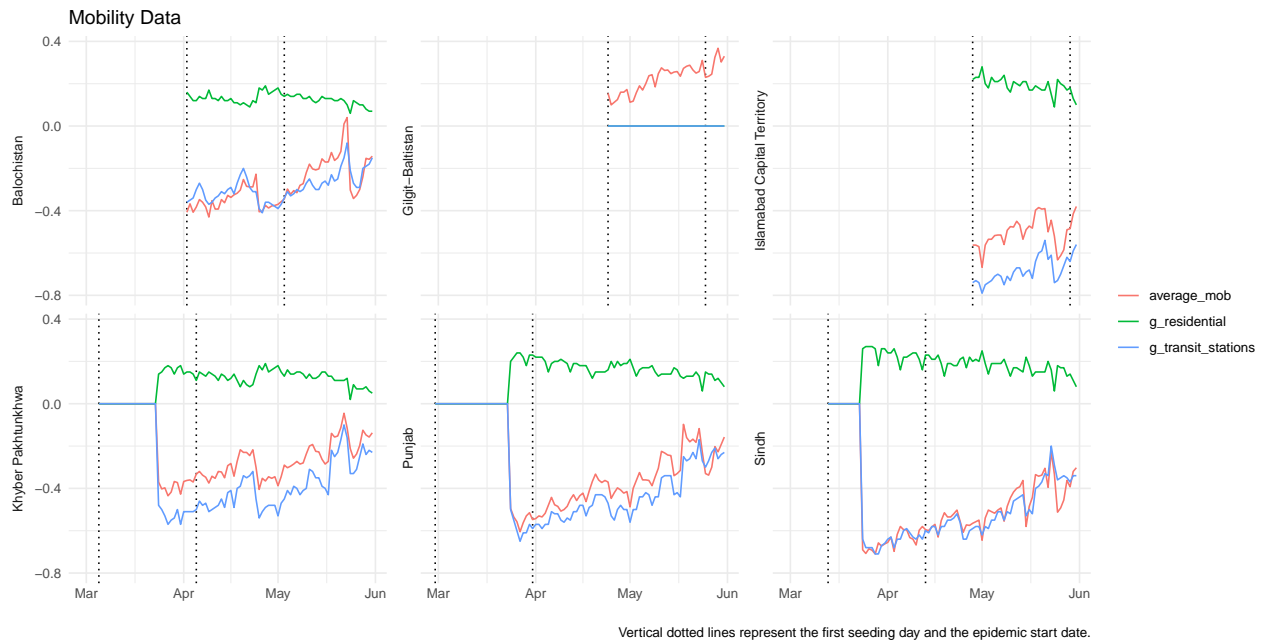
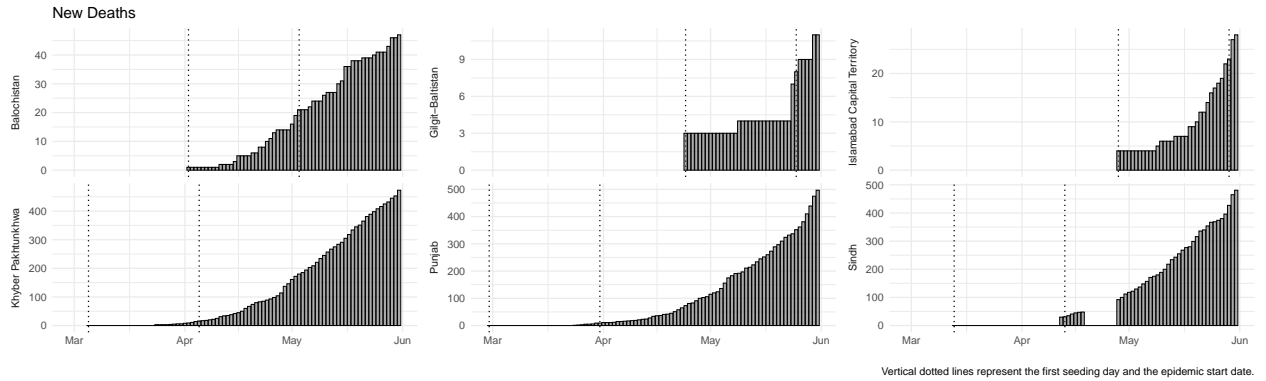


# Pakistan

## Data



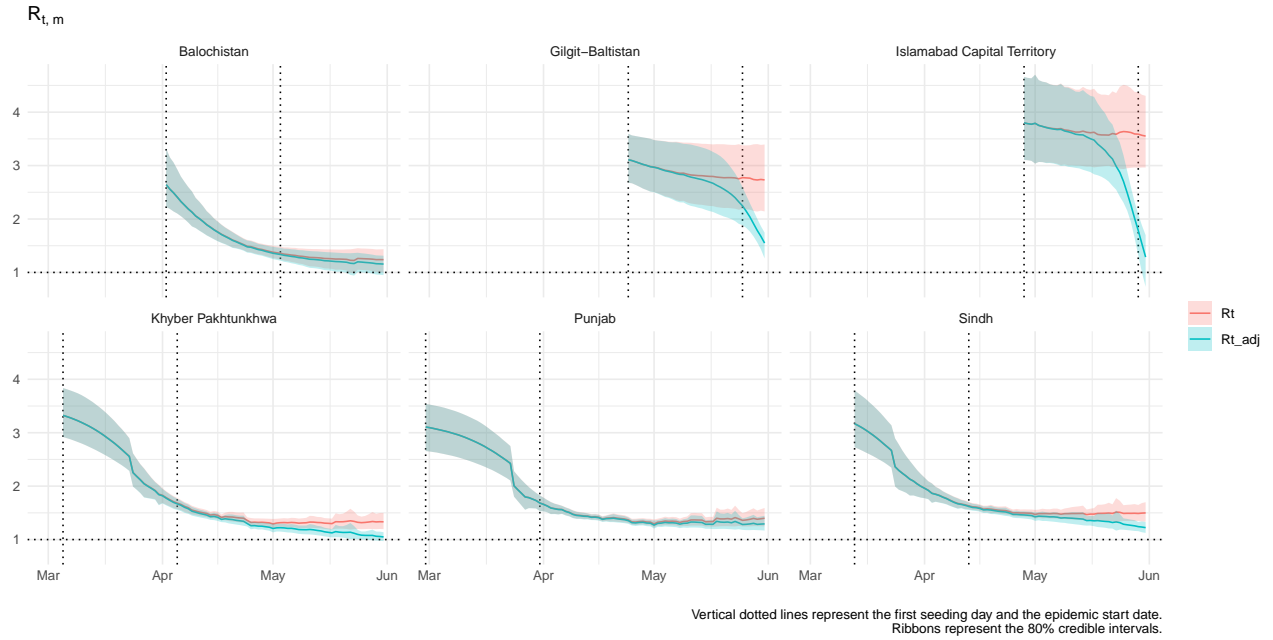
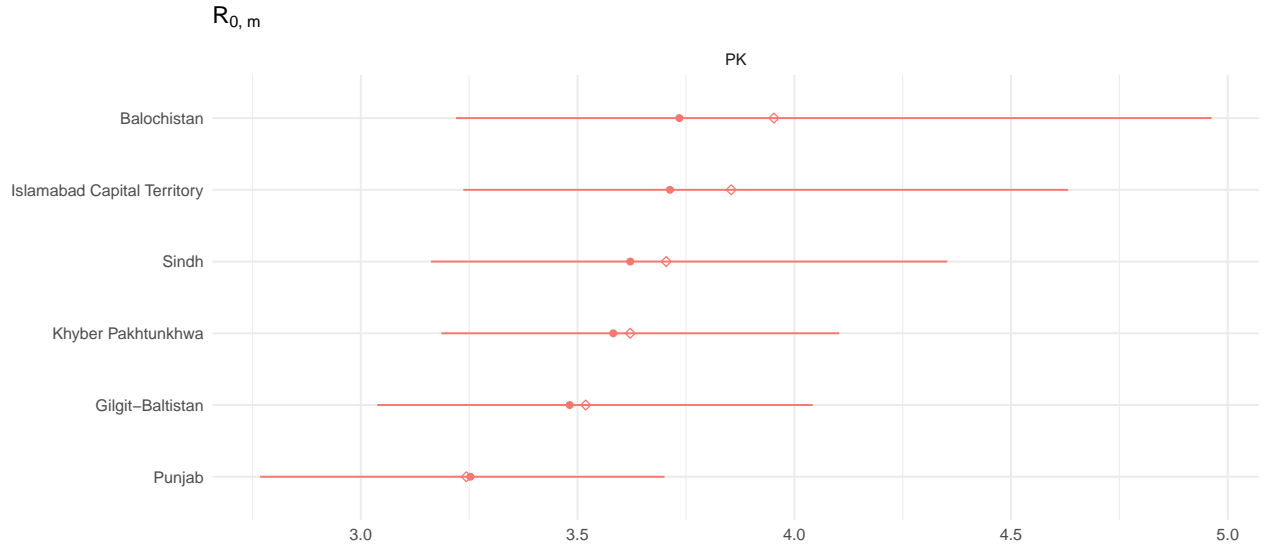
## Analysis

Number of divergent transitions = 0

Maximum  $\hat{R} = 1.008288$

Minimum Bulk ESS = 980.6153

Minimum Tail ESS = 927.7618



Contact rate function:

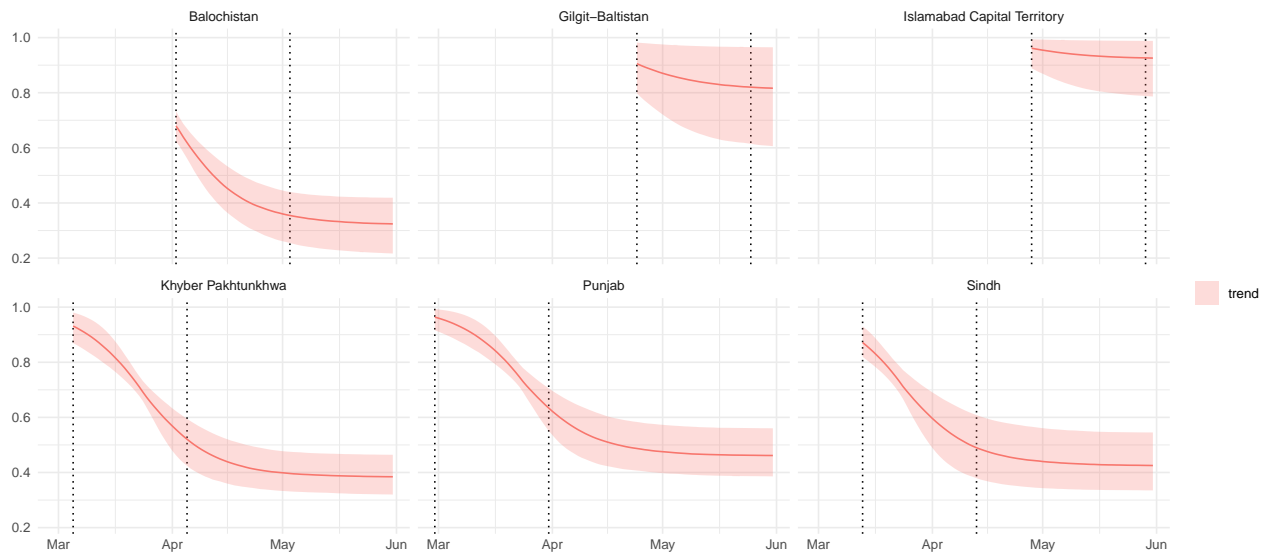
$$cr(t; t^*, \lambda_j, \kappa) = \lambda_j + \frac{1 - \lambda_j}{1 + \exp(\kappa(t - t^*))}$$

where

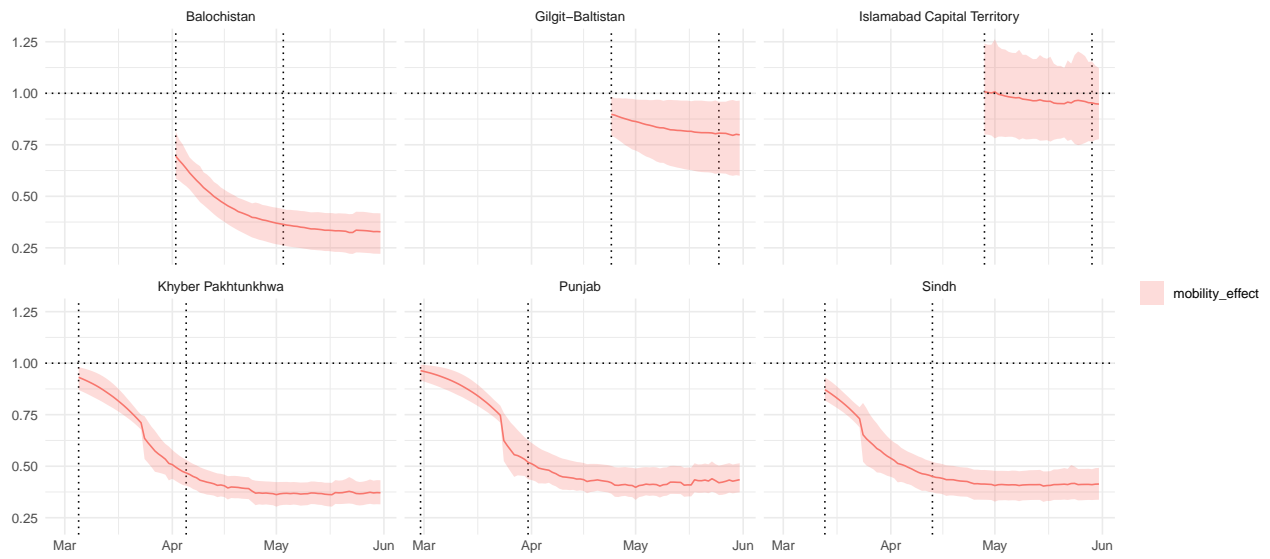
$$\lambda_j \sim \text{Beta}(3, 1)$$

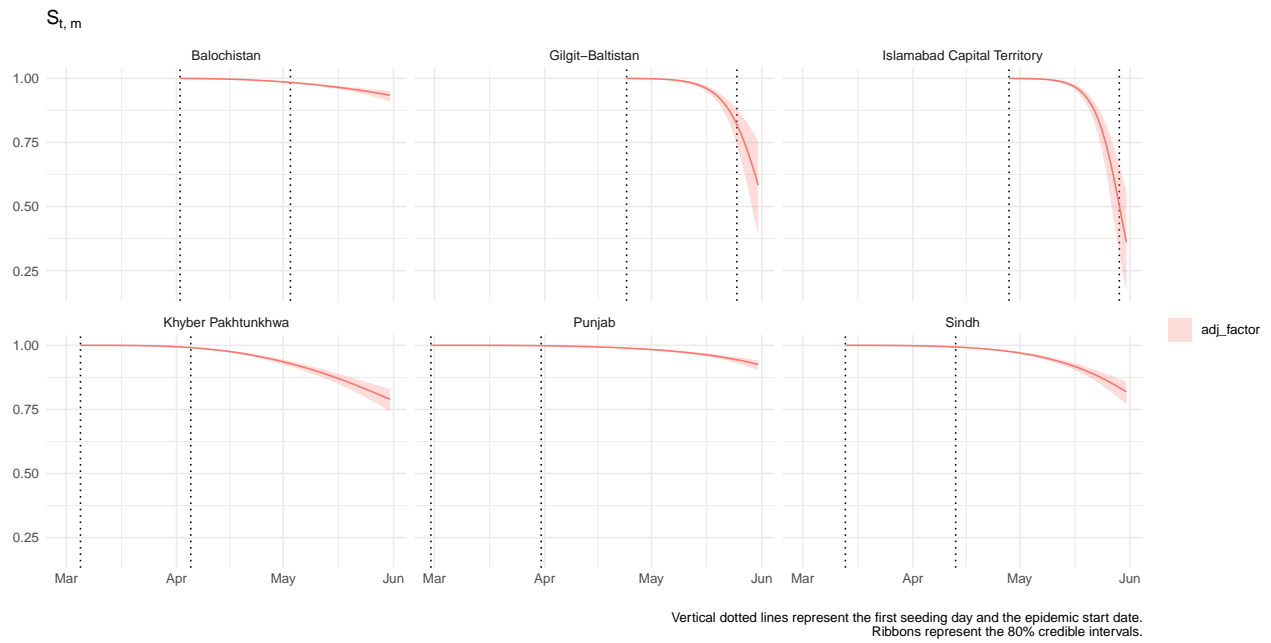
$$\kappa \sim \text{NegHalfNormal}(0, 1).$$

## Contact Rate

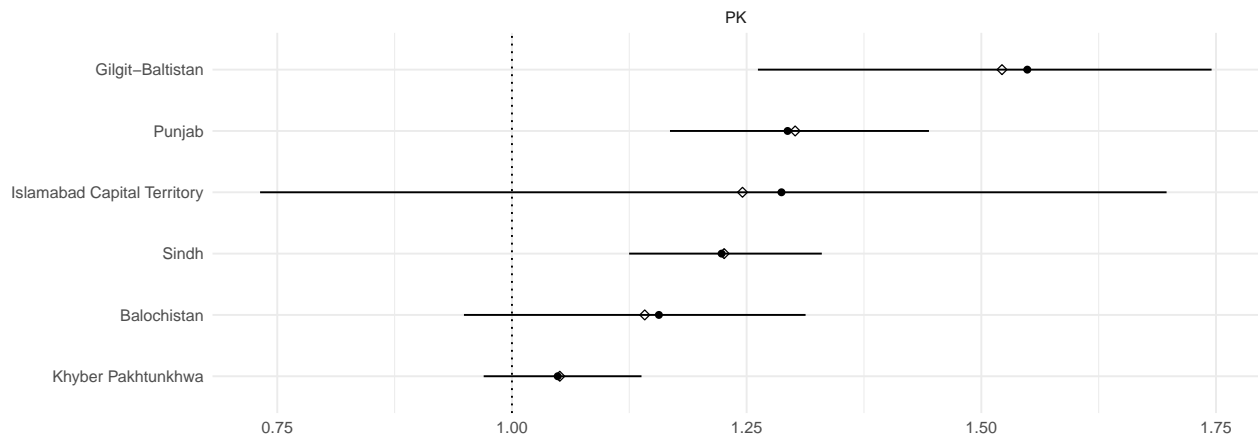


## Mobility effect



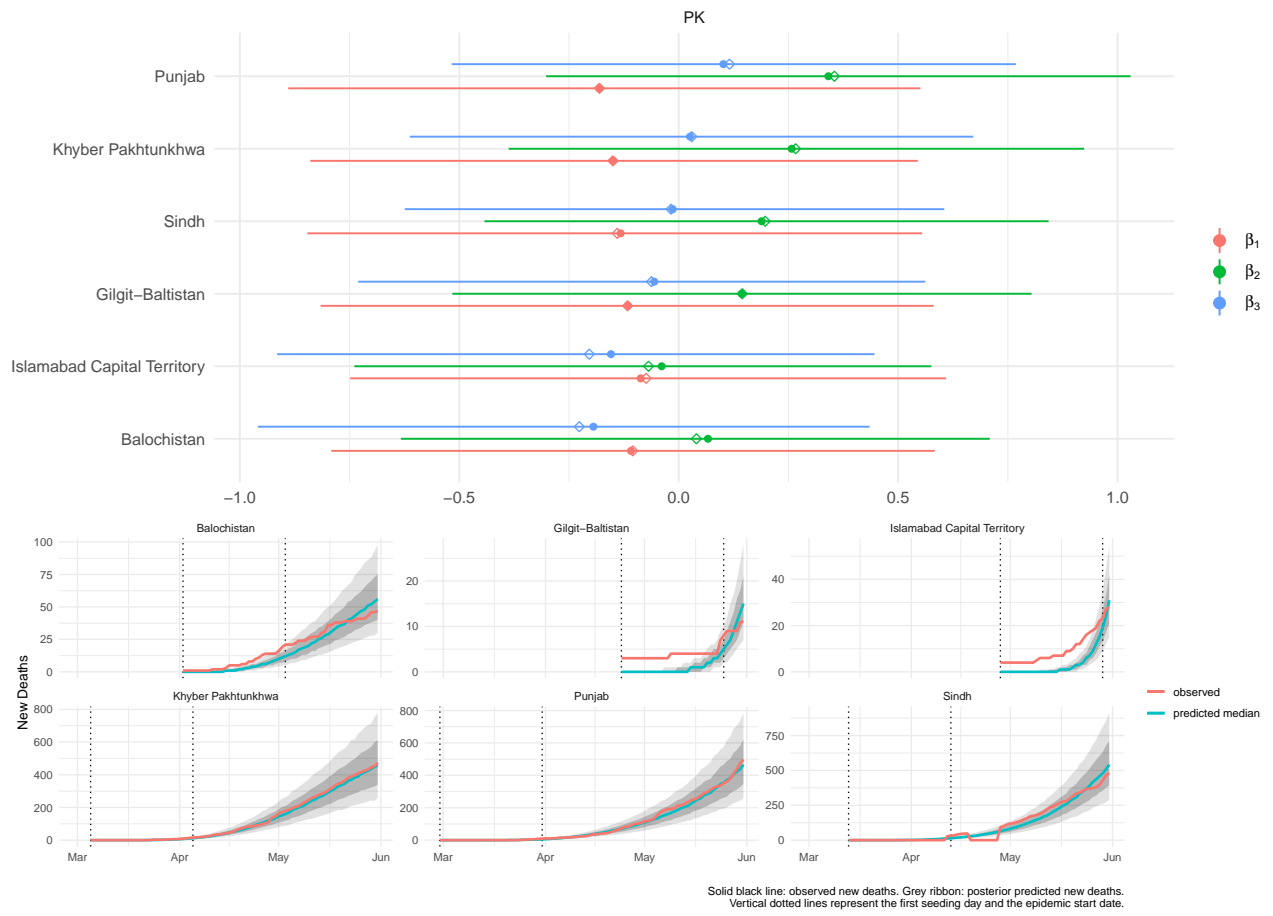


$R_{t,m}$  on the last day



Mobility linear model:  $\beta_1 \cdot X_{\text{residential}} + \beta_2 \cdot X_{\text{transit}} + \beta_3 \cdot X_{\text{average}}$

$\beta$



Imputed Cases

