Costa Rica

Data New Cases Š New Deaths Vertical dotted lines represent the first seeding day and the epidemic start date Mobility Data 0.0 average_mob ¥ g_residential g_transit_stations -0.5

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

Analysis

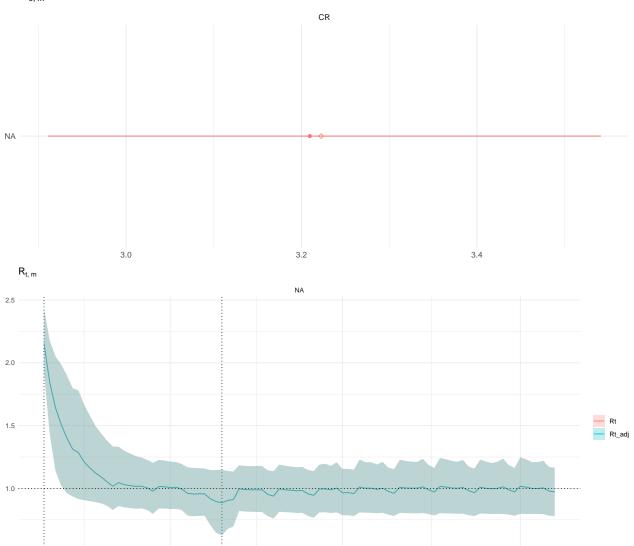
Number of divergent transitions = 0

Maximum $\hat{R} = 1.004598$

Minimum Bulk ESS = 1339.658

Minimum Tail ESS = 782.3516

 $R_{0, m}$



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

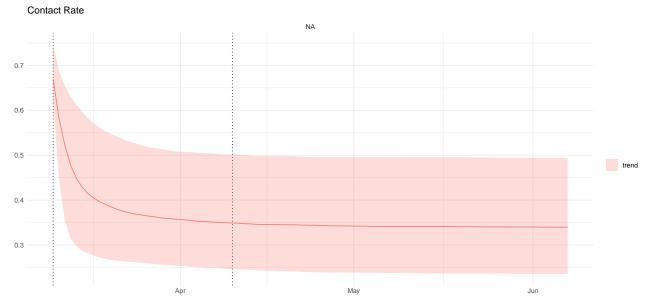
Ribbons represent the 80% credible intervals.

Contact rate function:

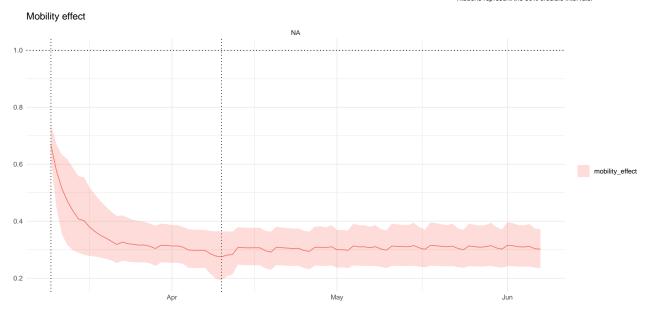
$$cr(t; t^*, \lambda_j, \kappa) = \lambda_j + \frac{1 - \lambda_j}{1 + \exp(\kappa(t - t^*))}$$

where

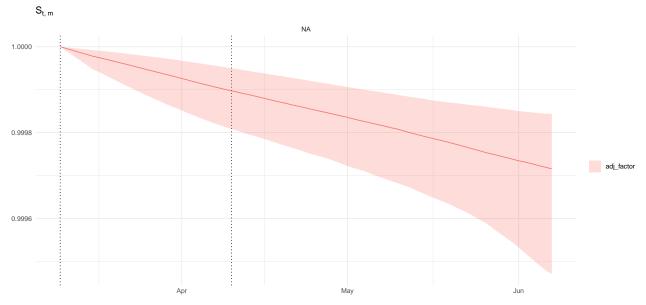
$$\lambda_j \sim \text{Beta}(3,1)$$
 $\kappa \sim \text{NegHalfNormal}(0,1).$



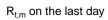
Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

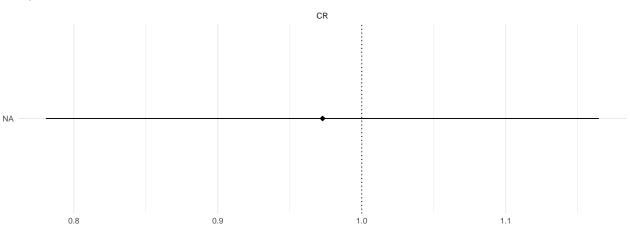


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

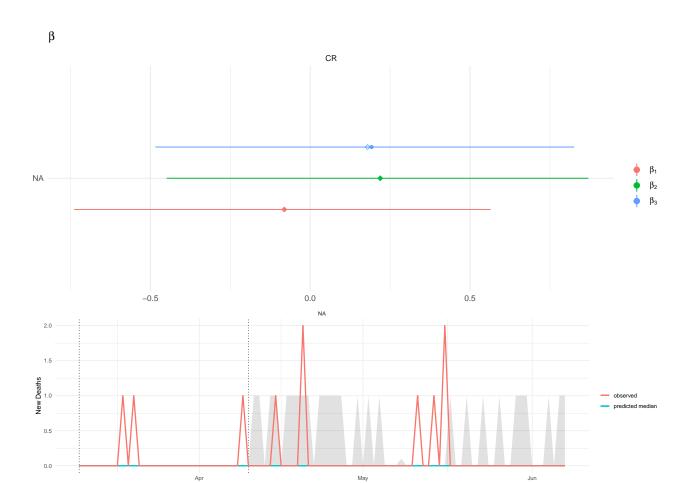


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.





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



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.

