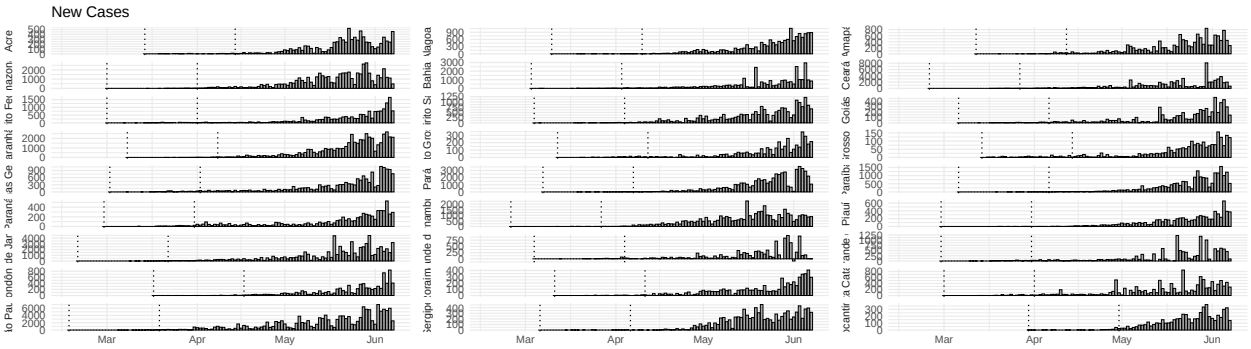
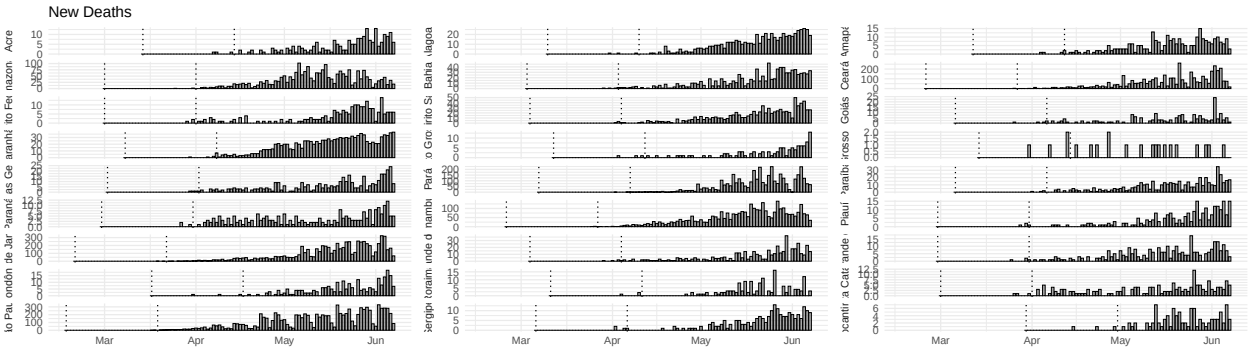
Brazil

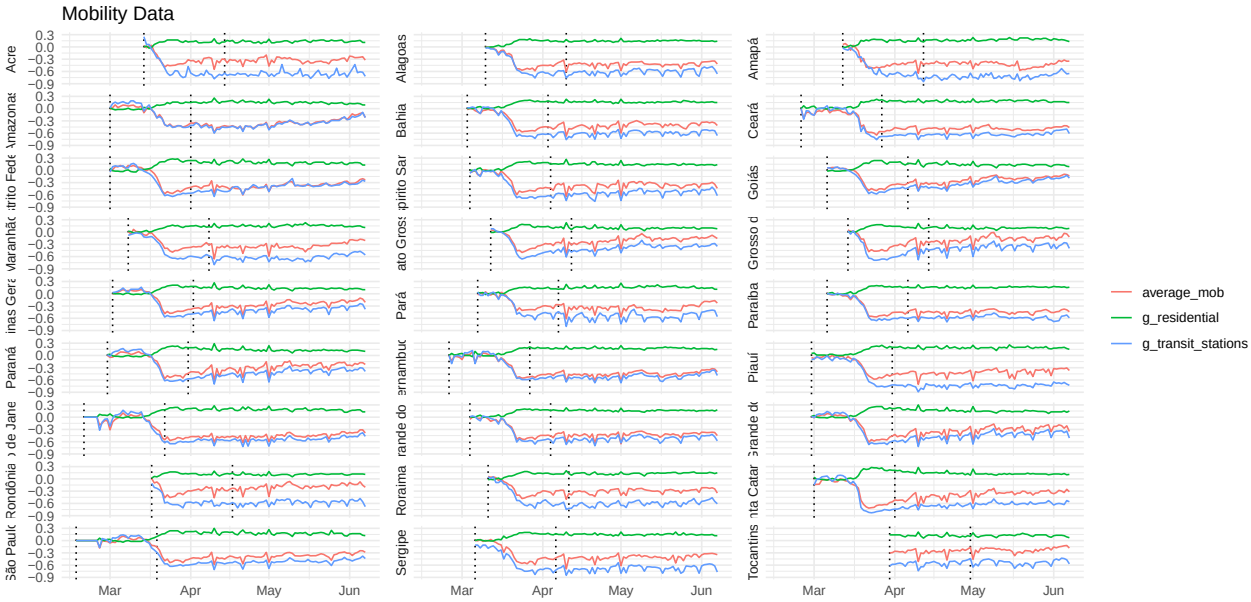
Data



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.



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

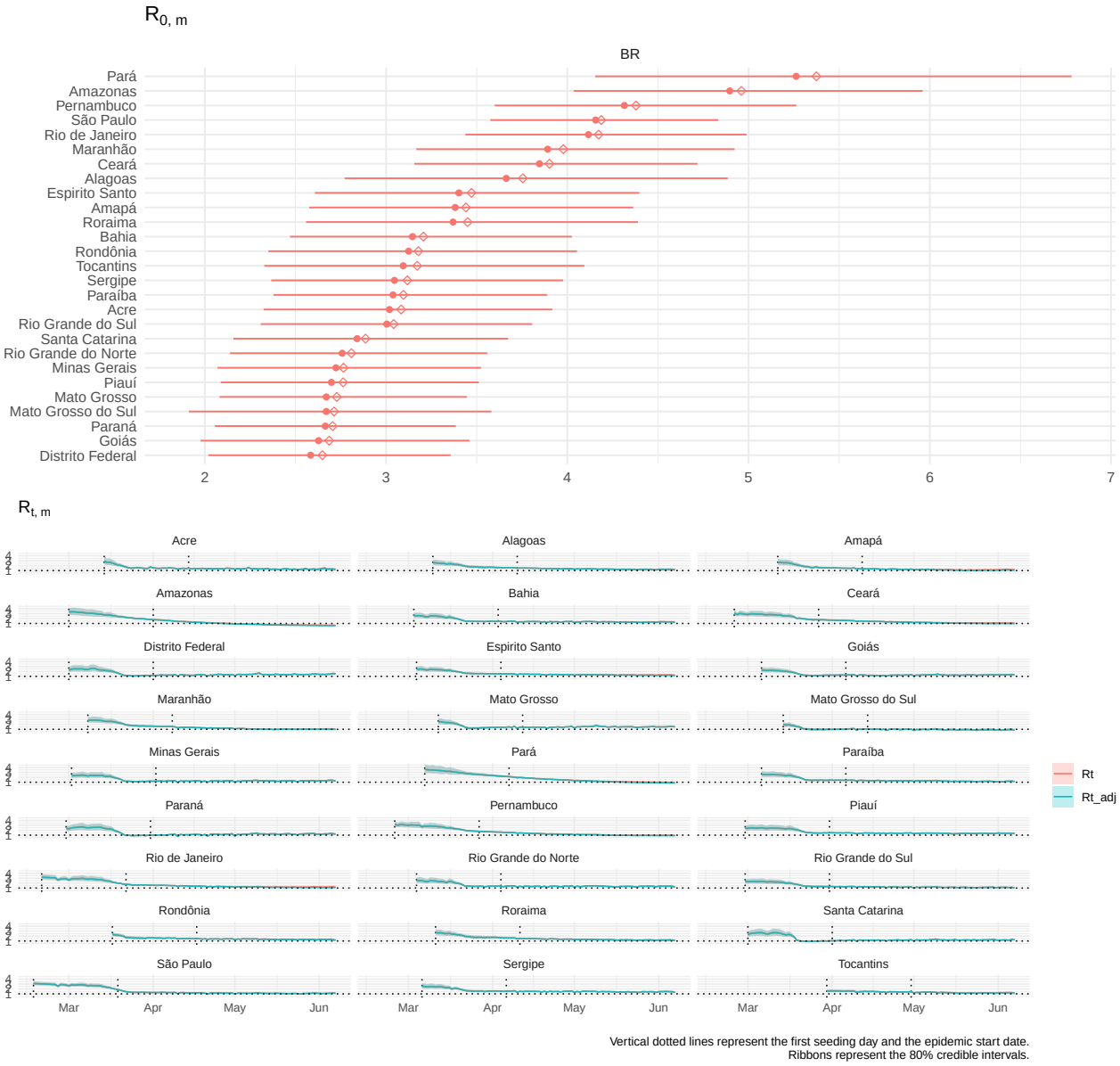
Analysis

Number of divergent transitions = 0

Maximum $\hat{R}$ = 1.007149

Minimum Bulk ESS = 754.8175

Minimum Tail ESS = 942.1888



Vertical dotted lines represent the first seeding day and the epidemic start date.
Ribbons represent the 80% credible intervals.

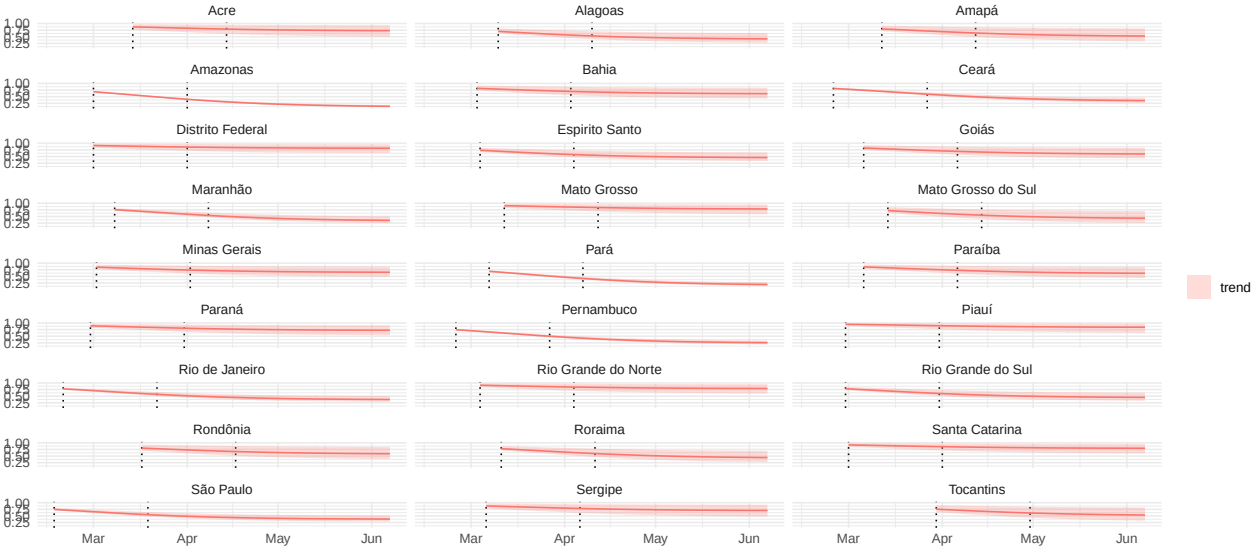
Contact rate function:

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

where

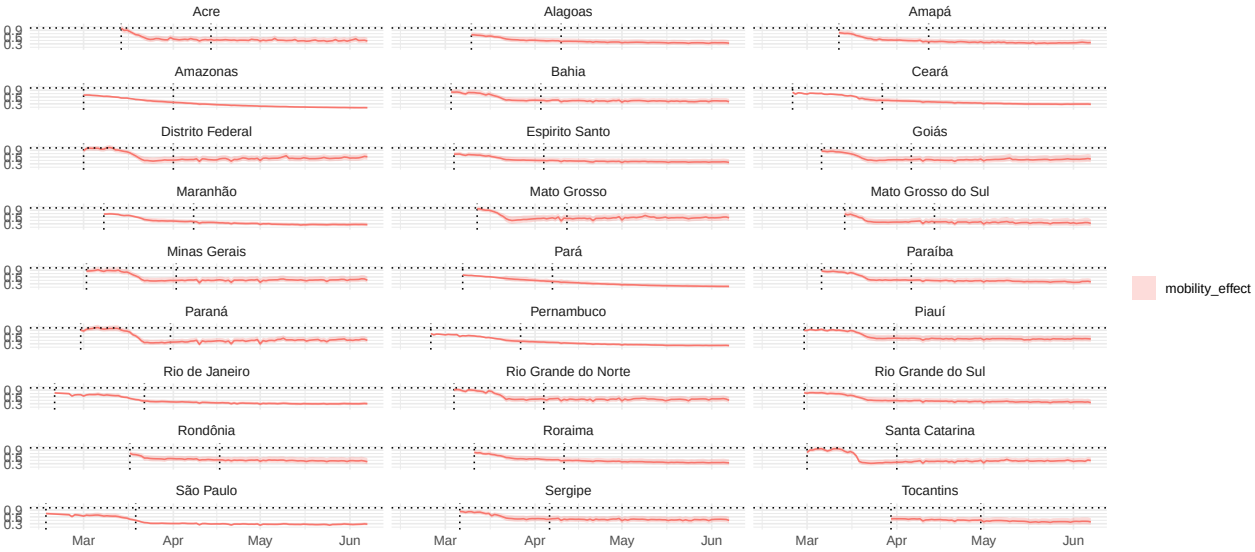
$$\lambda_j \sim \texttt{Beta}(3, 1)$$
$$\kappa \sim \texttt{NegHalfNormal}(0, 1).$$

Contact Rate

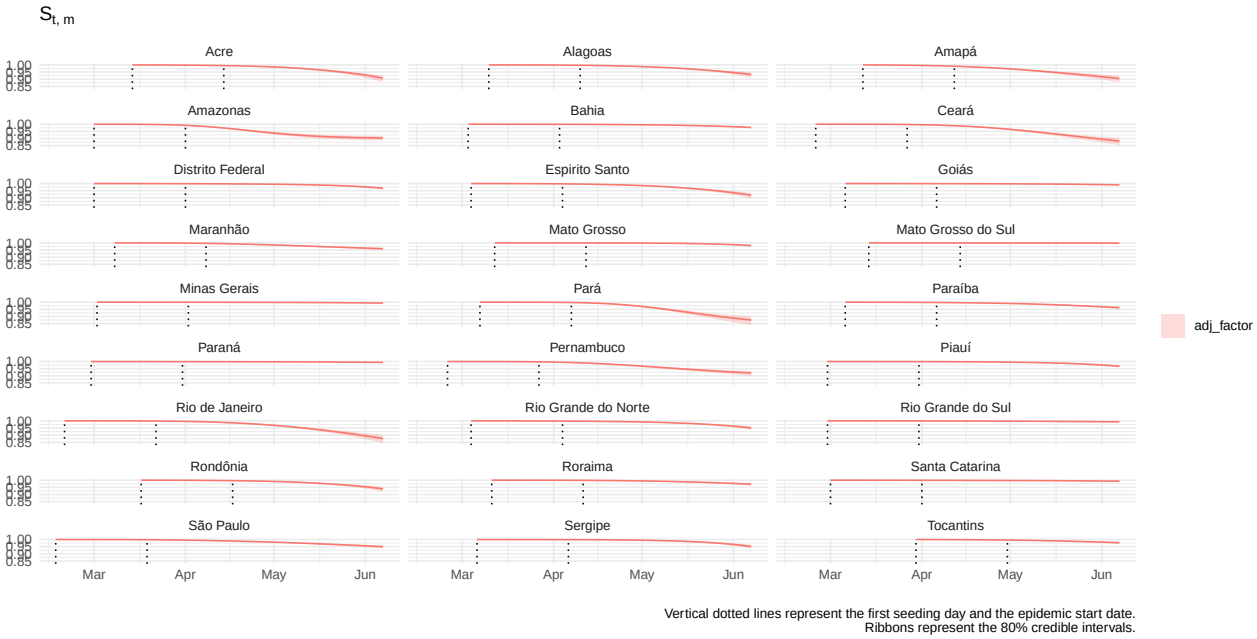


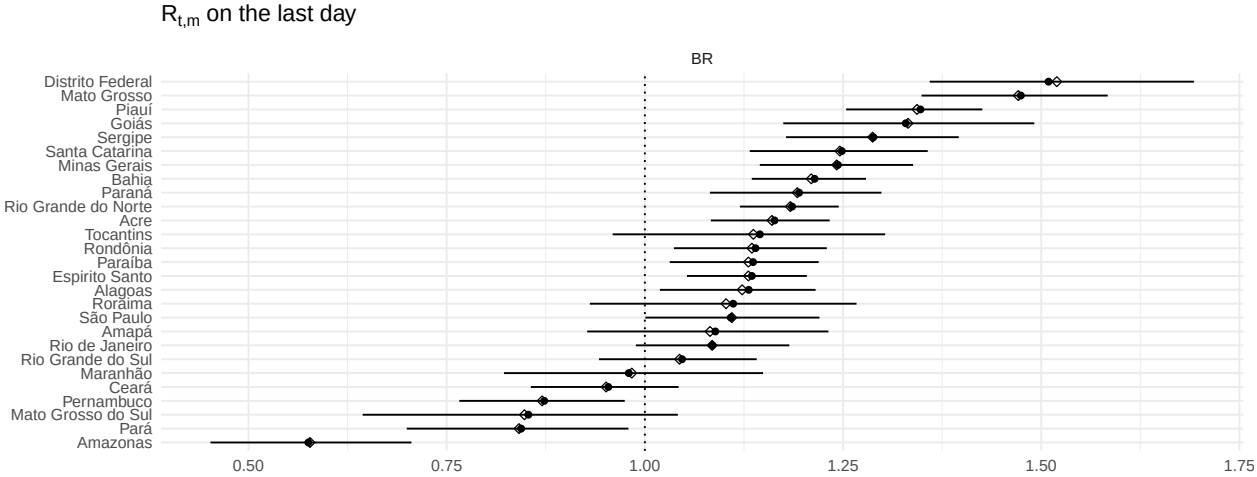
Vertical dotted lines represent the first seeding day and the epidemic start date.
Ribbons represent the 80% credible intervals.

Mobility effect



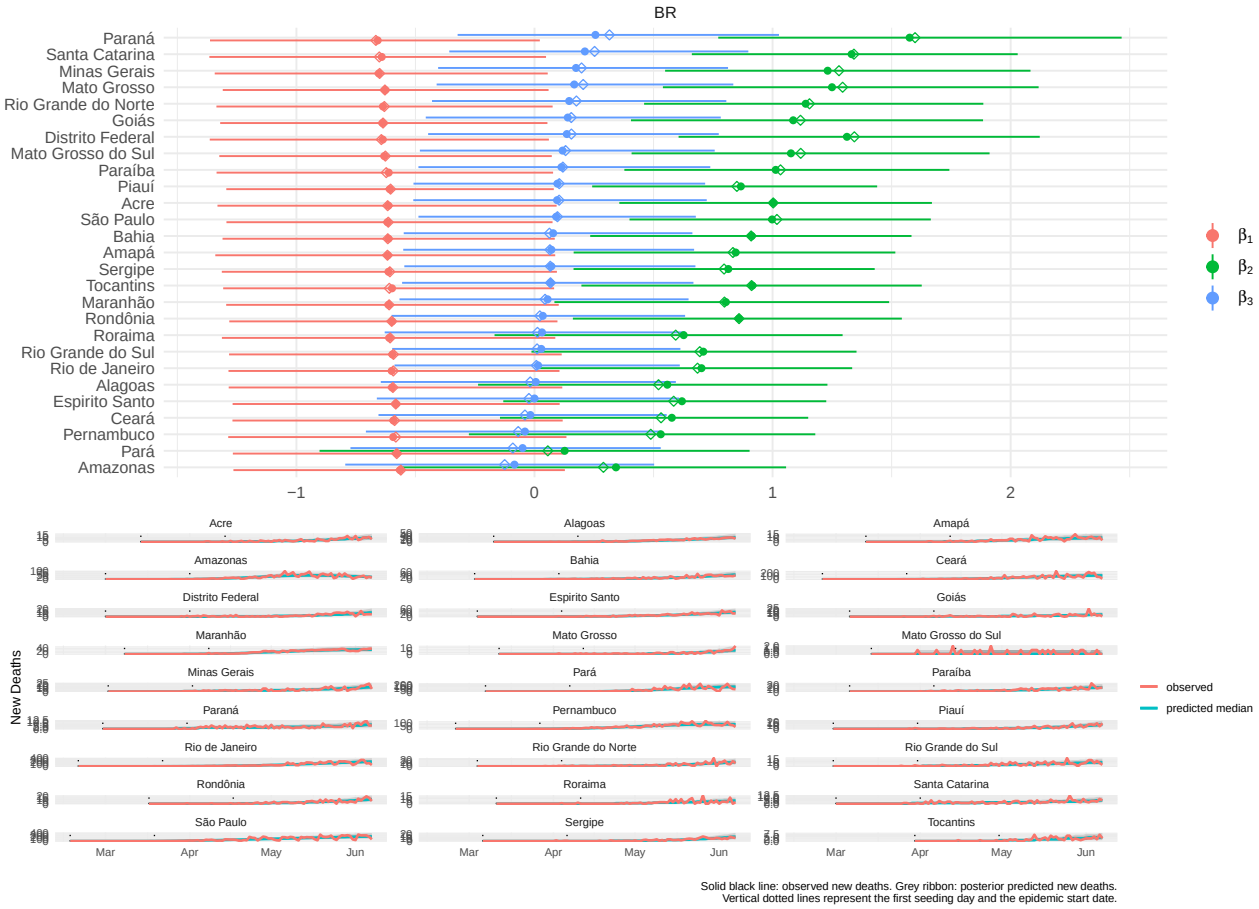
Vertical dotted lines represent the first seeding day and the epidemic start date.
Ribbons represent the 80% credible intervals.





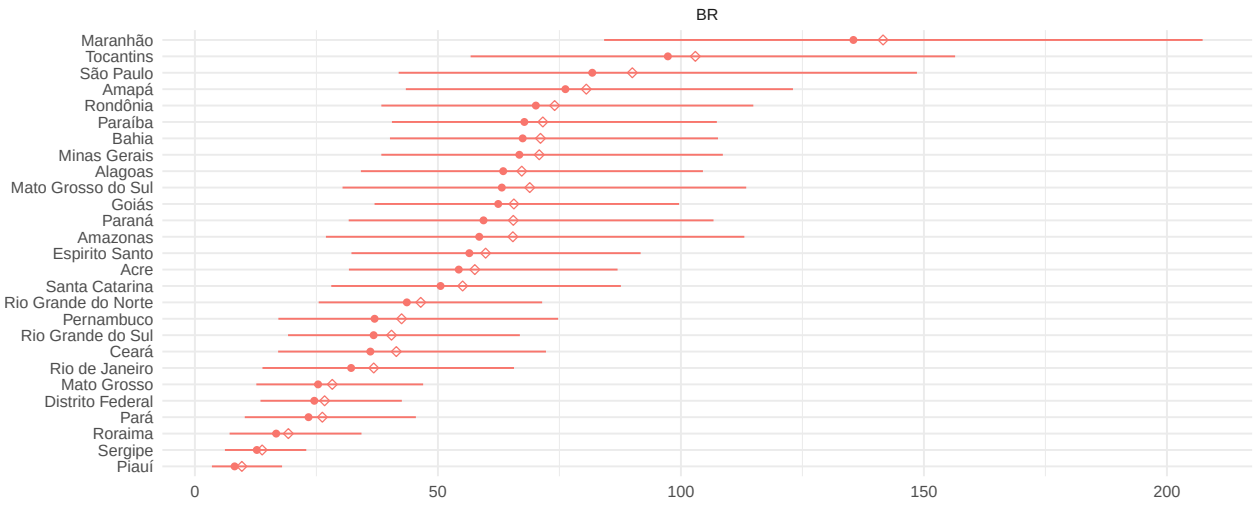
Mobility linear model: $\beta_1 \cdot X_{\text{residential}} + \beta_2 \cdot X_{\text{transit}} + \beta_3 \cdot X_{\text{average}}$.

β

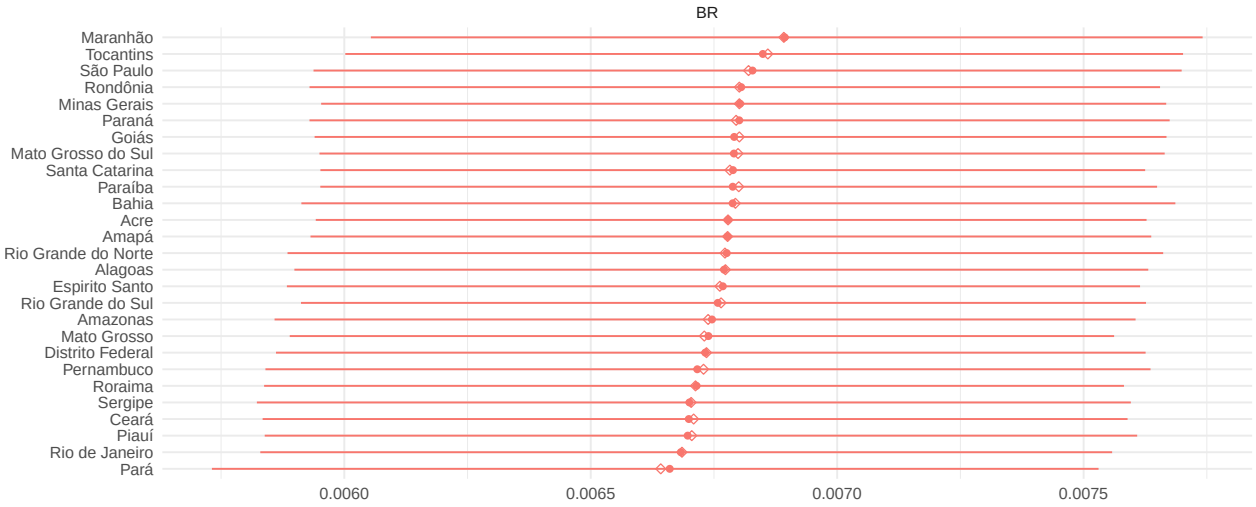


Solid black line: observed new deaths. Grey ribbon: posterior predicted new deaths.
Vertical dotted lines represent the first seeding day and the epidemic start date.

Imputed Cases



IFR


BR
Maranhão
Tocantins
São Paulo
Rondônia
Minas Gerais
Paraná
Goiás
Mato Grosso do Sul
Santa Catarina
Paraíba
Bahia
Acre
Amapá
Rio Grande do Norte
Alagoas
Espirito Santo
Rio Grande do Sul
Amazonas
Mato Grosso
Distrito Federal
Pernambuco
Roraima
Sergipe
Ceará
Piauí
Rio de Janeiro
Pará
0.0060
0.0065
0.0070
0.0075