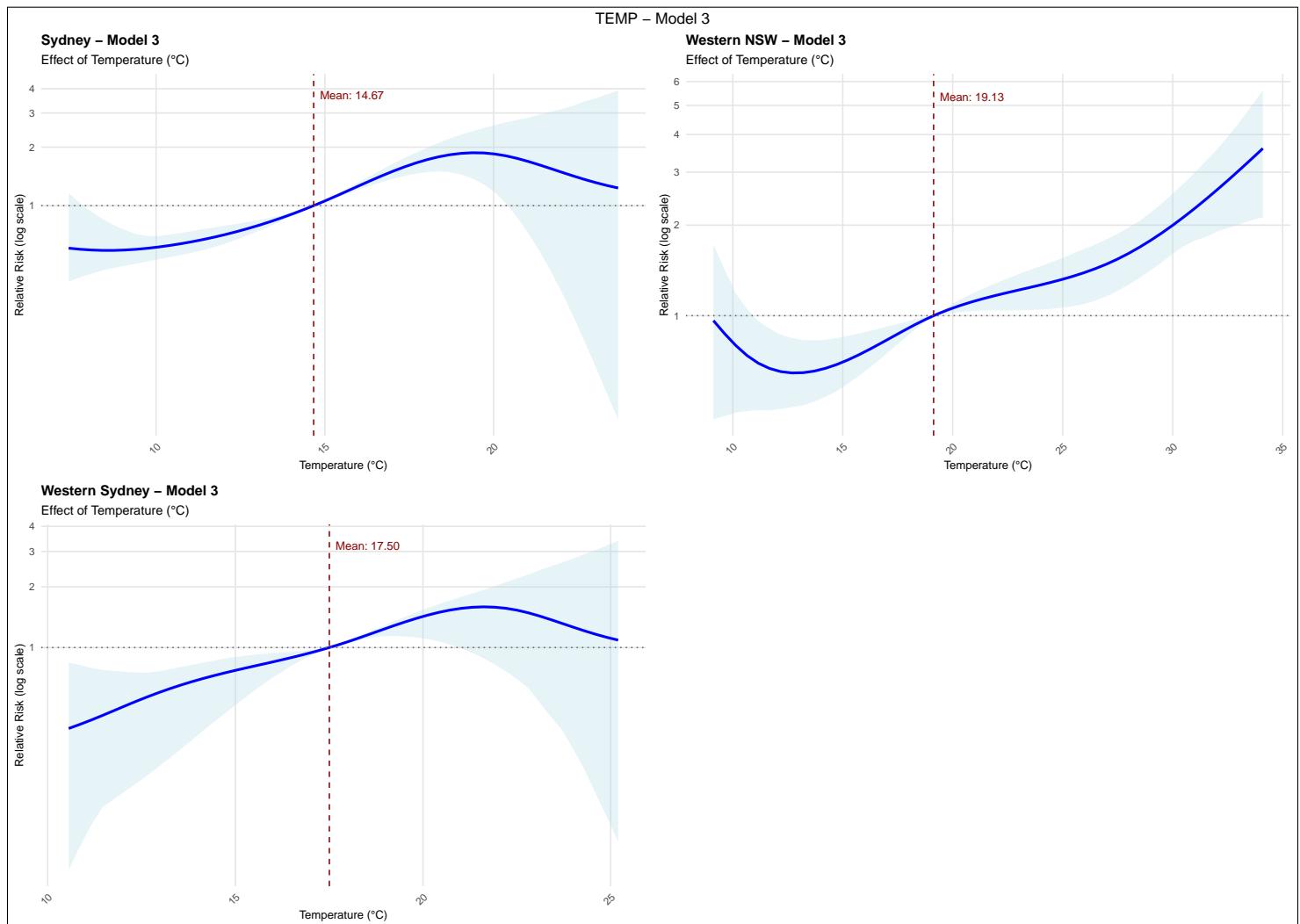
Figure S.5: Spatiotemporal patterns of Salmonella cases per 100,000 population across the LHDs in New South Wales, Australia, from 1990 to 2022

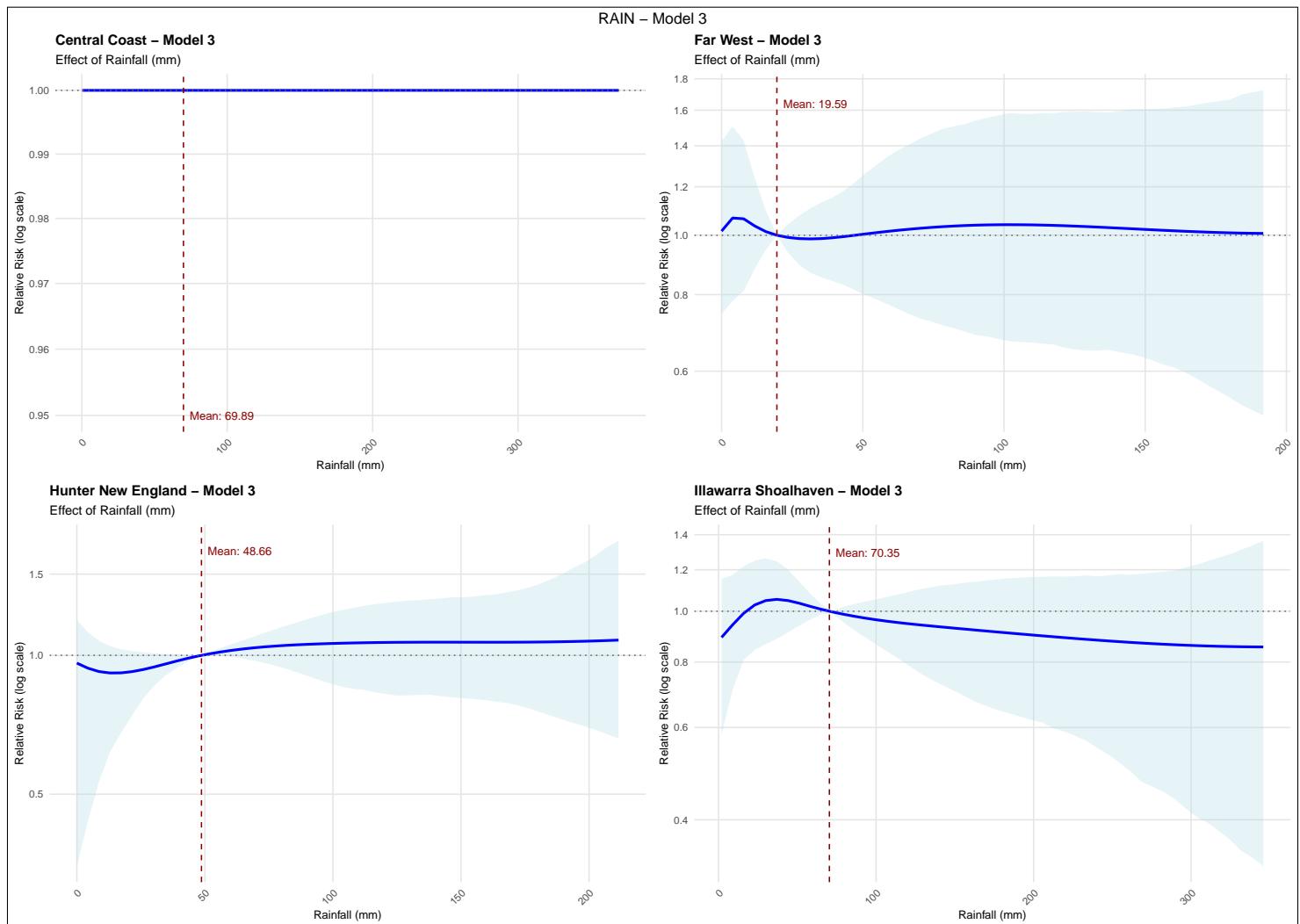
S.2 Dose-response curves

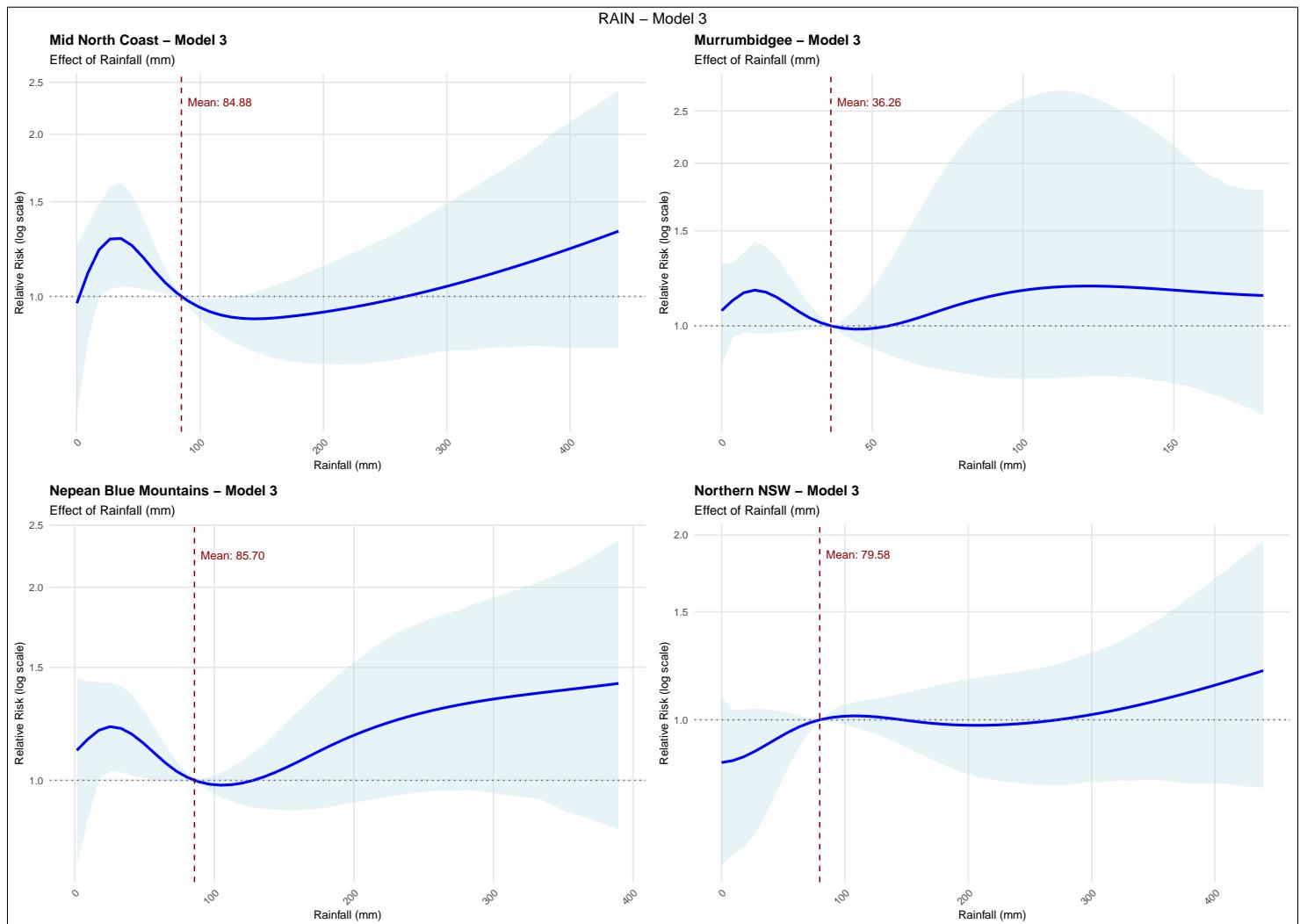


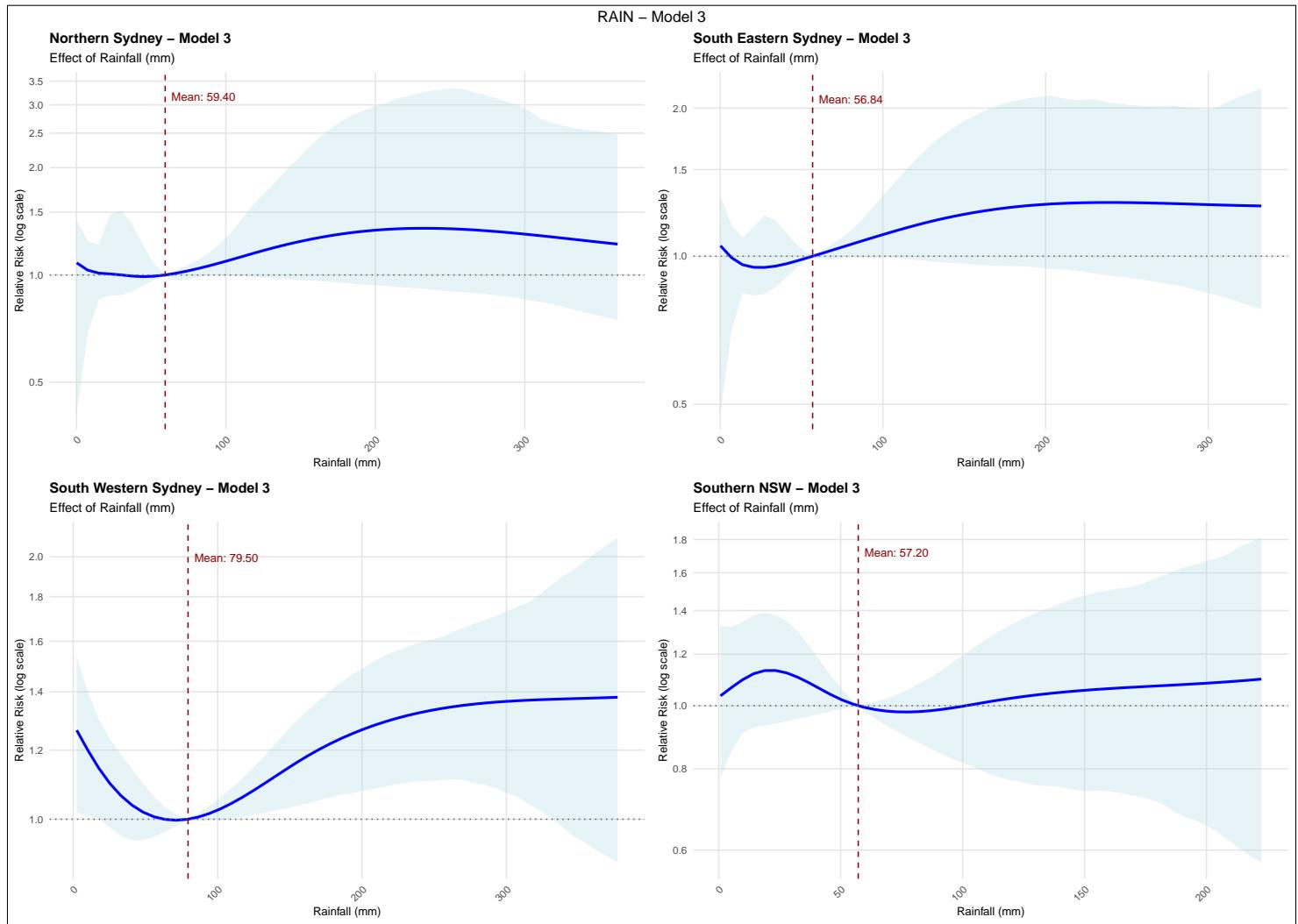


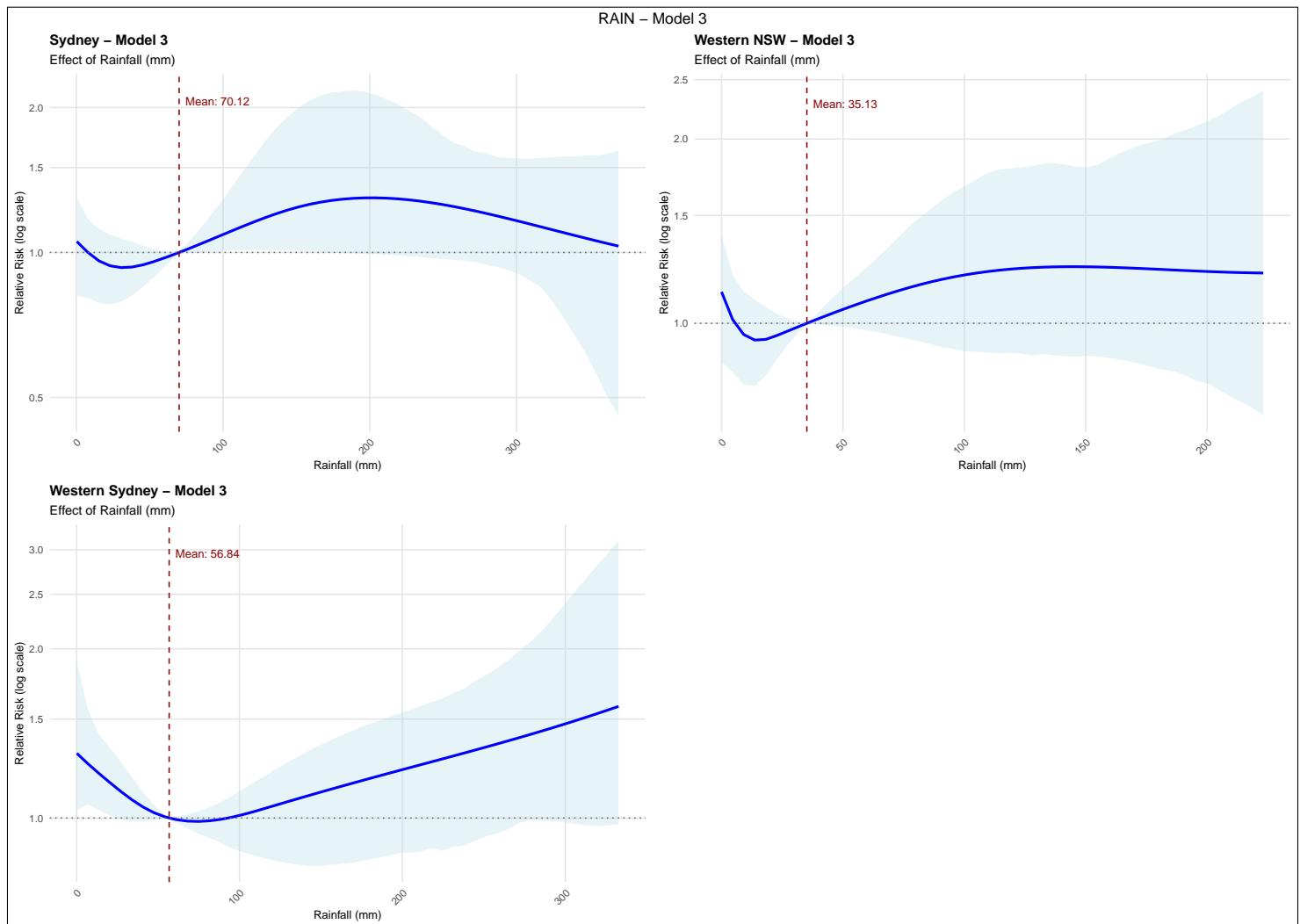


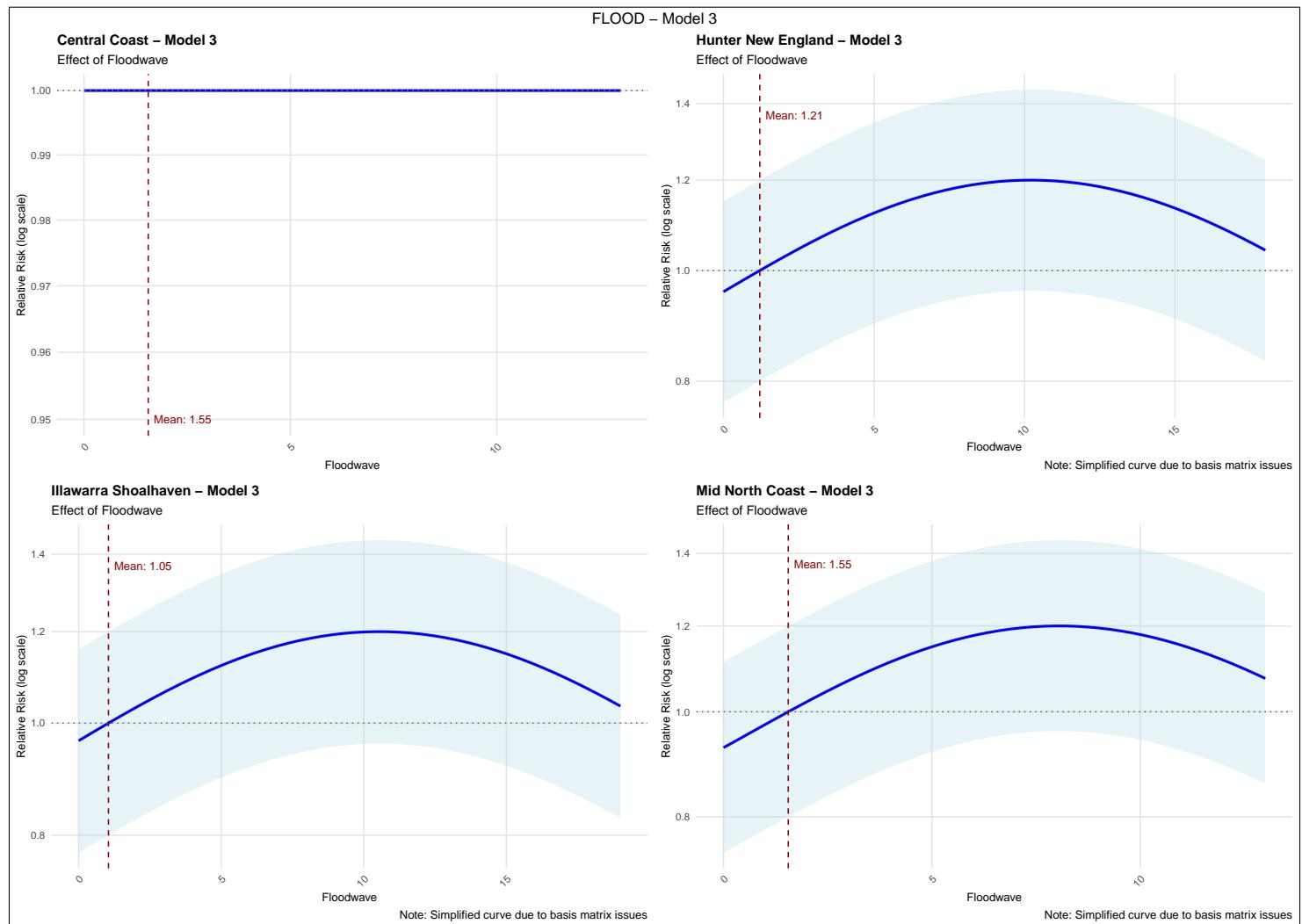


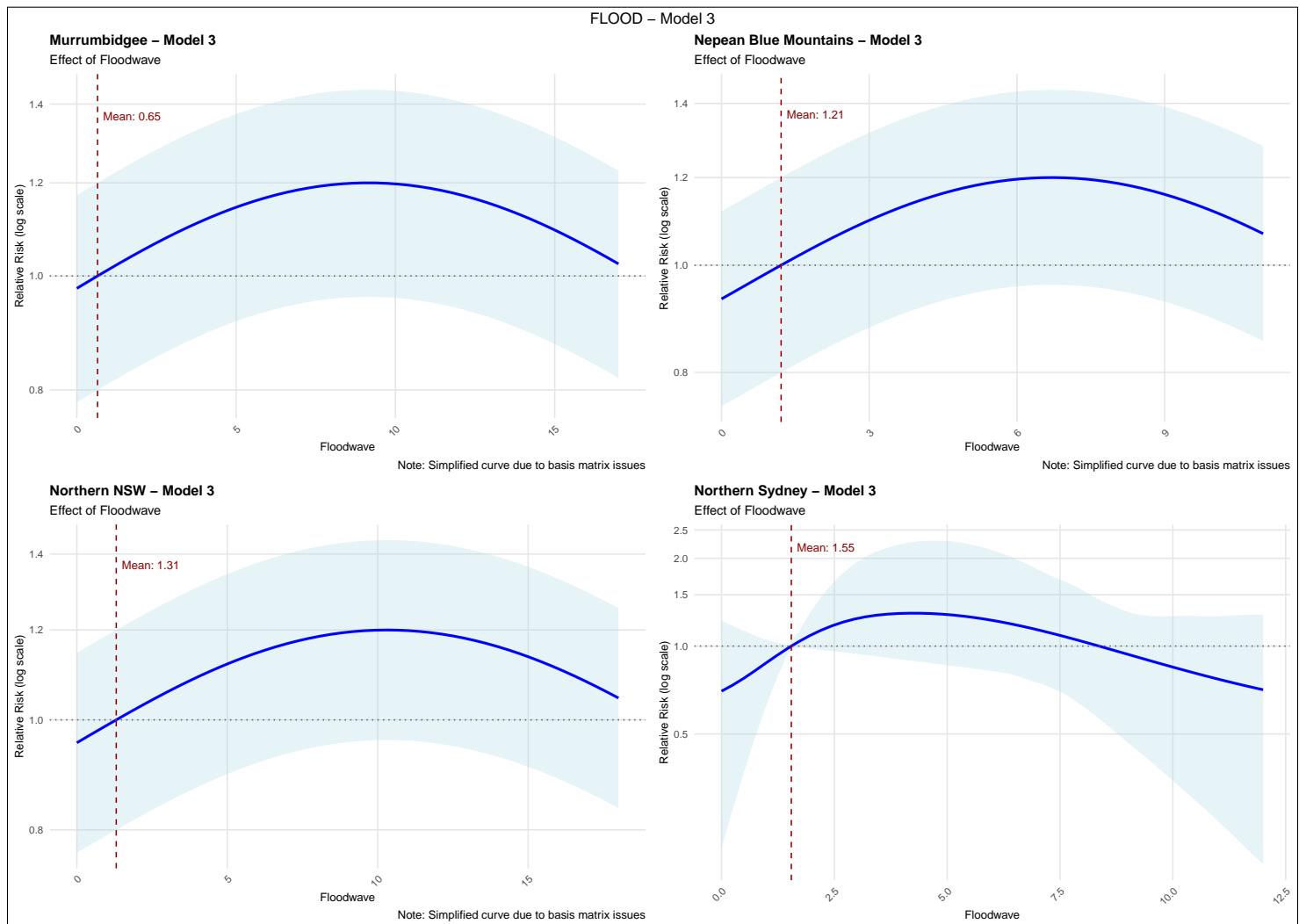


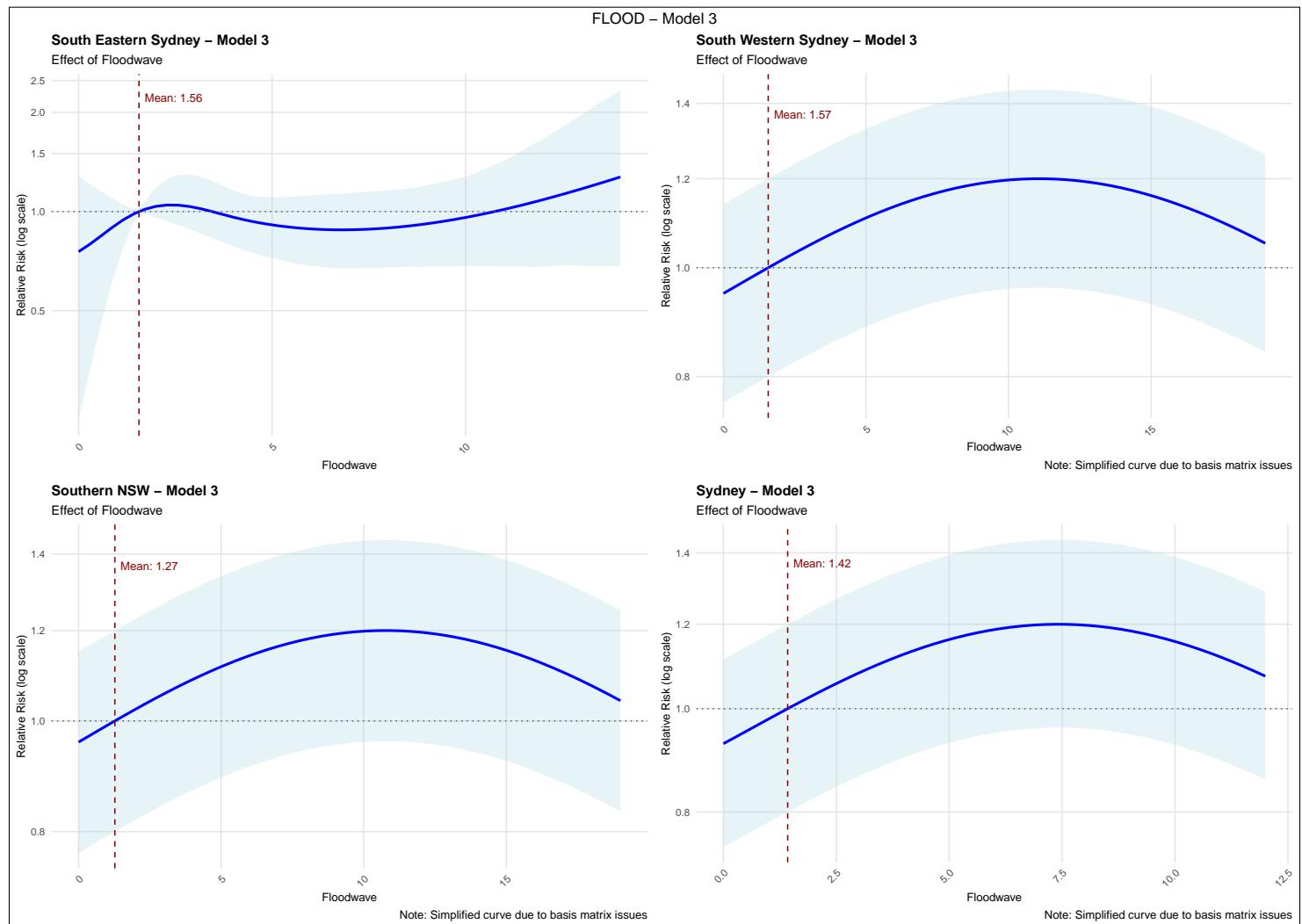


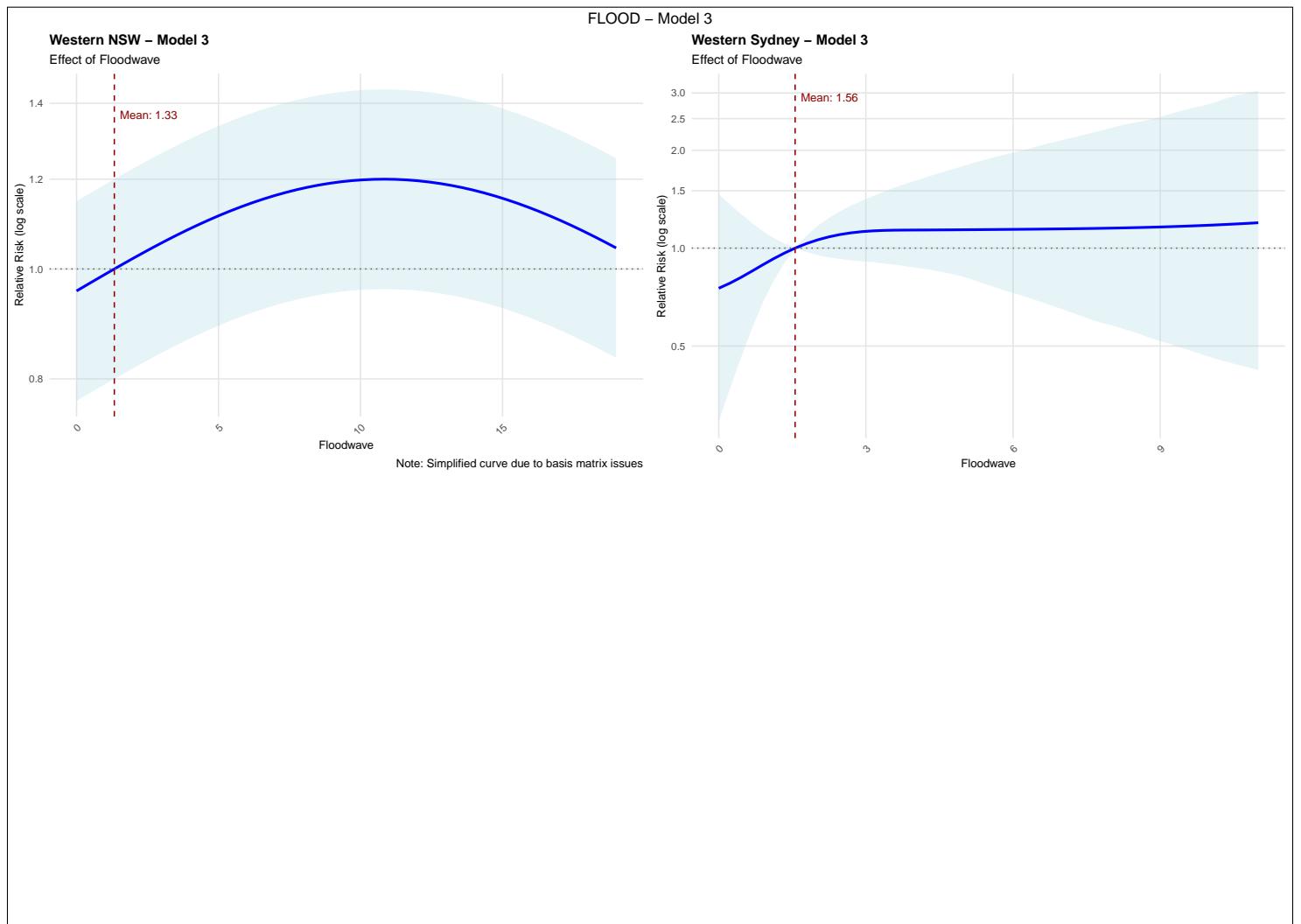


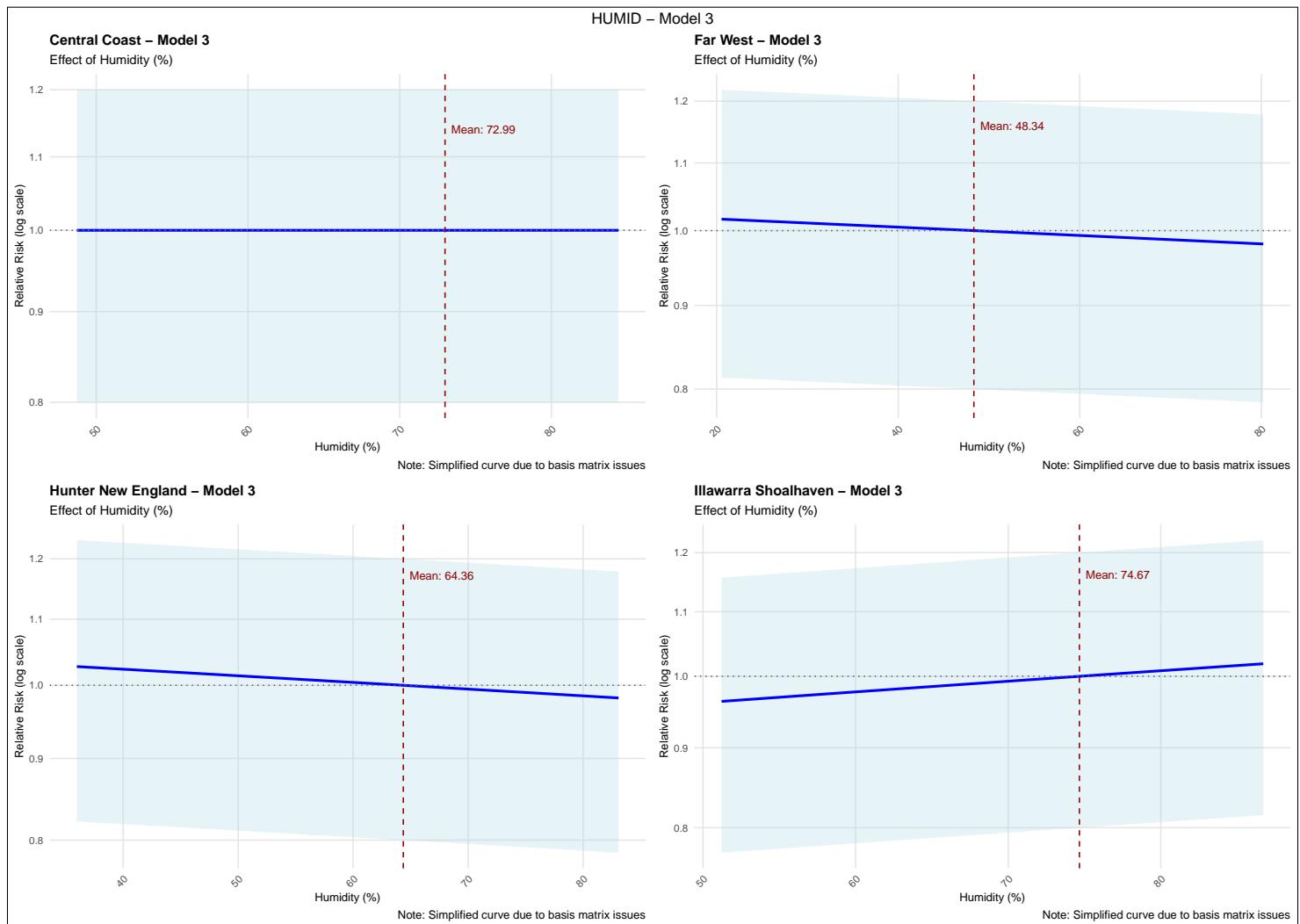


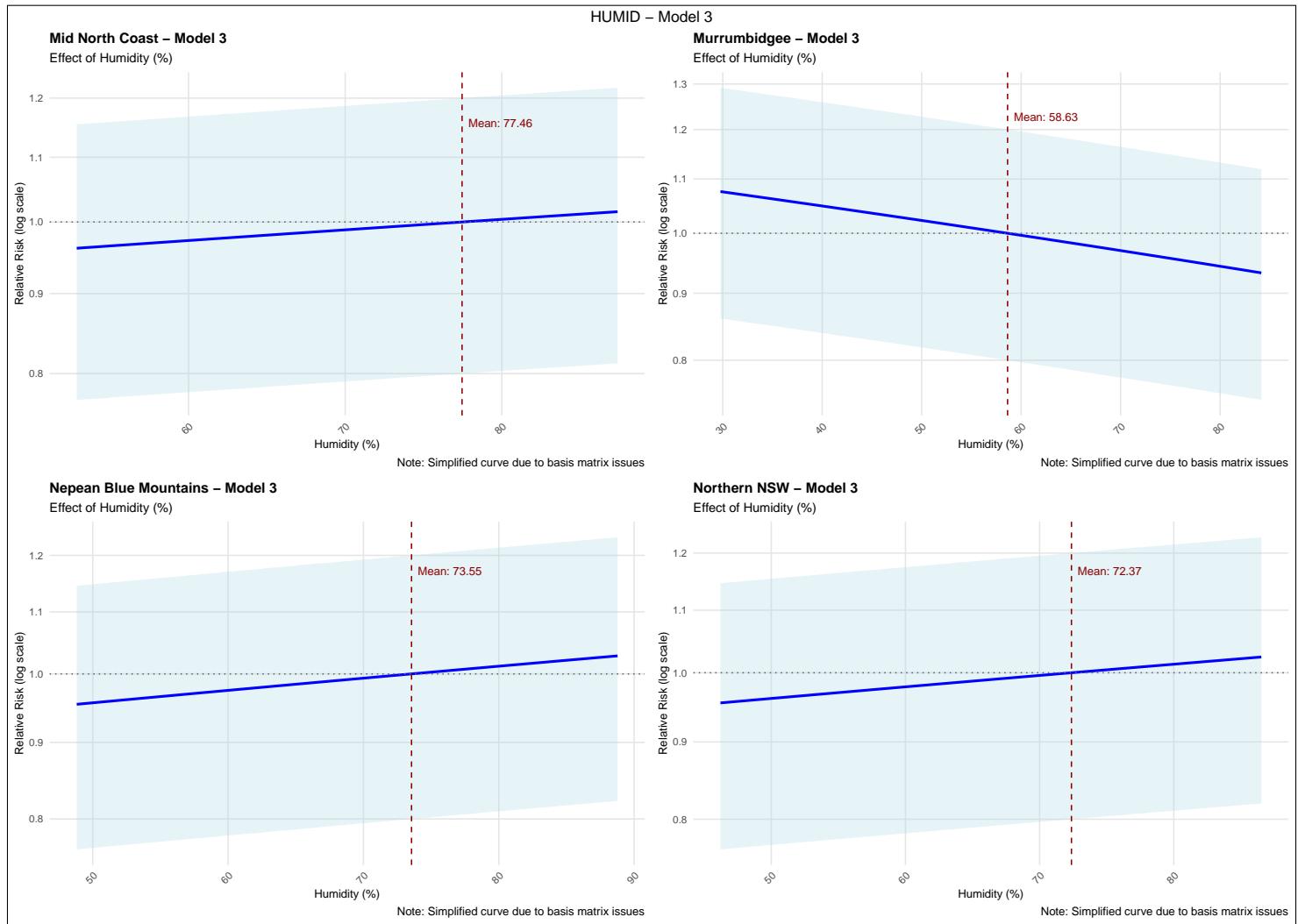


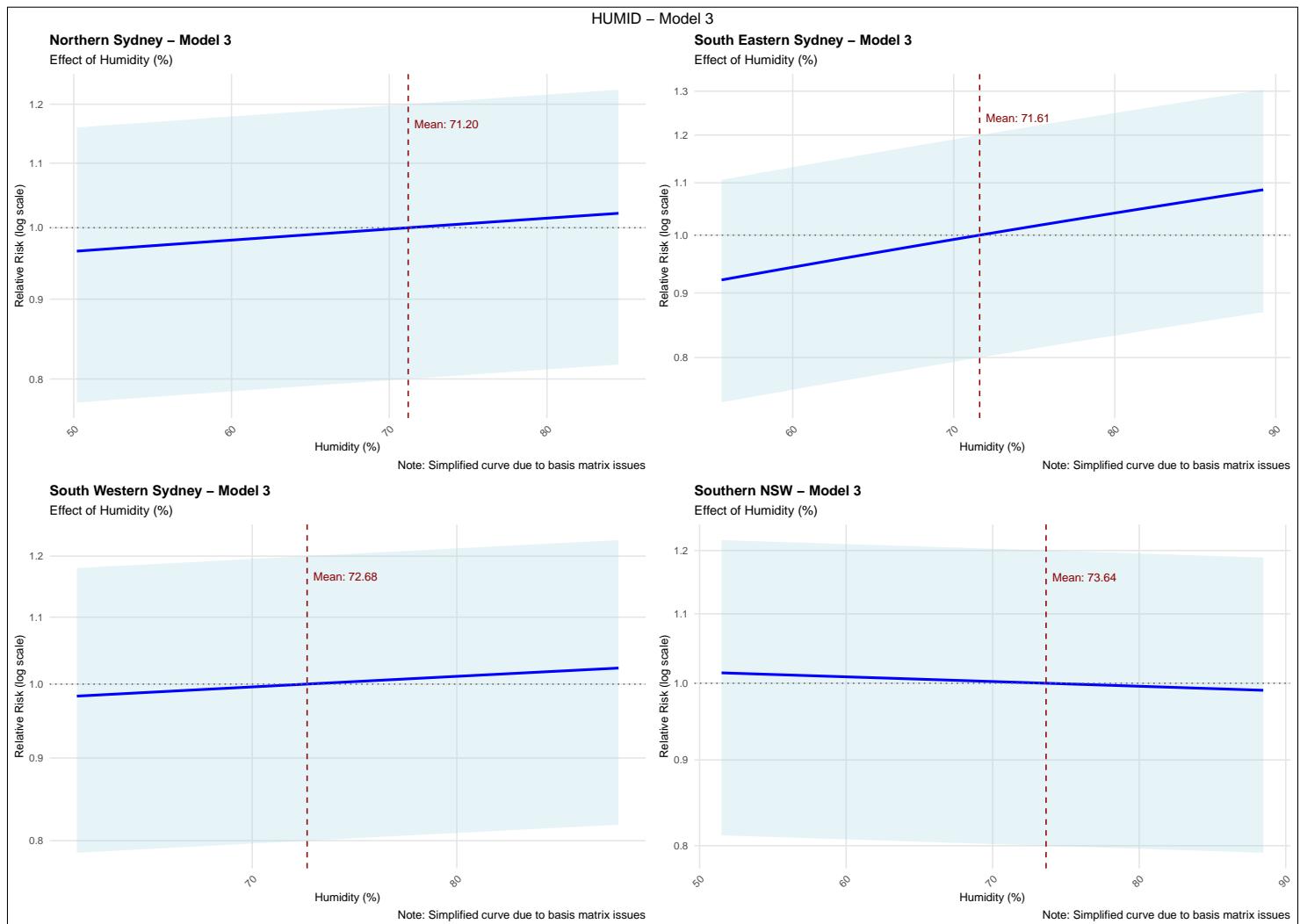


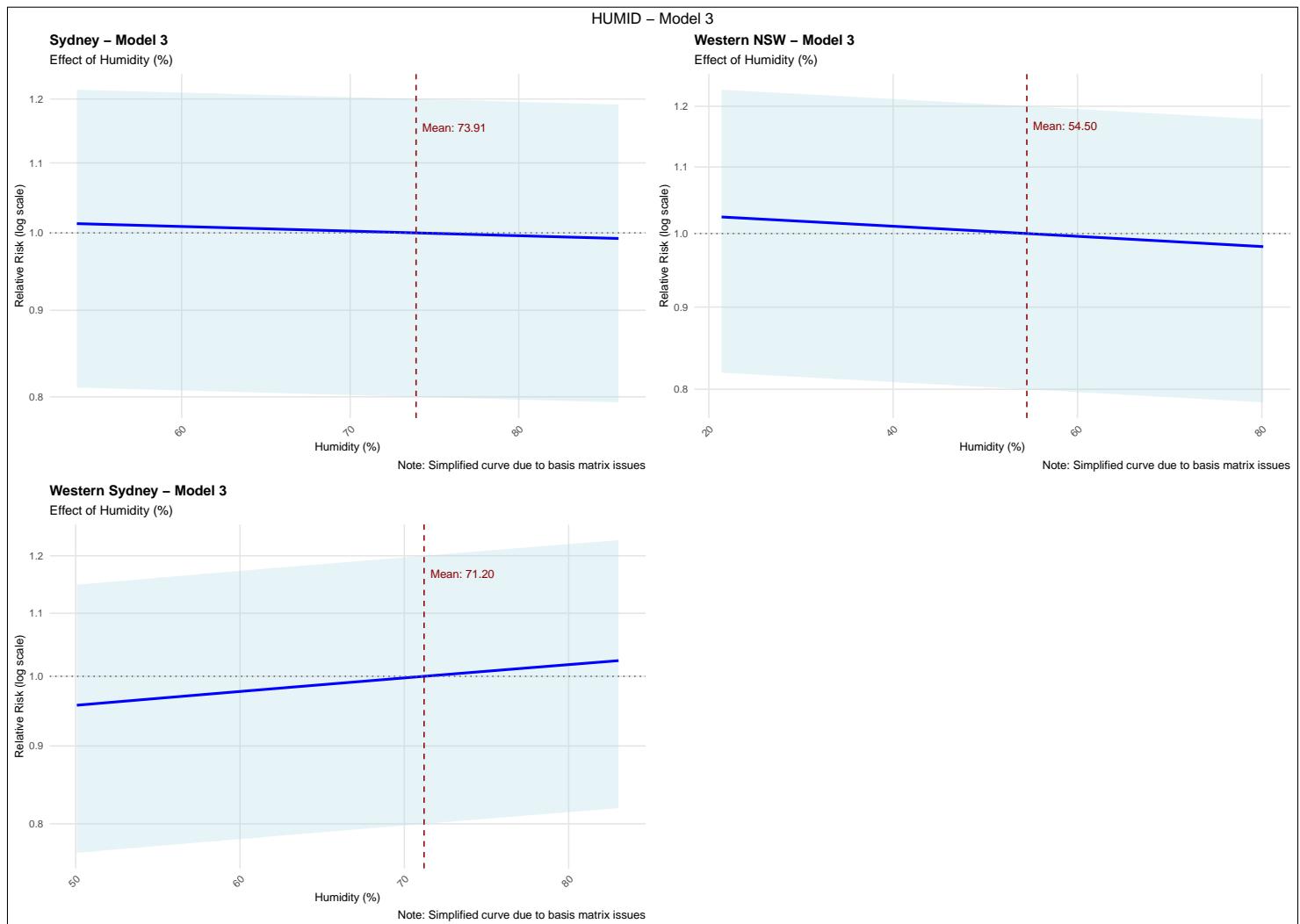


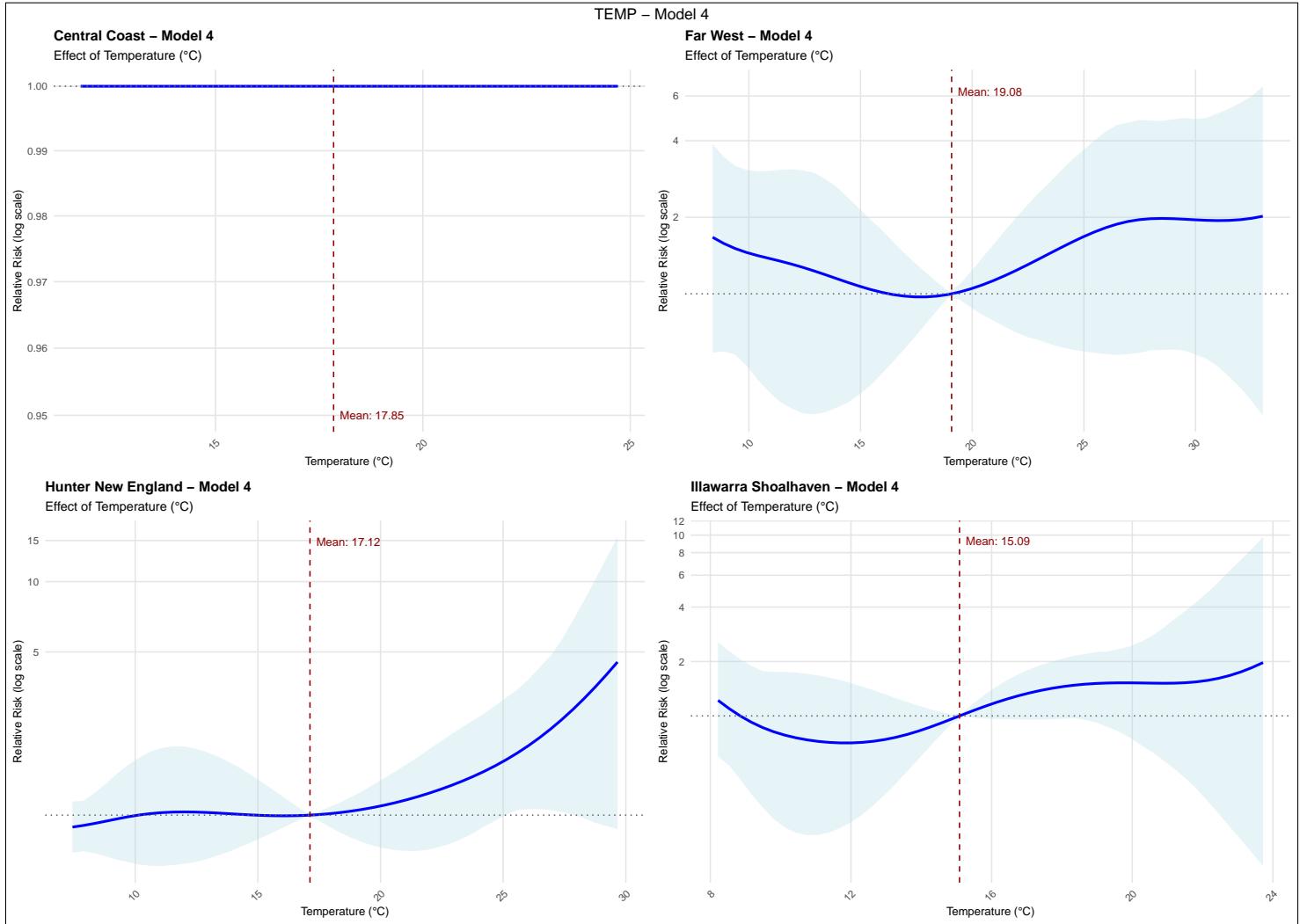


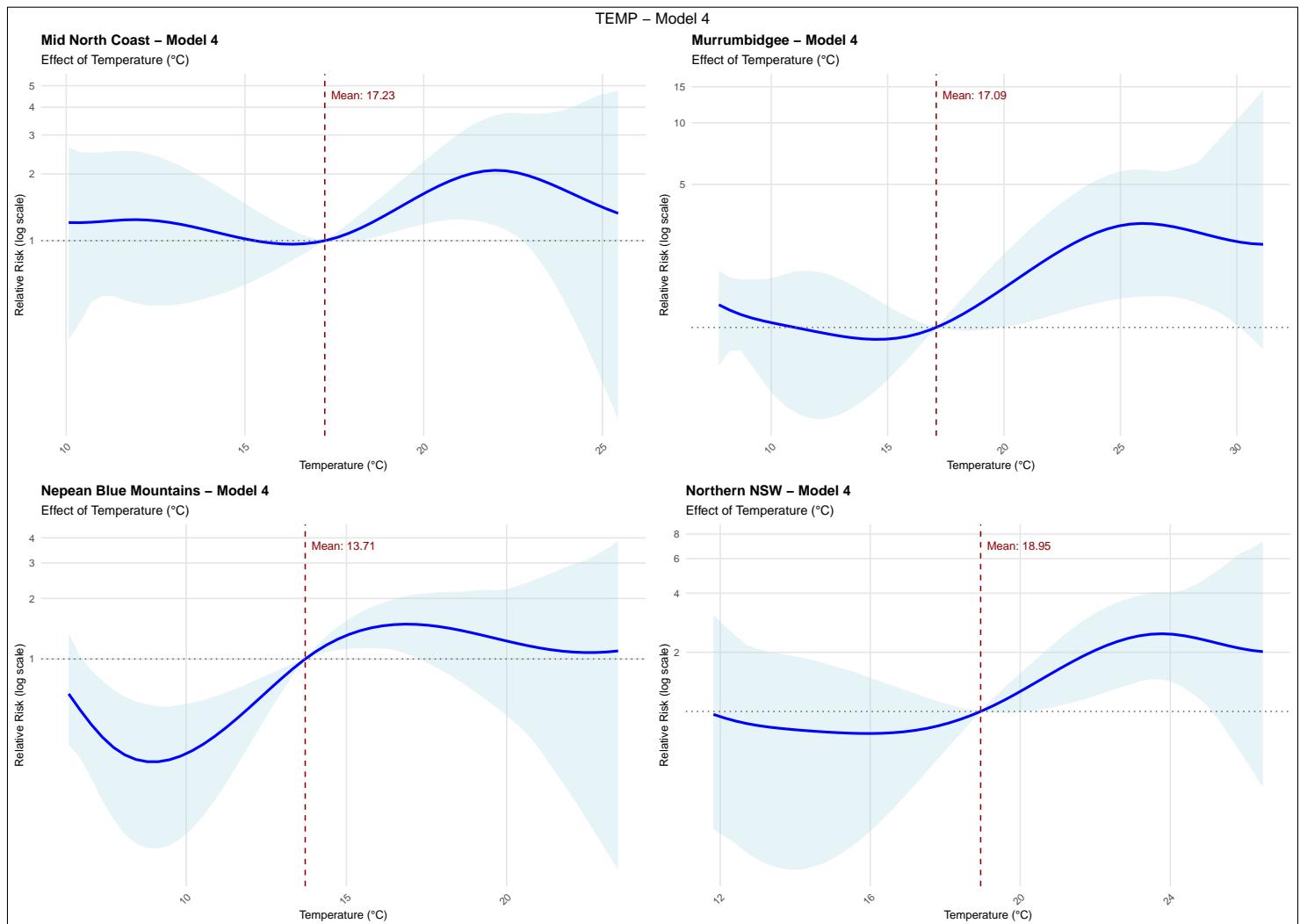


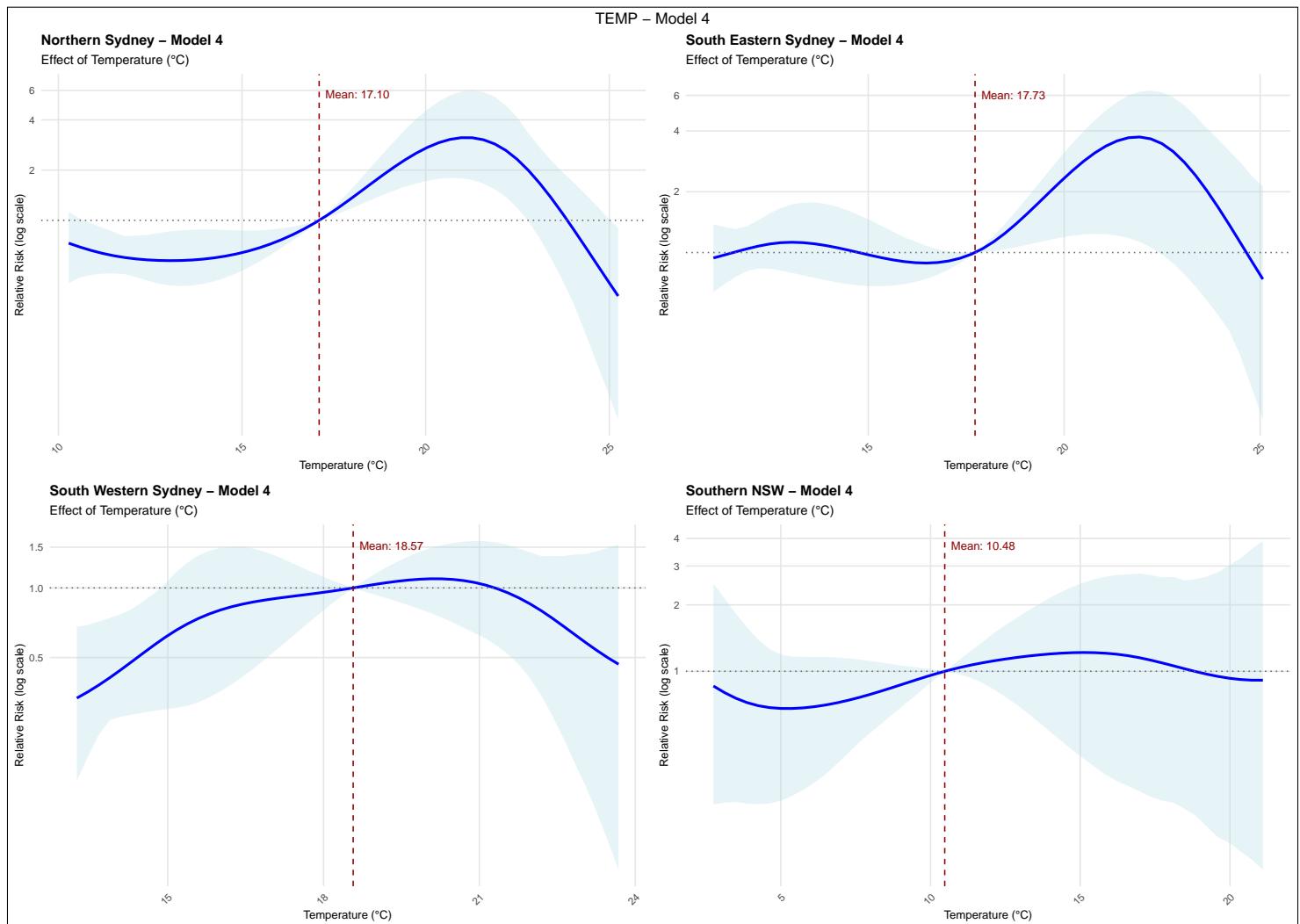


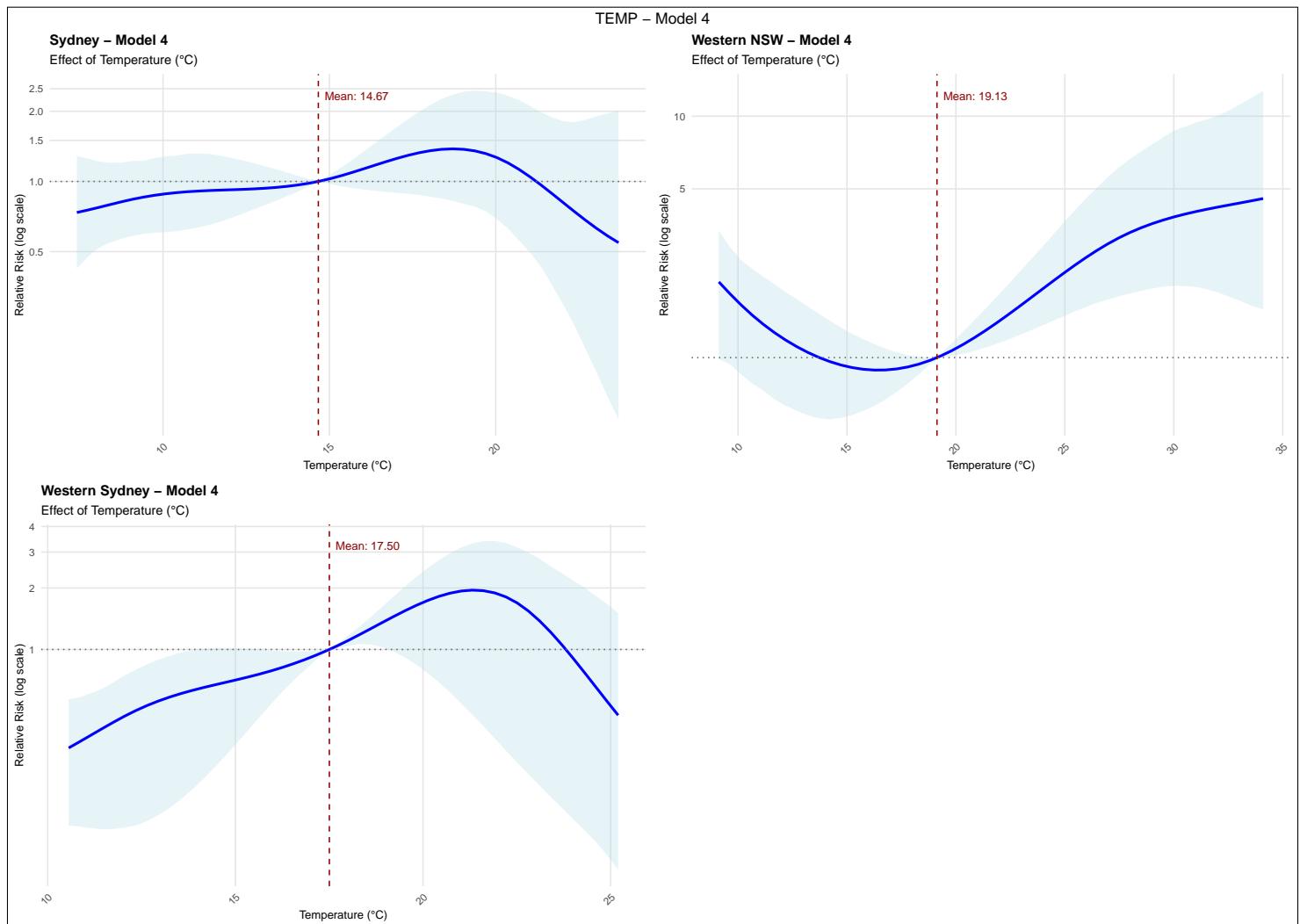


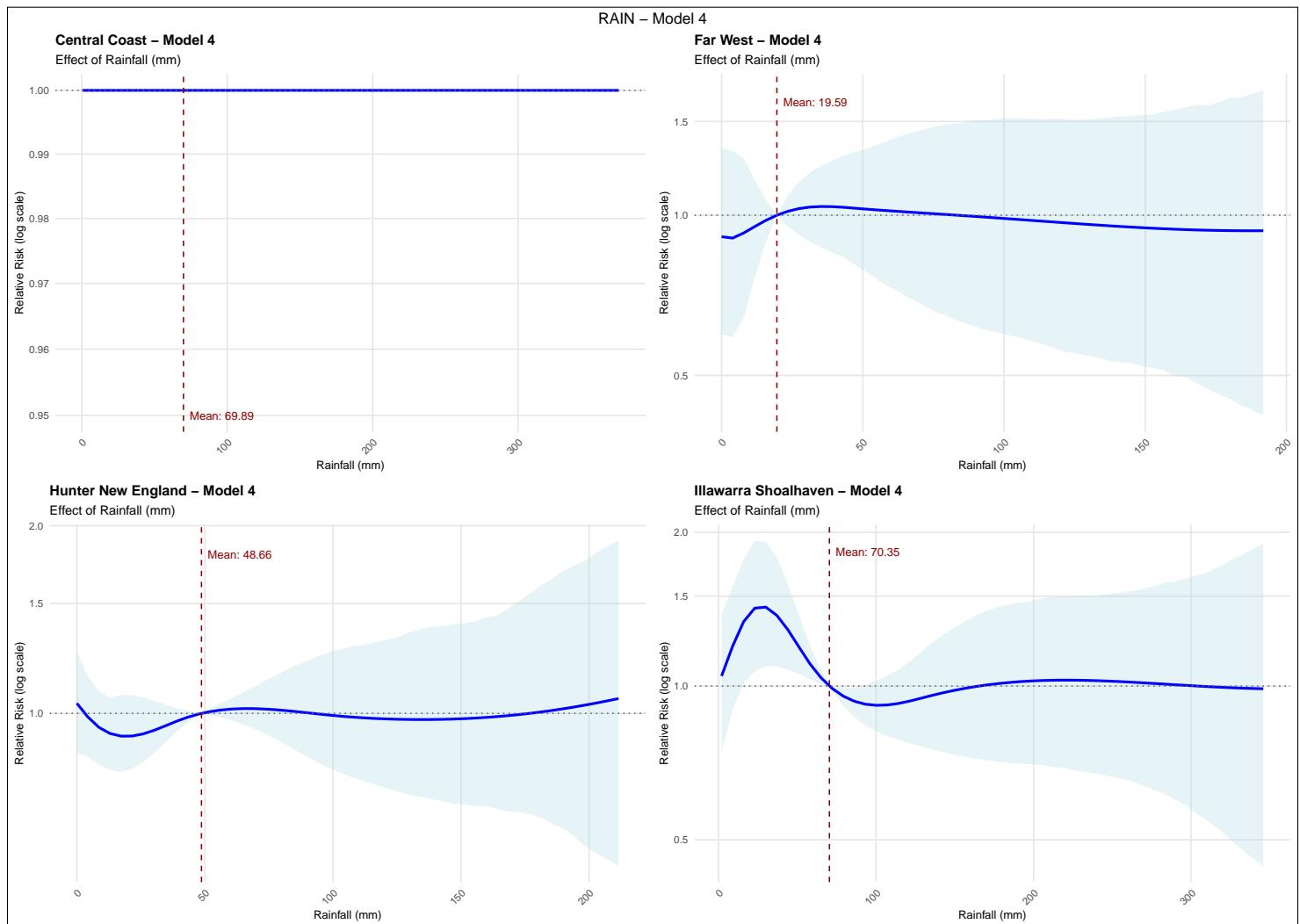


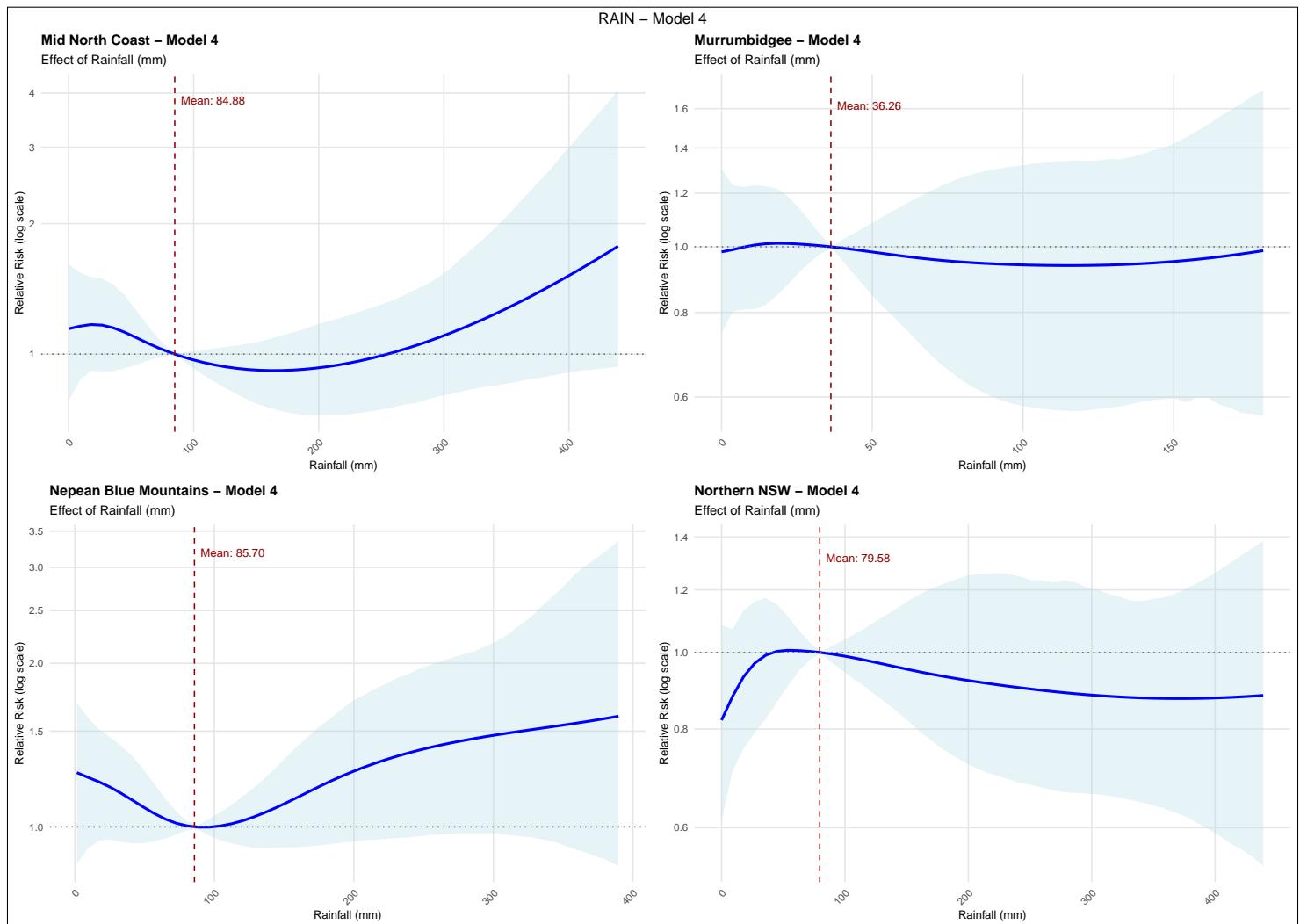


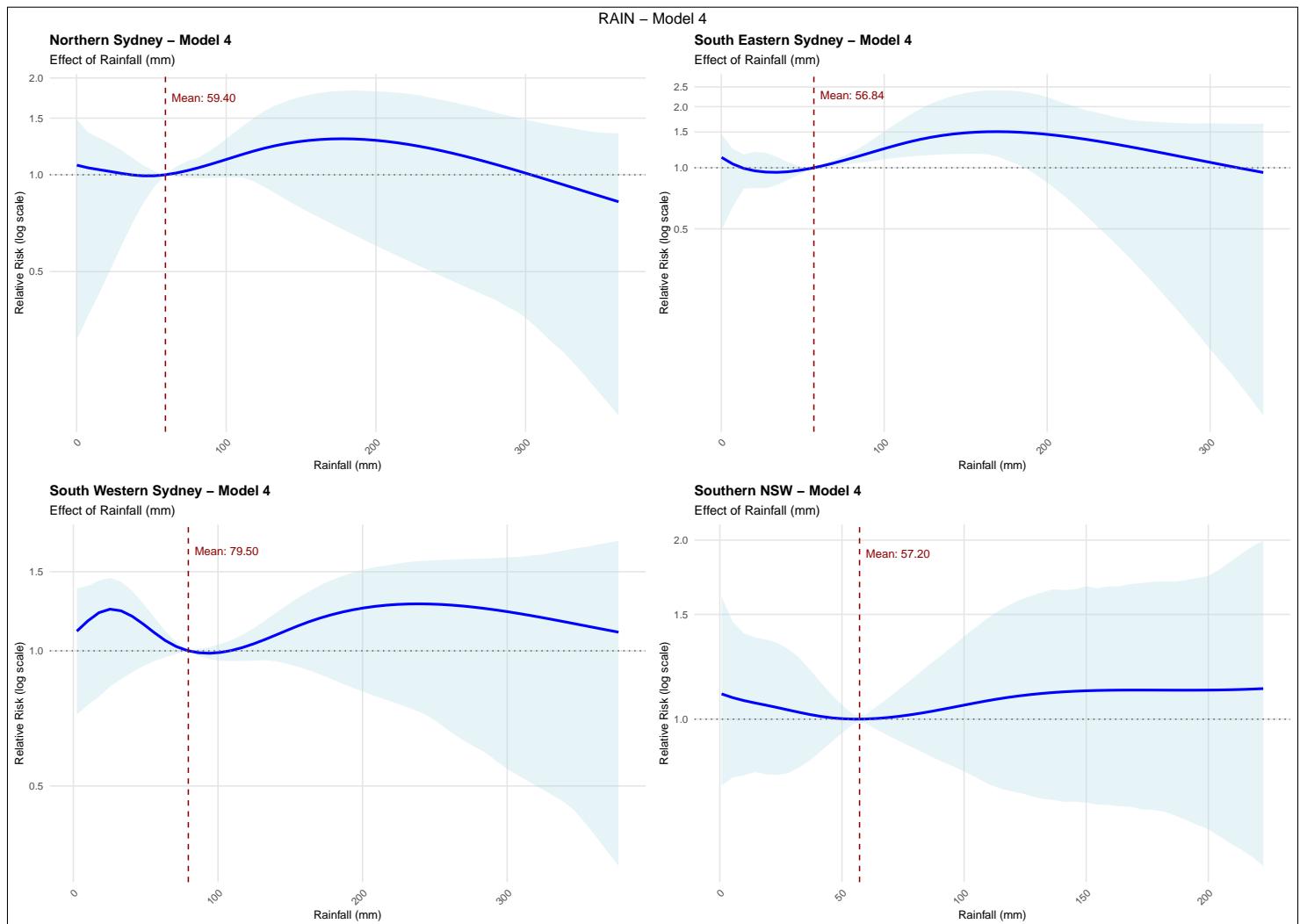


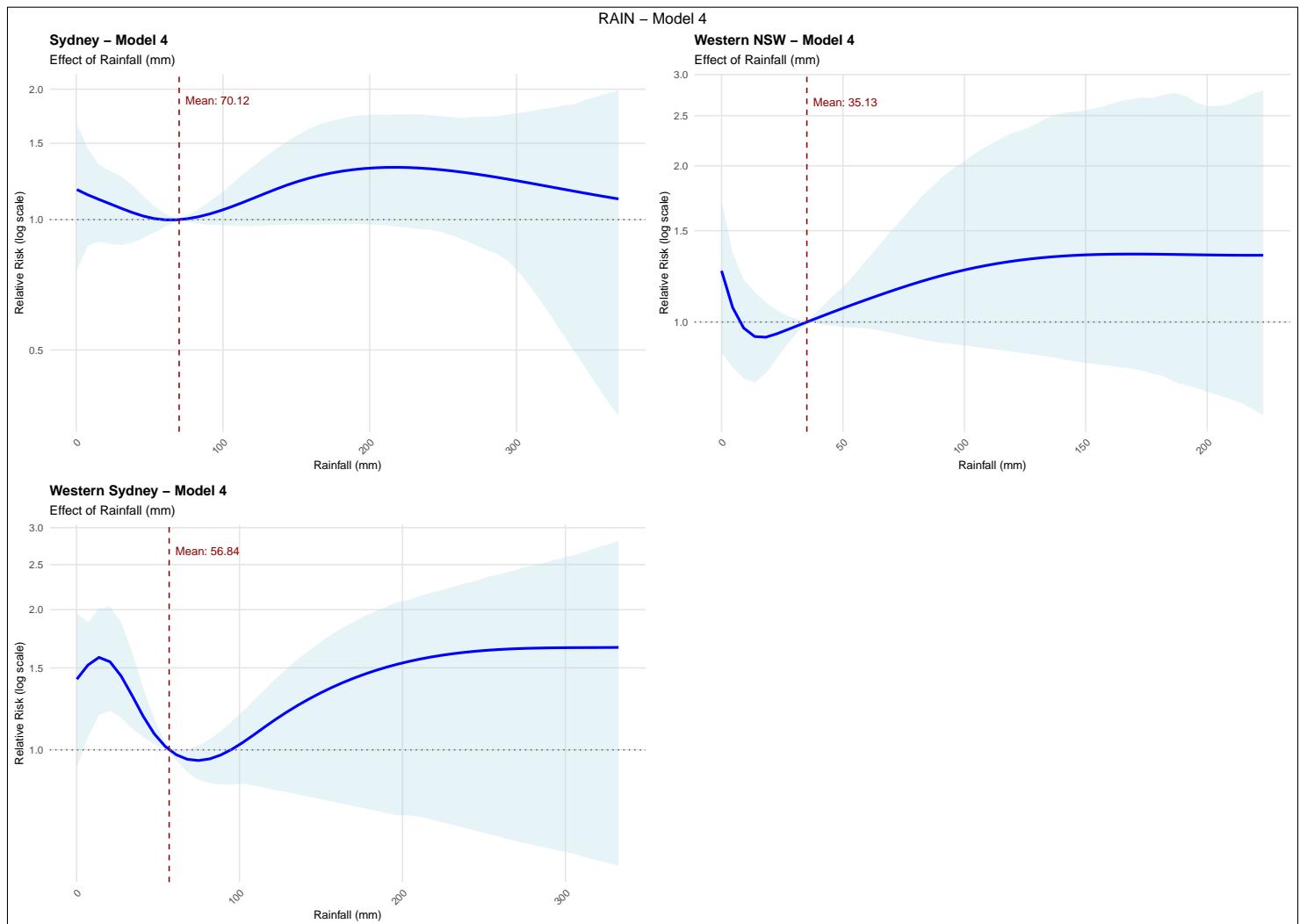


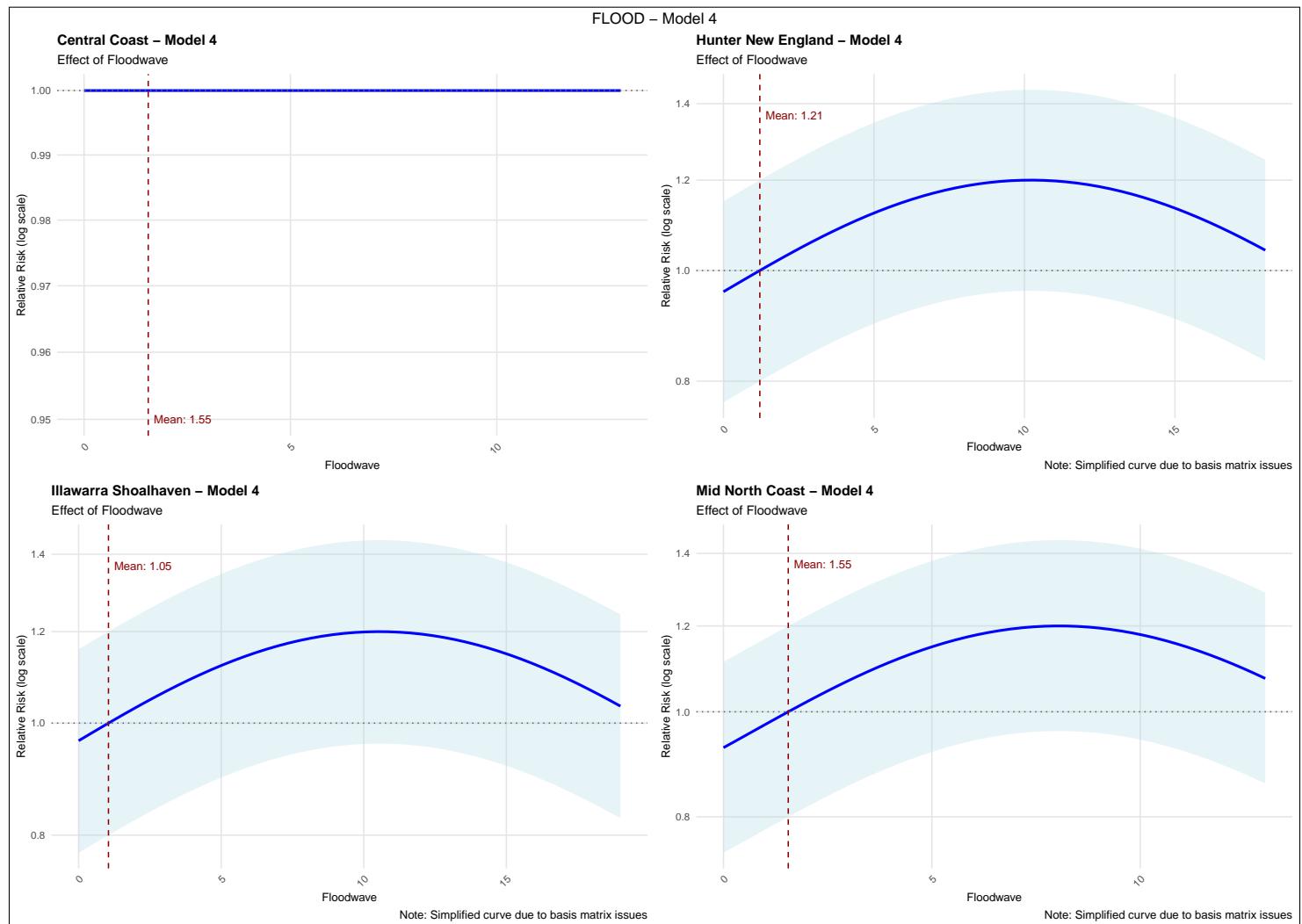


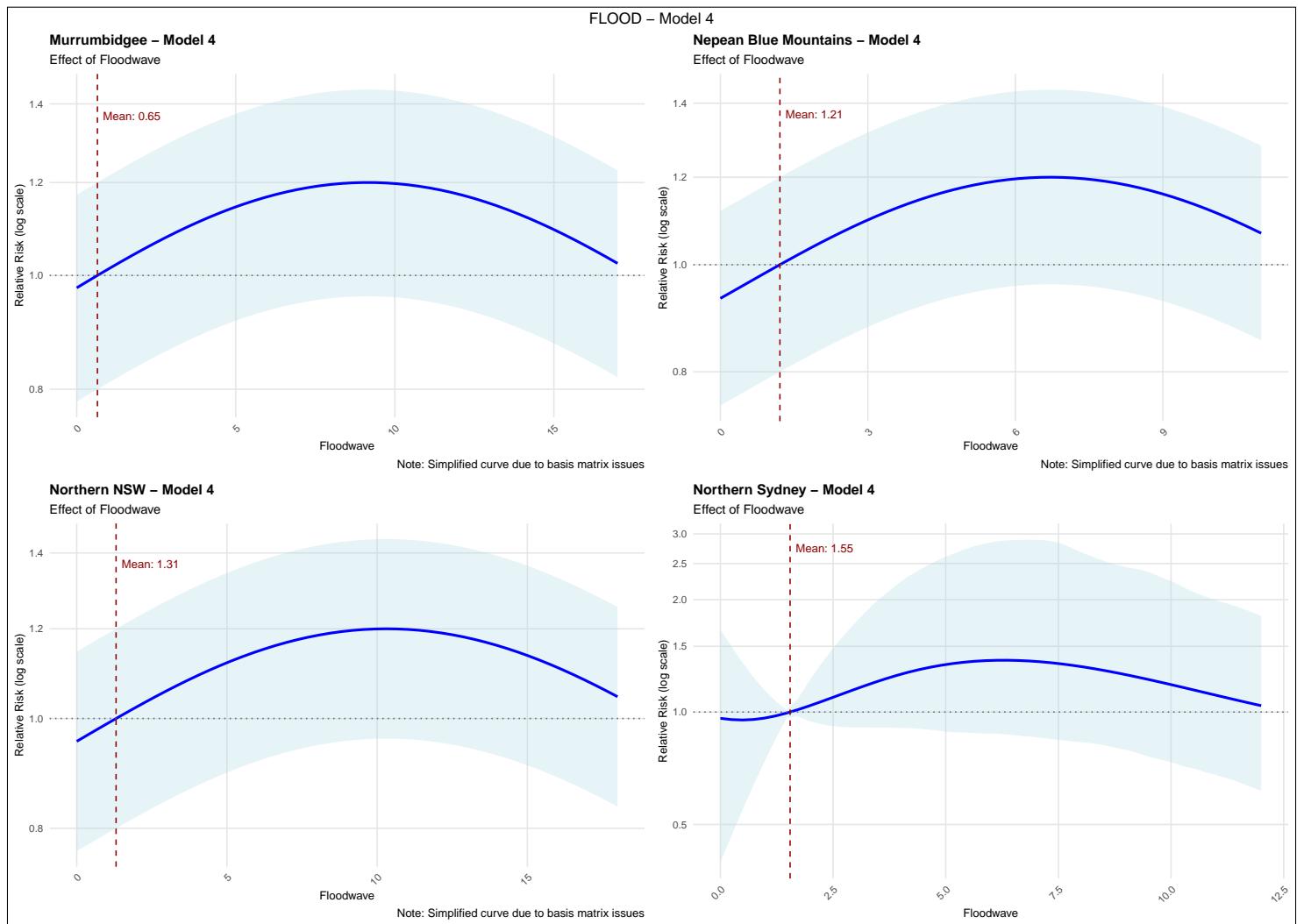


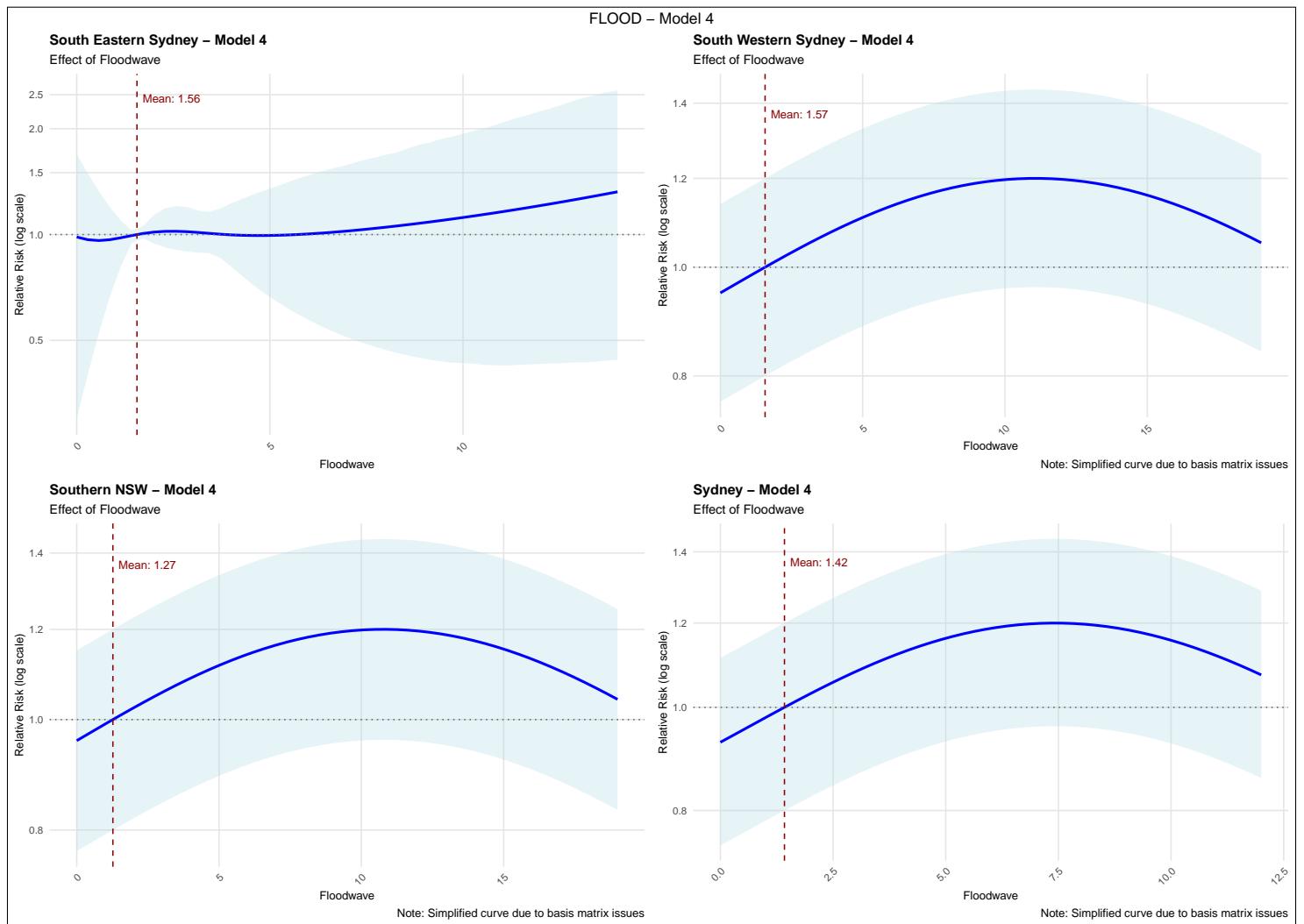


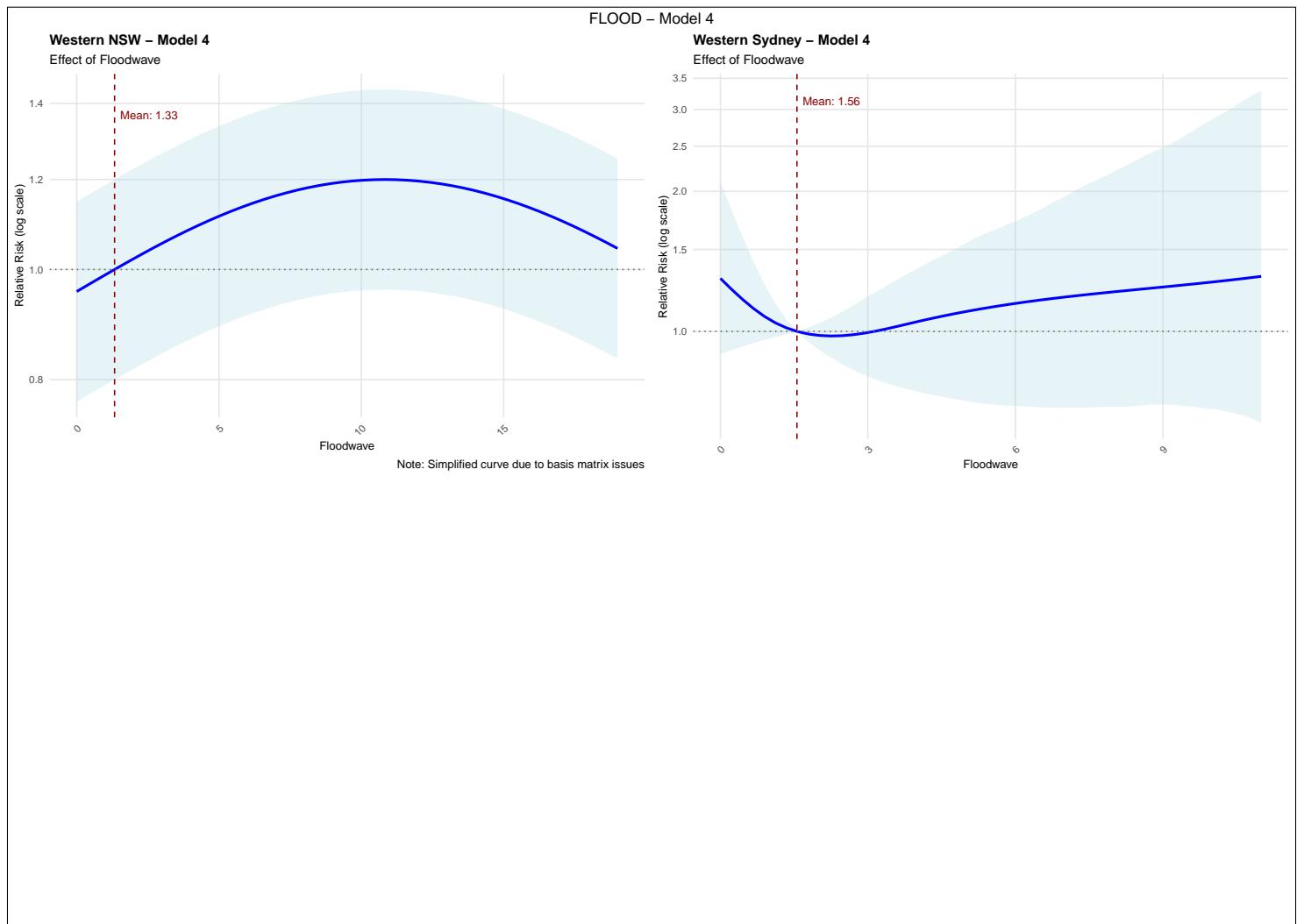


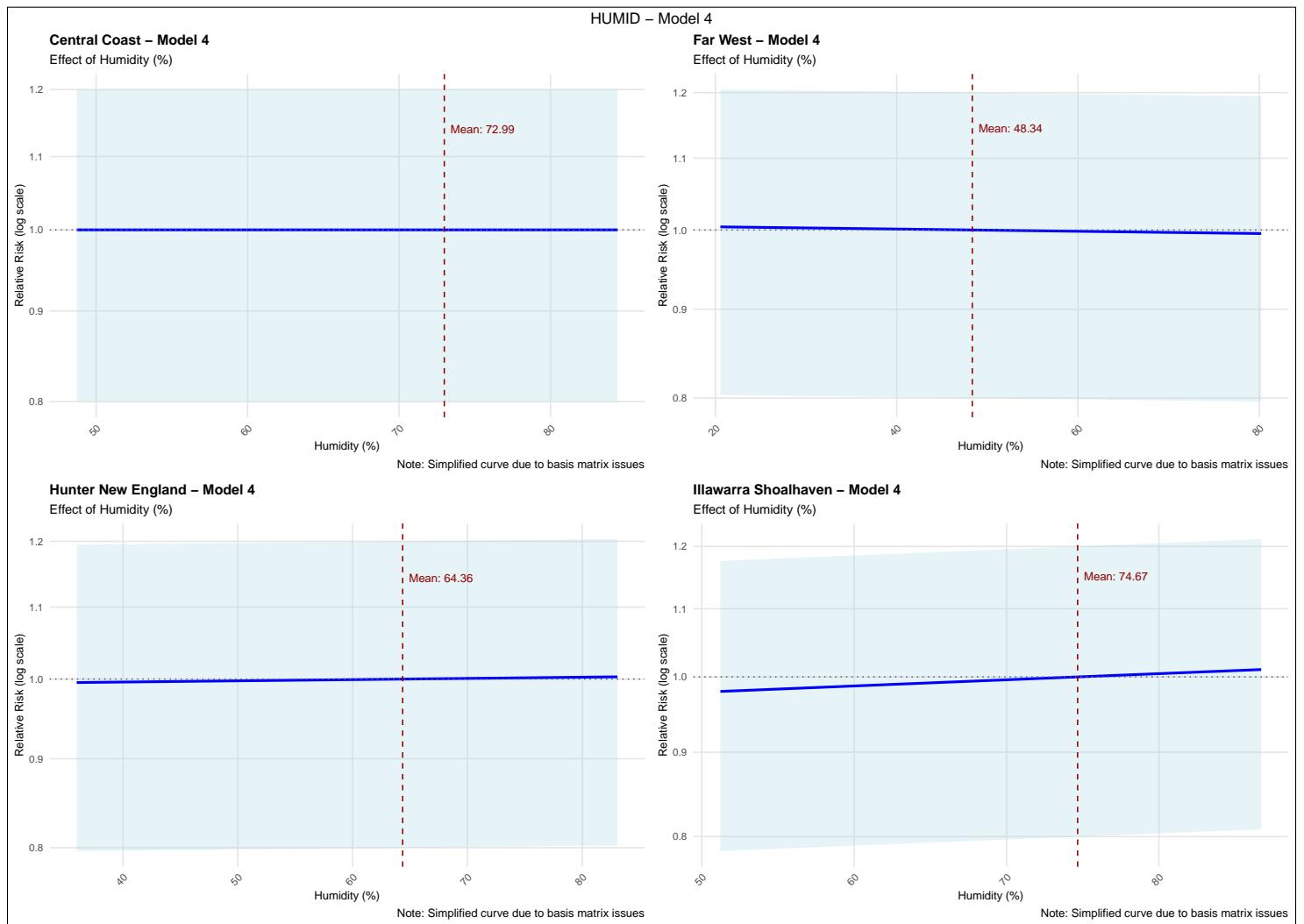


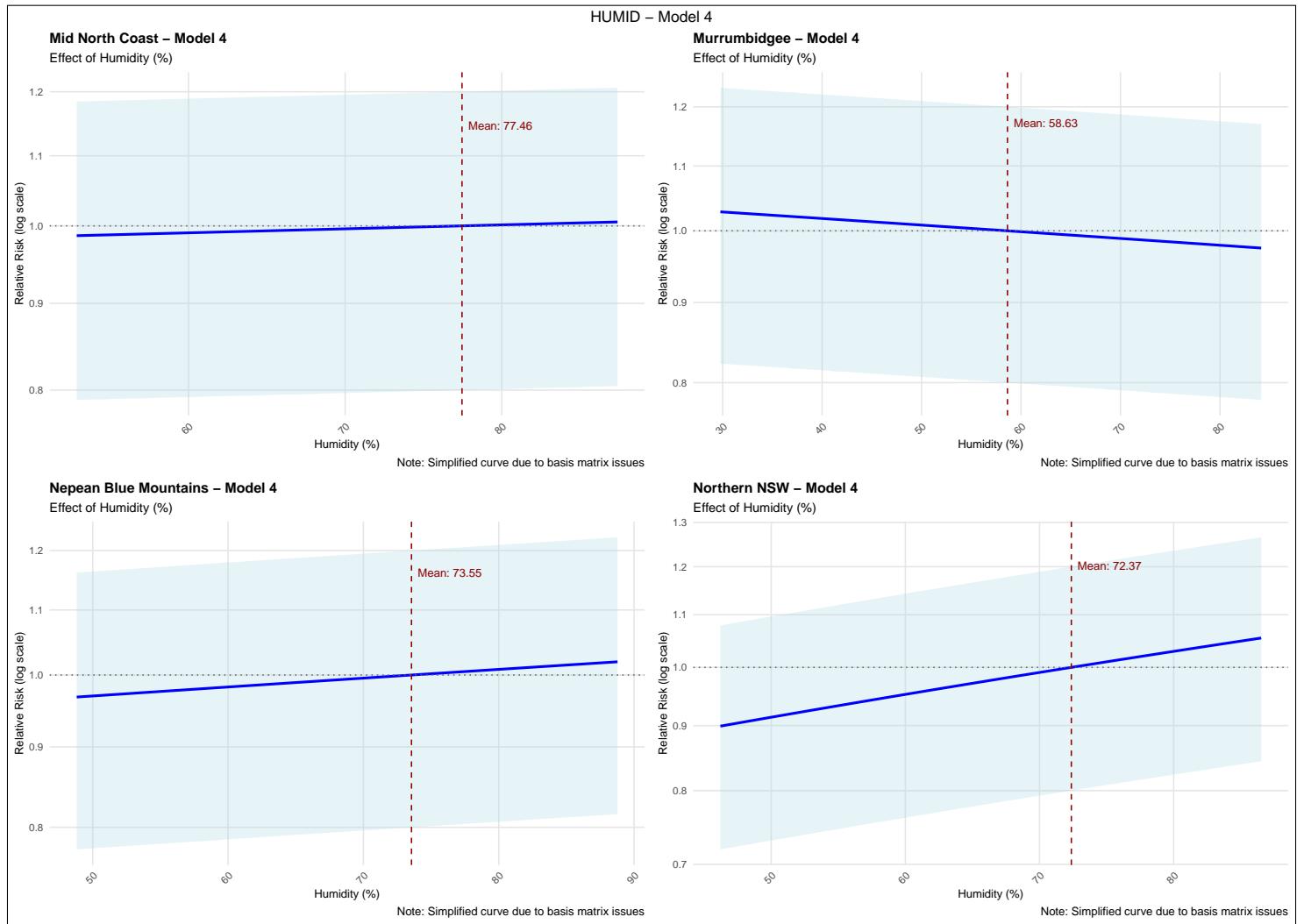


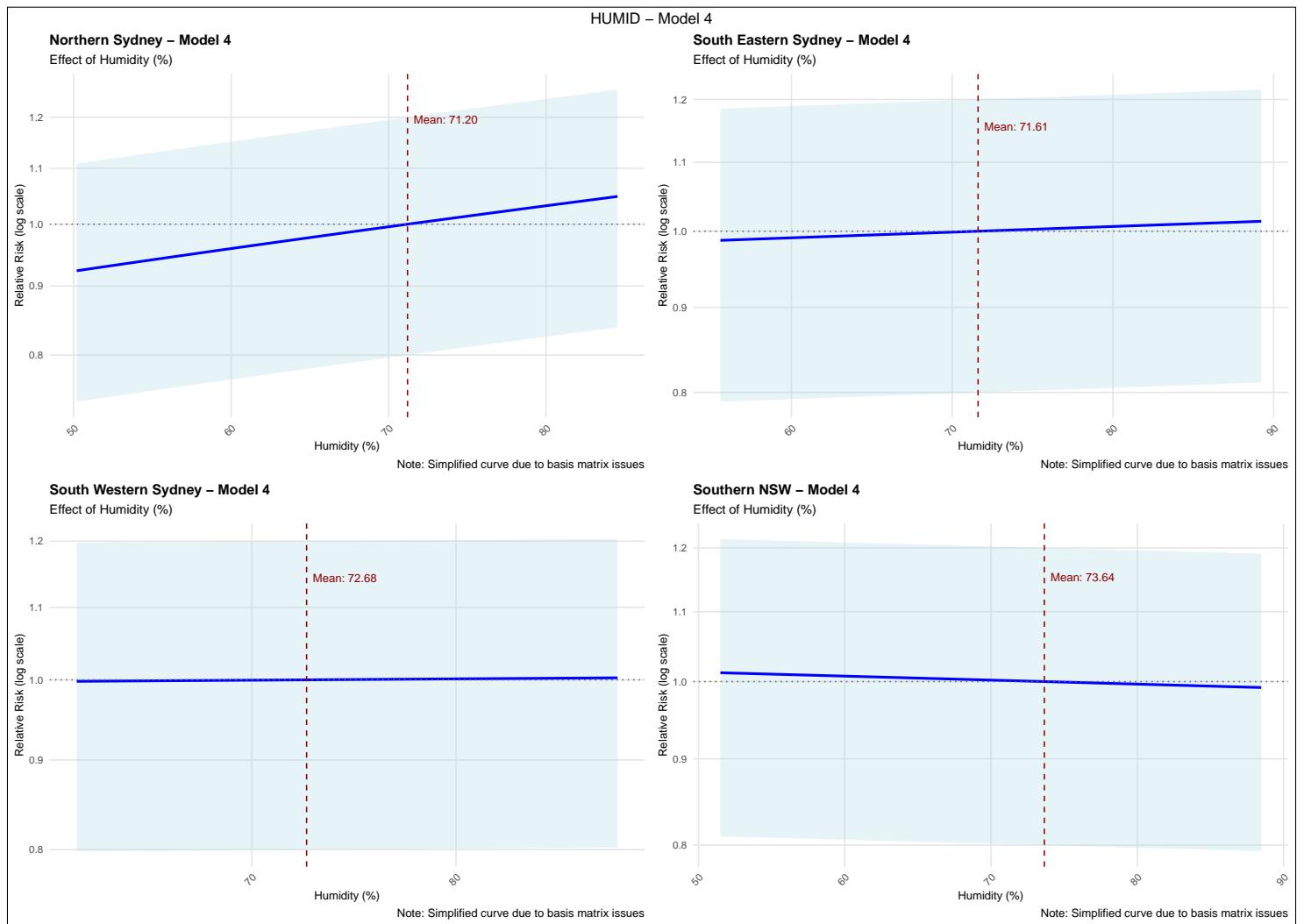


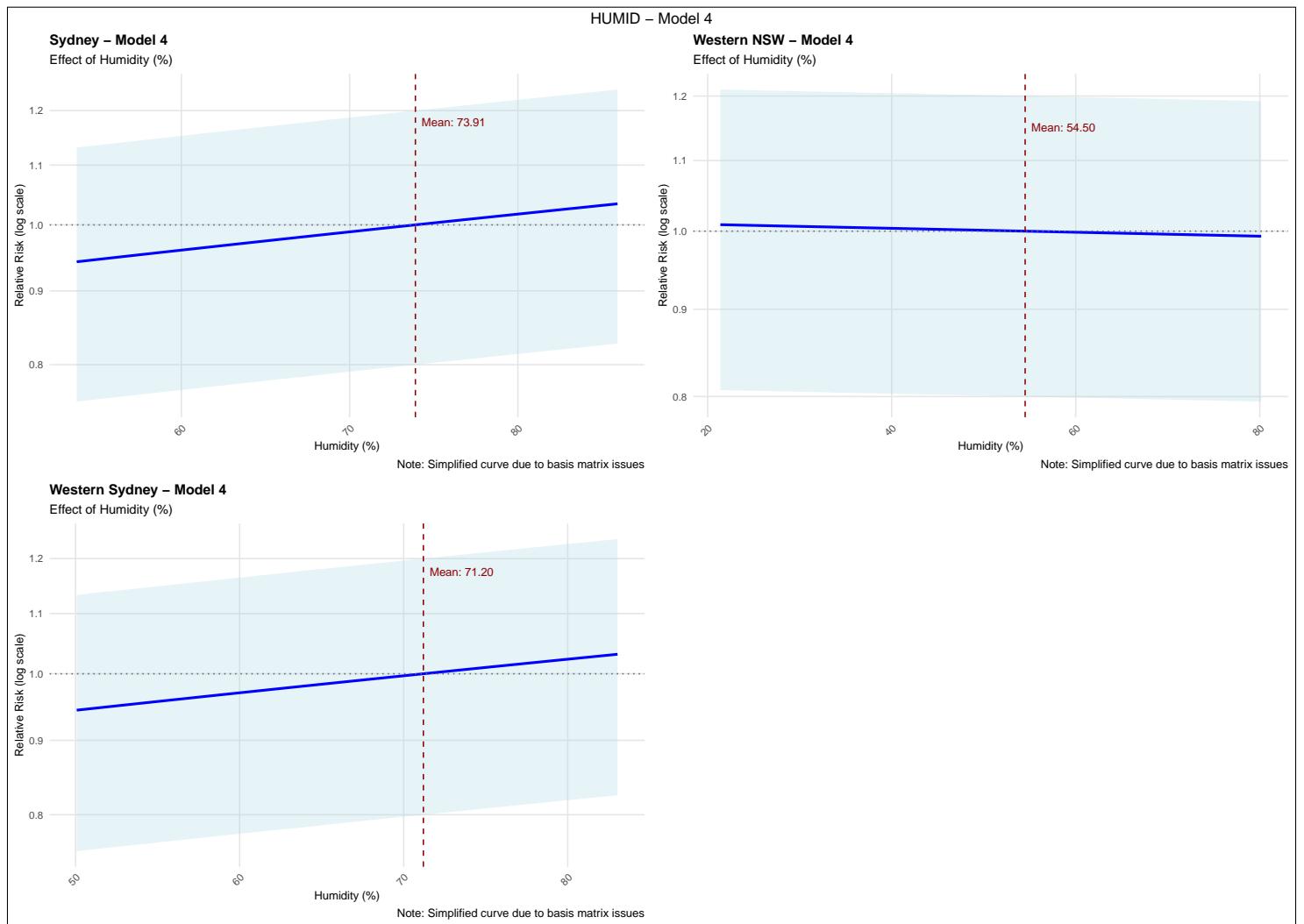












S.3 Probability maps for case-crossover DLNM (CC)

Posterior probability that relative risk (RR) exceeds certain thresholds across NSW for Case-crossover DLNM.



Figure S.6: Posterior probability map illustrating $P(\text{RR} > 1.0, 1.2, 1.5)$ under CC DLNM for different climate exposures. Darker colors indicate higher confidence that the relative risk surpasses the chosen threshold. Some LHDs show distinct vulnerability to temperature, while others reflect rainfall or flooding concerns.

Model3: Probability Analysis

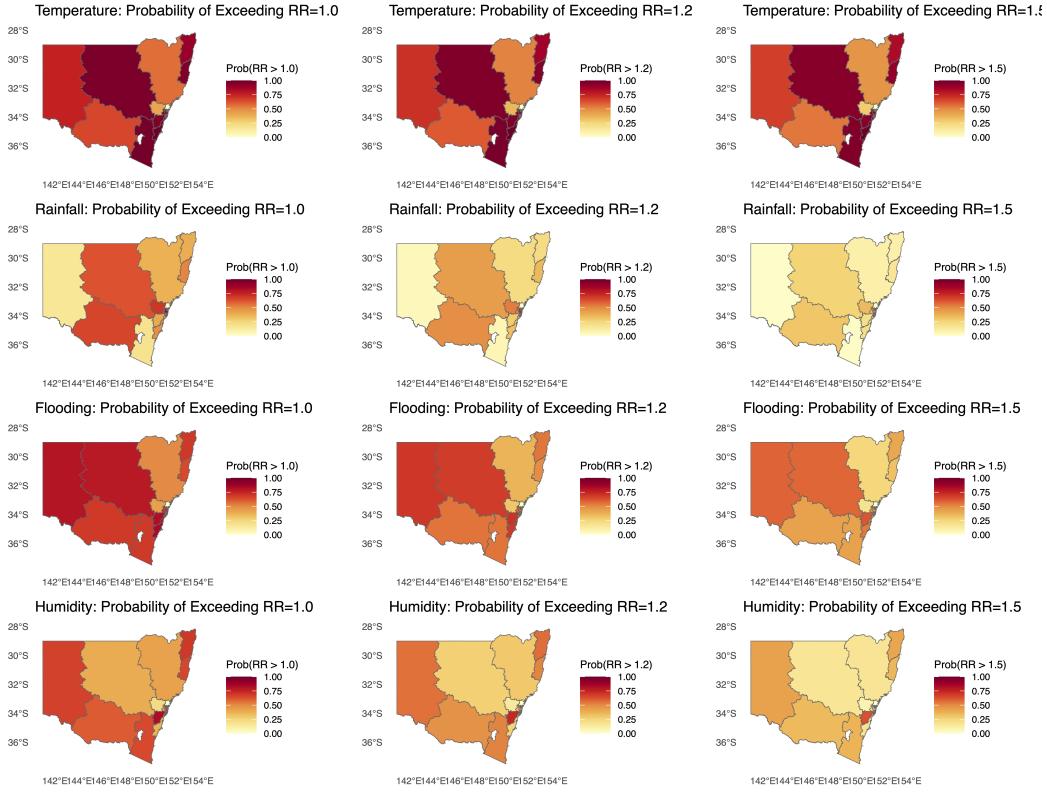


Figure S.7: An alternative or complementary probability map under CC-DLNM, possibly at different thresholds or for a different variable subset. These maps highlight localized patterns of exceedance risk, guiding targeted interventions in high-probability regions.