Posterior predictive checking:
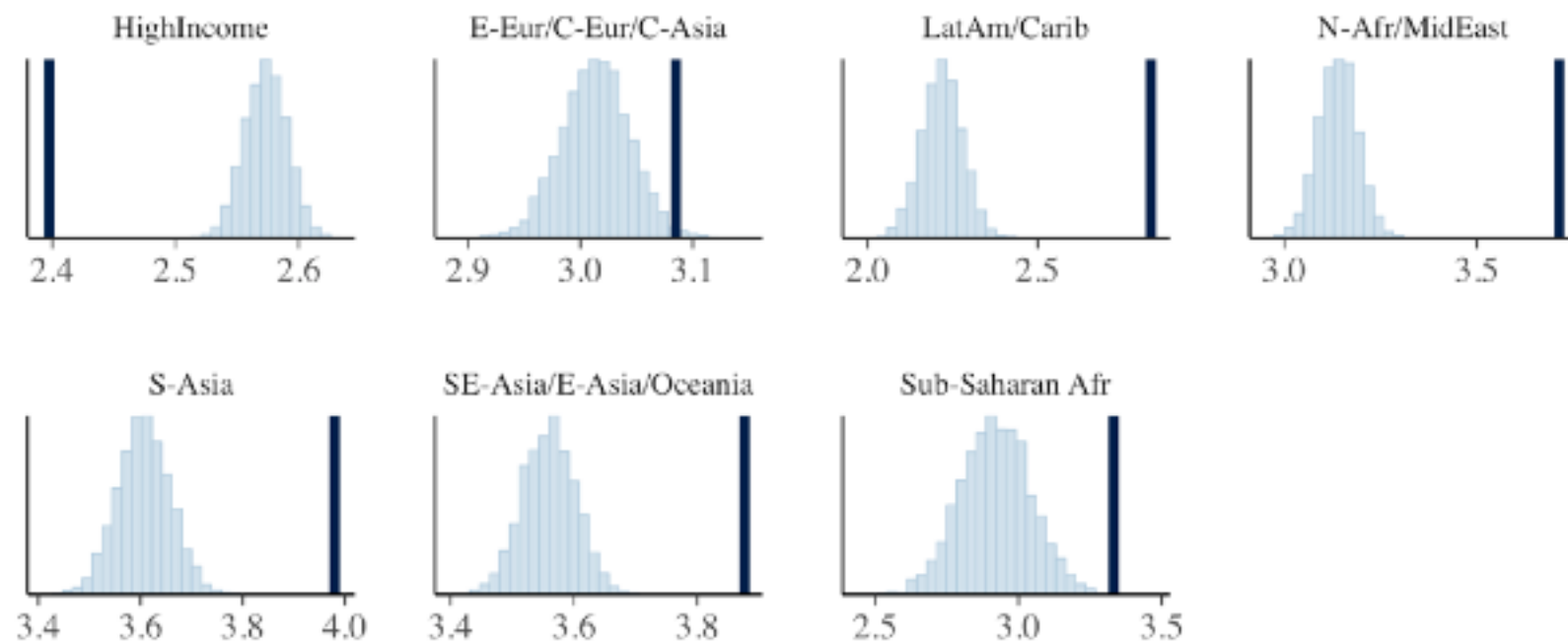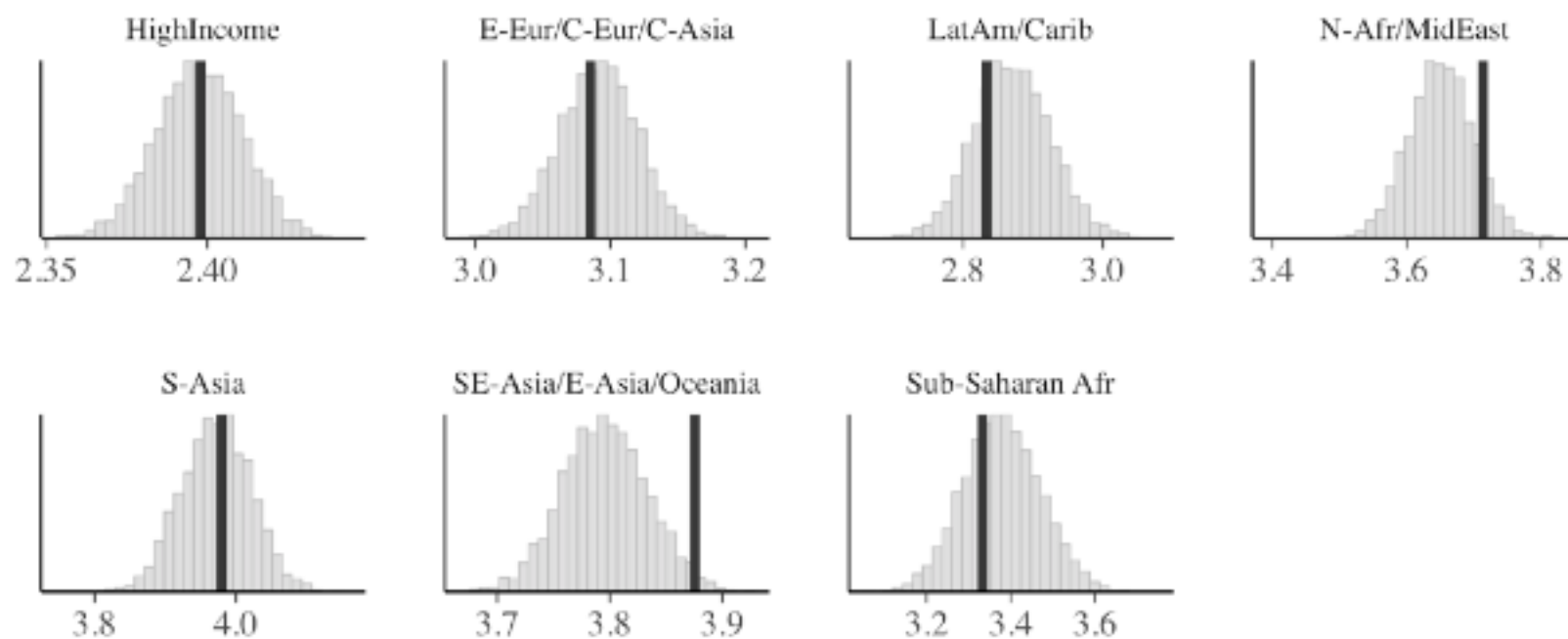visual model evaluation

Model 1 (single level)

$$T(y) = \mathrm{med}(y|\mathrm{region})$$

Model 2 (multilevel)

Model comparison

Pointwise predictive comparisons & LOO-CV