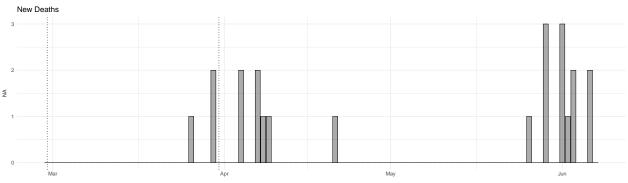
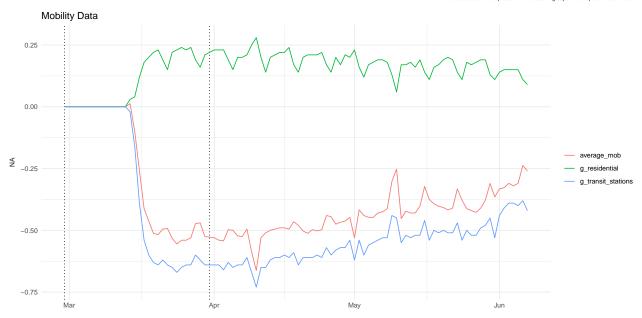
## Venezuela

## 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**

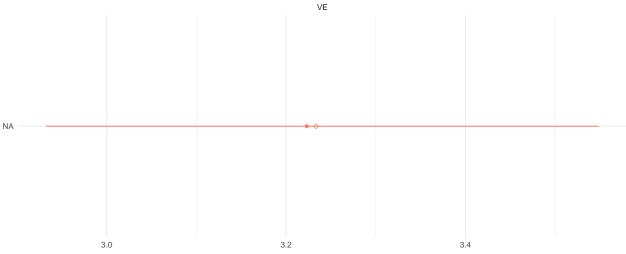
Number of divergent transitions = 0

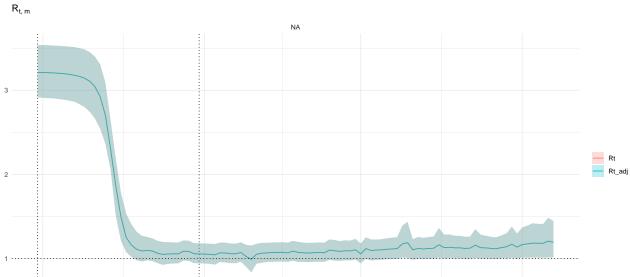
Maximum  $\hat{R} = 1.005082$ 

Minimum Bulk ESS = 1413.192

Minimum Tail ESS = 1188.331







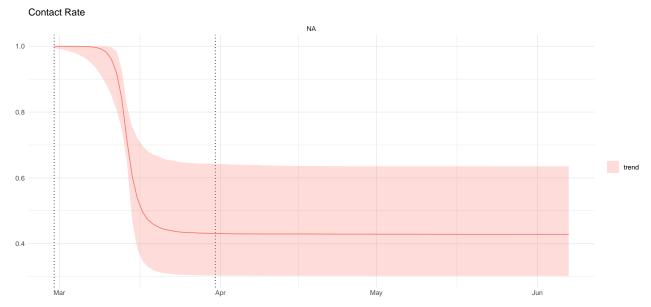
Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

Contact rate function:

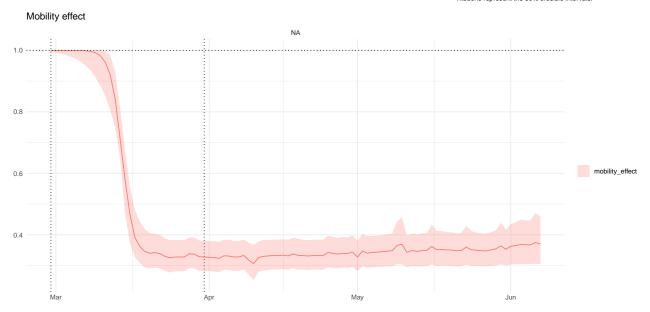
$$cr(t; t^*, \lambda_j, \kappa) = \lambda_j + \frac{1 - \lambda_j}{1 + \exp(\kappa(t - t^*))}$$

where

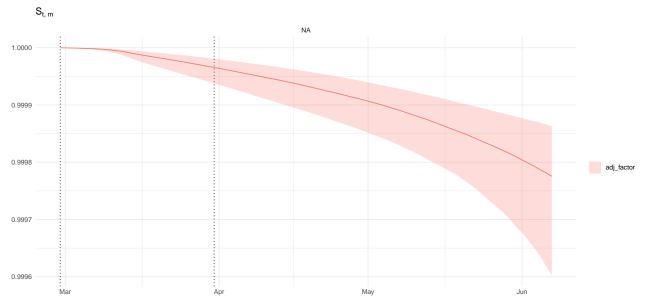
$$\lambda_j \sim \text{Beta}(3,1)$$
 $\kappa \sim \text{NegHalfNormal}(0,1).$ 



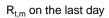
Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

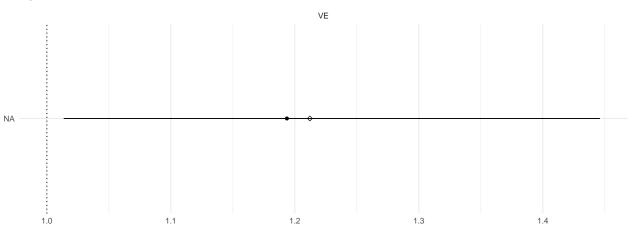


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.



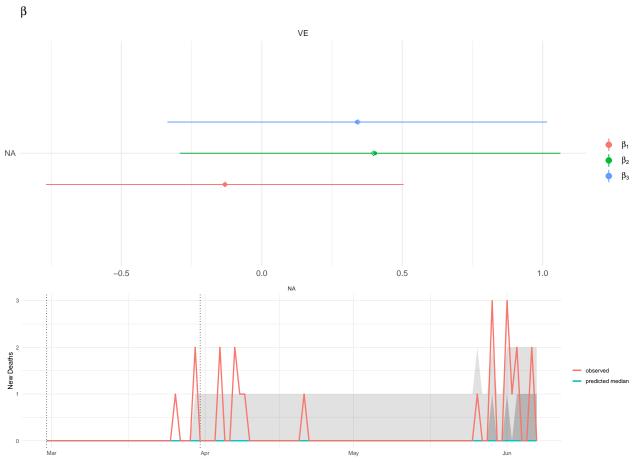
Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.





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





## Imputed Cases

