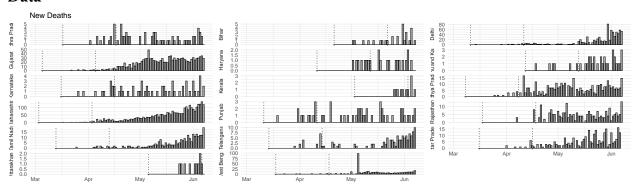
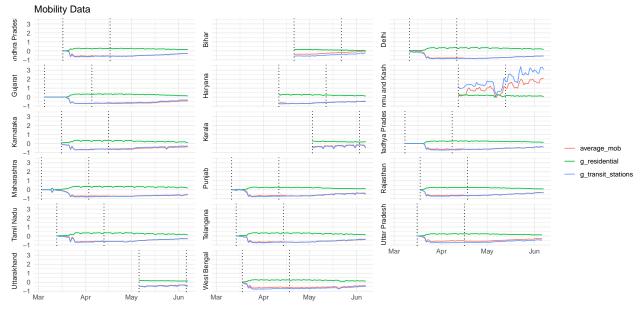
# India

### Data



Vertical dotted lines represent the first seeding day and the epidemic start date



Vertical dotted lines represent the first seeding day and the epidemic start date.

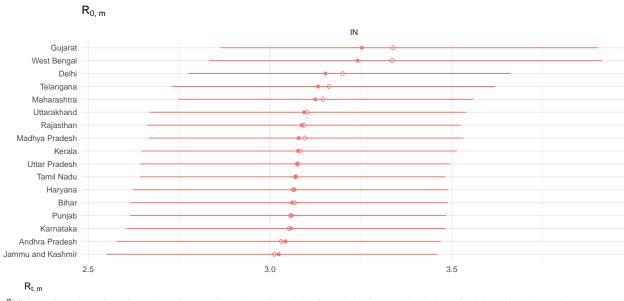
## **Analysis**

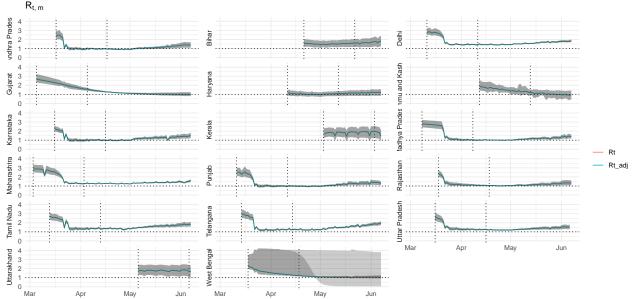
Number of divergent transitions = 0

Maximum  $\hat{R} = 1.533373$ 

Minimum Bulk ESS = 7.137846

Minimum Tail ESS = 4.294294





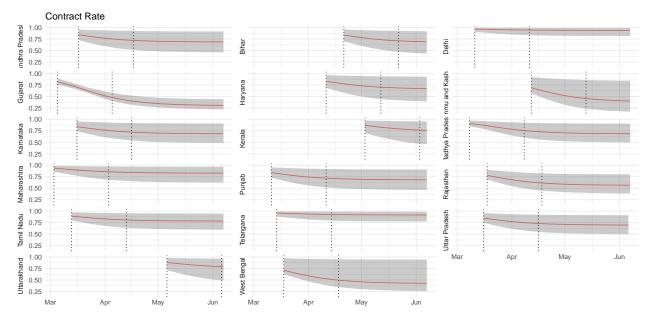
Vertical dotted lines represent the first seeding day and the epidemic start date.

Contact rate function:

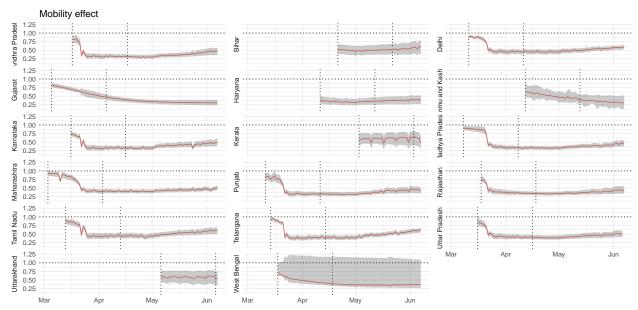
$$cr(t;t^*,\lambda_j,\kappa) = \lambda_j + \frac{1-\lambda_j}{1+\exp(\kappa(t-t^*))}$$

where

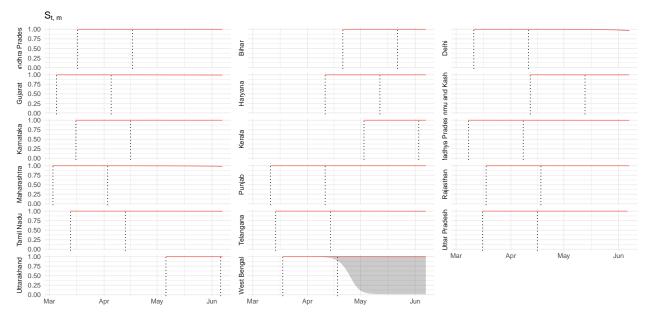
$$\begin{split} &\lambda_{j} \sim \texttt{Beta}(3,1) \\ &\kappa \sim \texttt{NegHalfNormal}(0,1). \end{split}$$



Vertical dotted lines represent the first seeding day and the epidemic start date.

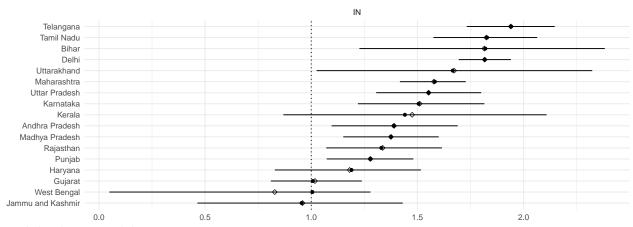


Vertical dotted lines represent the first seeding day and the epidemic start date.

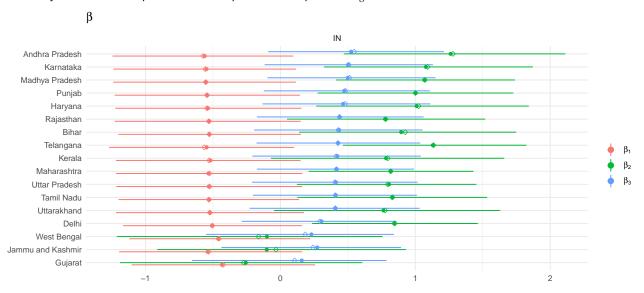


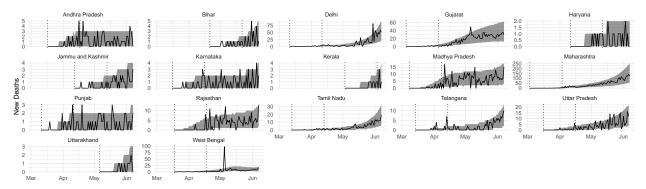
Vertical dotted lines represent the first seeding day and the epidemic start date.

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



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





Solid black line: observed new deaths. Grey ribbon: posterior predicted new deaths.

### Imputed Cases

