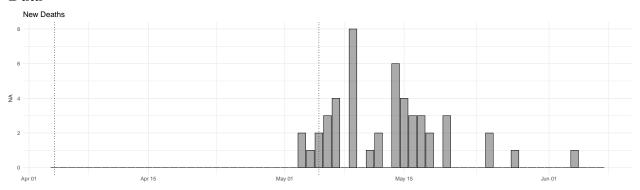
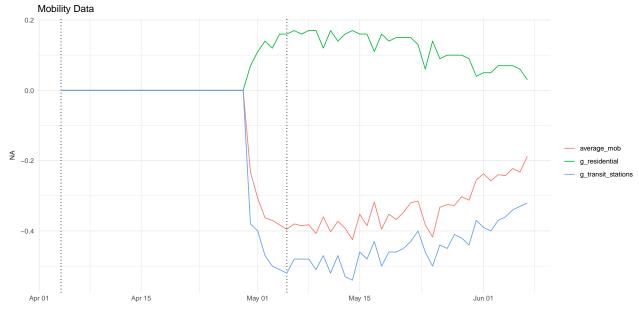
# Tajikistan

#### 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**

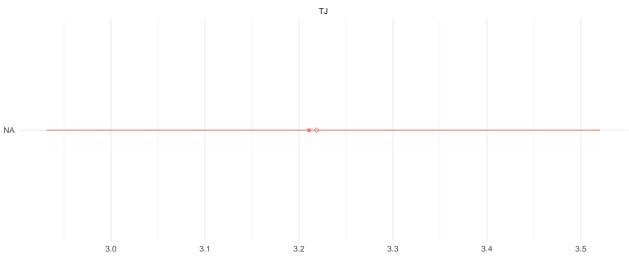
Number of divergent transitions = 0

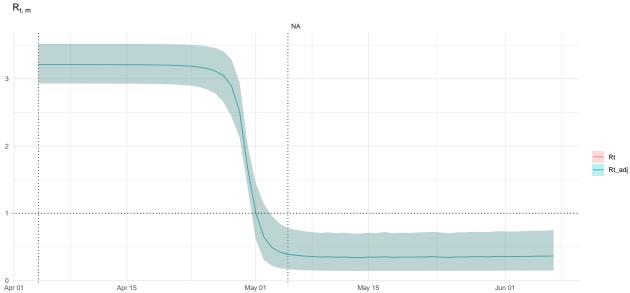
Maximum  $\hat{R} = 1.002635$ 

Minimum Bulk ESS = 1397.651

Minimum Tail ESS = 1213.403







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

Jun 01

Contact rate function:

Apr 15

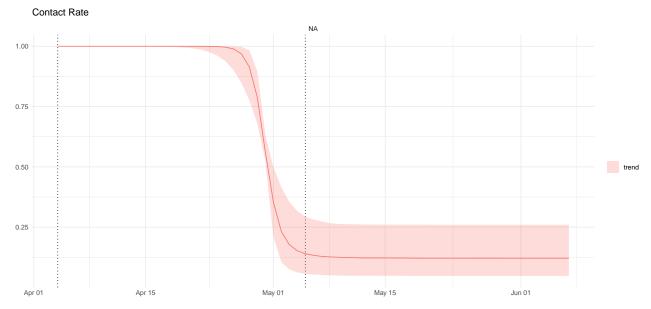
$$cr(t;t^*,\lambda_j,\kappa) = \lambda_j + \frac{1-\lambda_j}{1+\exp(\kappa(t-t^*))}$$

May 15

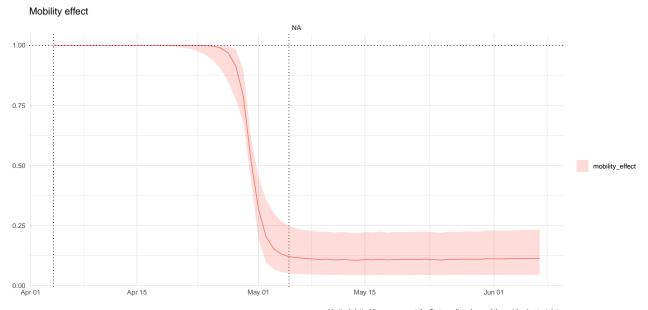
May 01

where

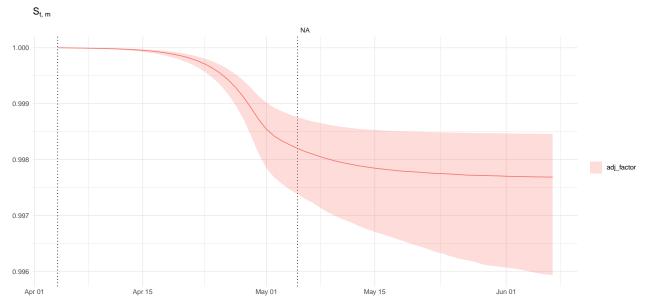
$$\lambda_j \sim \text{Beta}(3,1)$$
  $\kappa \sim \text{NegHalfNormal}(0,1).$ 



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

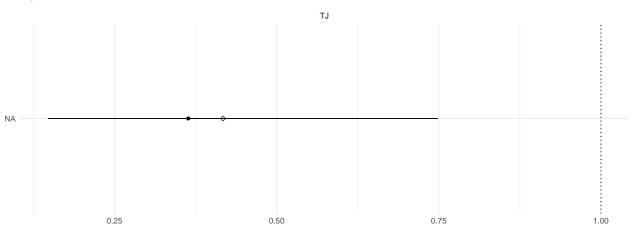


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.



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

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



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



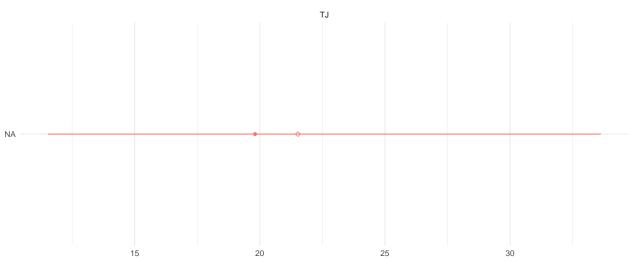
Solid black line: observed new deaths. Grey ribbon: posterior predicted new deaths. Vertical dotted lines represent the first seeding day and the epidemic start date.

Jun 01

### Imputed Cases

Apr 01

Apr 15



May 15

May 01

