Libya

Data

New Cases

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

New Deaths

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

Mobility Data

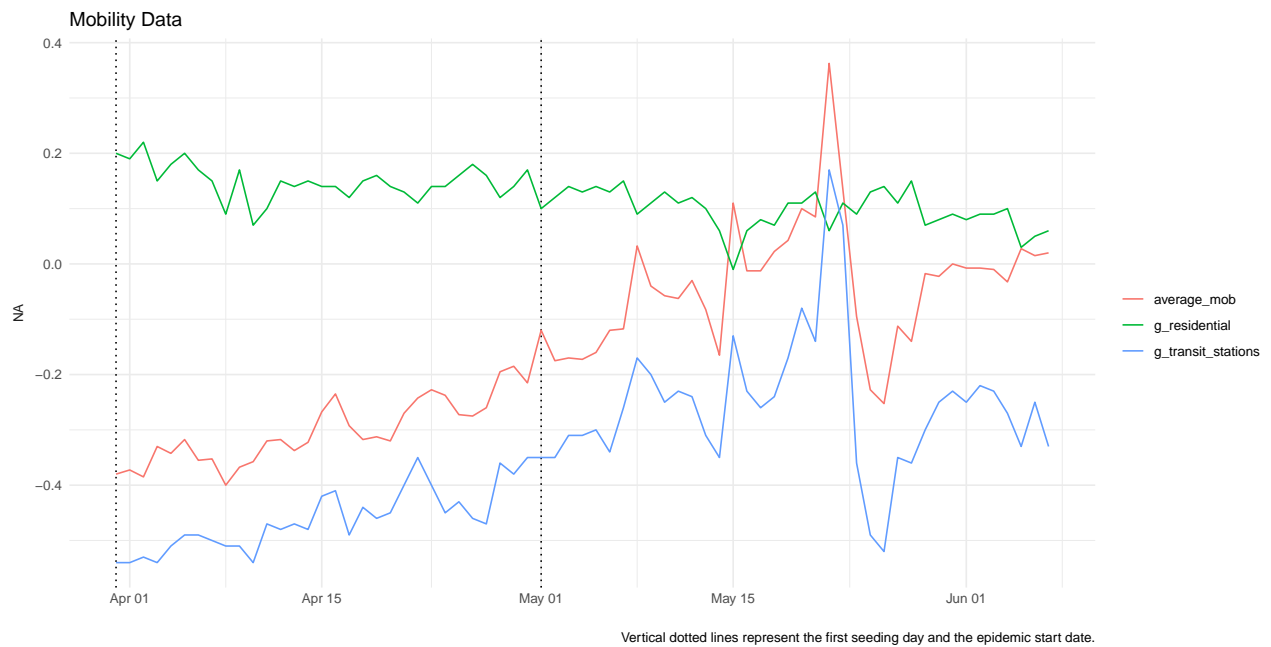Vertical dotted lines represent the first seeding day and the epidemic start date.
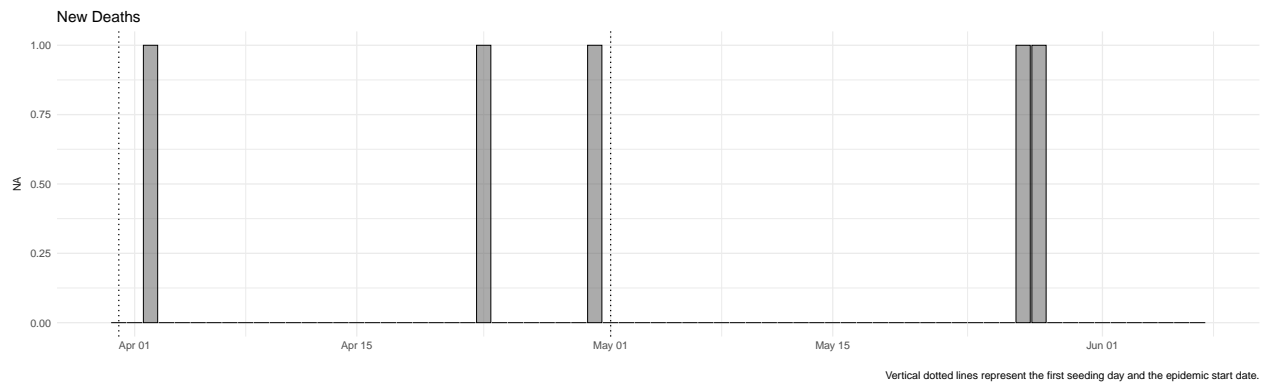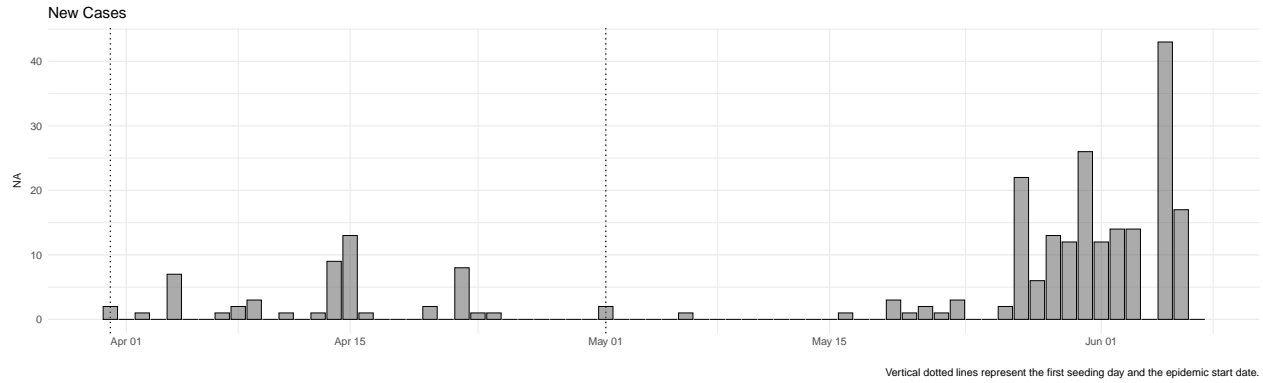
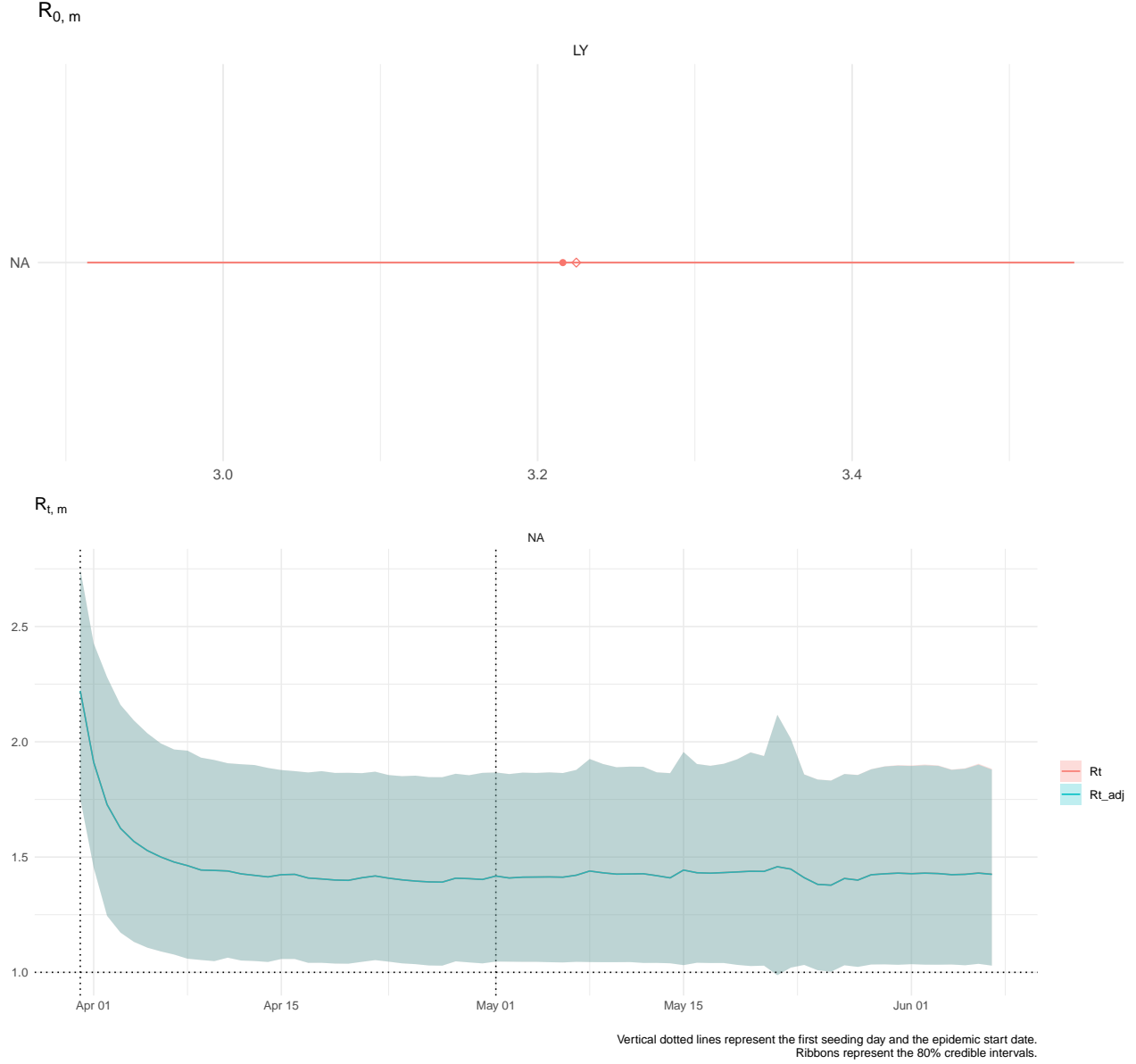# Analysis

Number of divergent transitions = 0

Maximum $\hat{R}$ = 1.002762

Minimum Bulk ESS = 1207.871

Minimum Tail ESS = 1337.487

$R_{0,m}$

$R_{t,m}$

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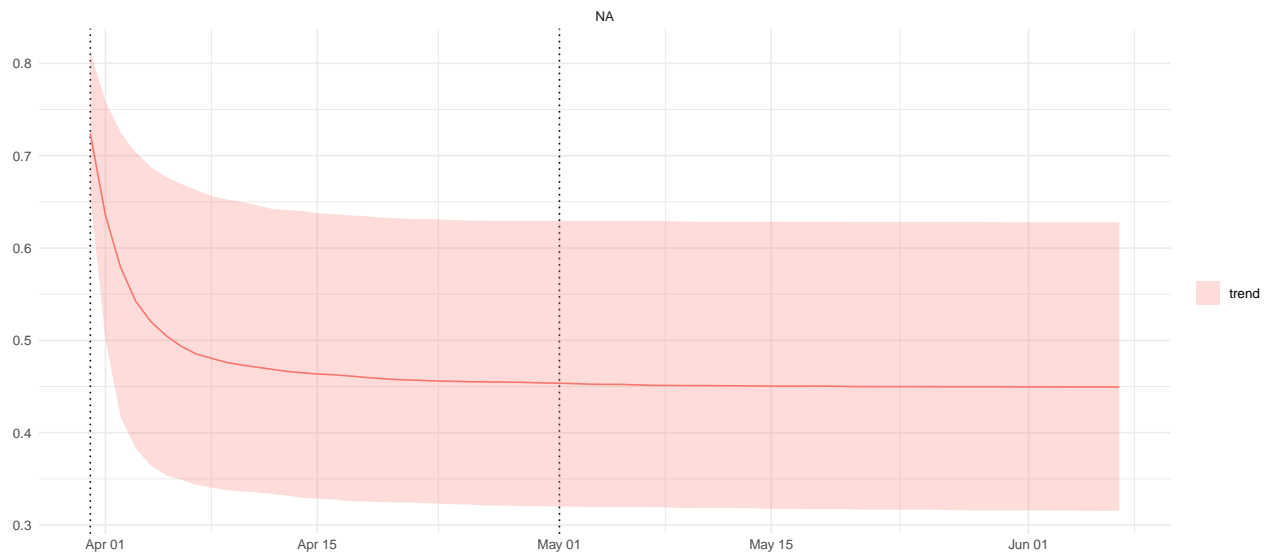
Contact rate function:

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

where

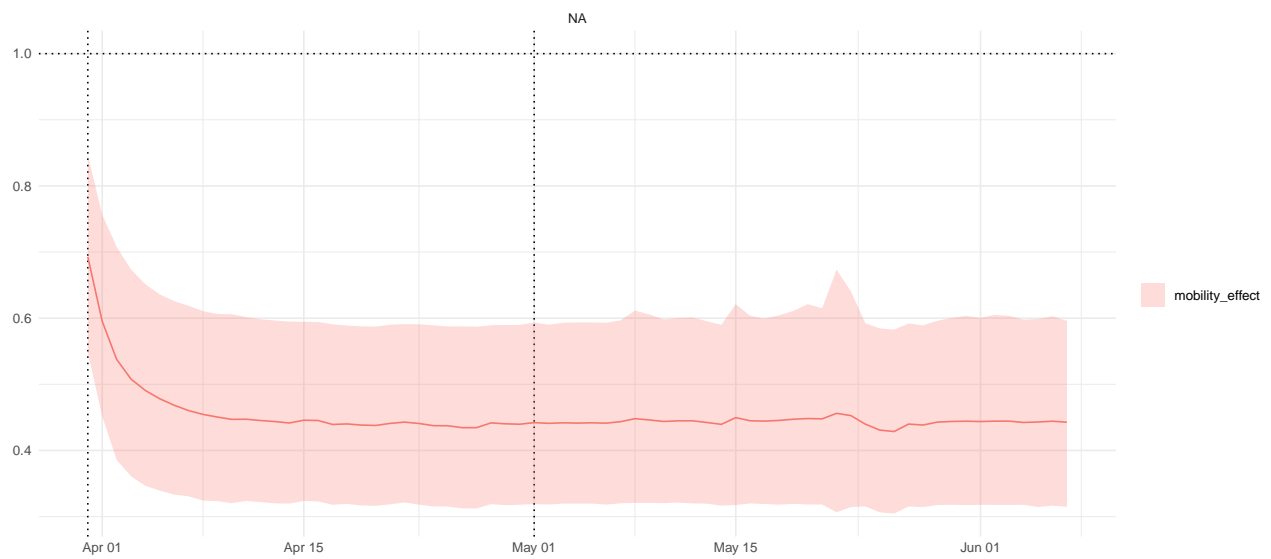$$\lambda_j \sim \texttt{Beta}(3, 1)$$
$$\kappa \sim \texttt{NegHalfNormal}(0, 1).$$
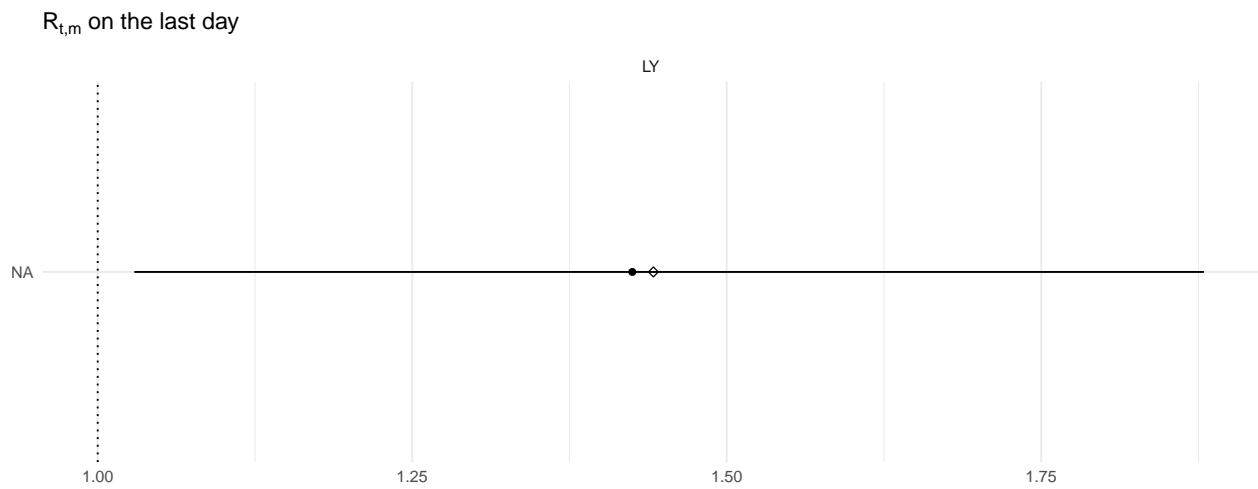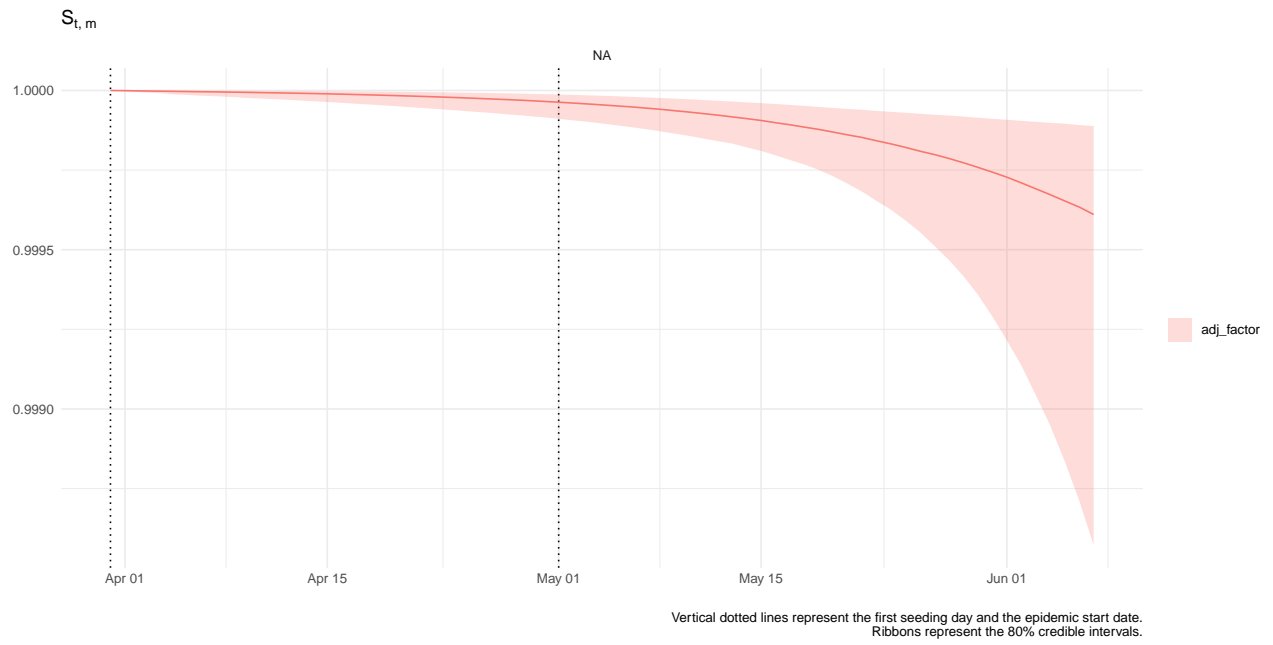
Contact Rate

NA

trend

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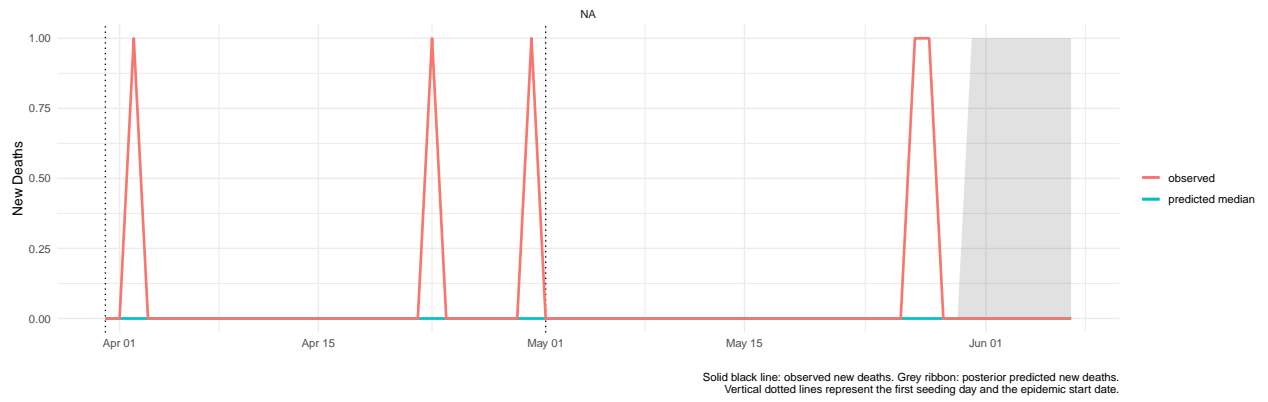Ribbons represent the 80% credible intervals.
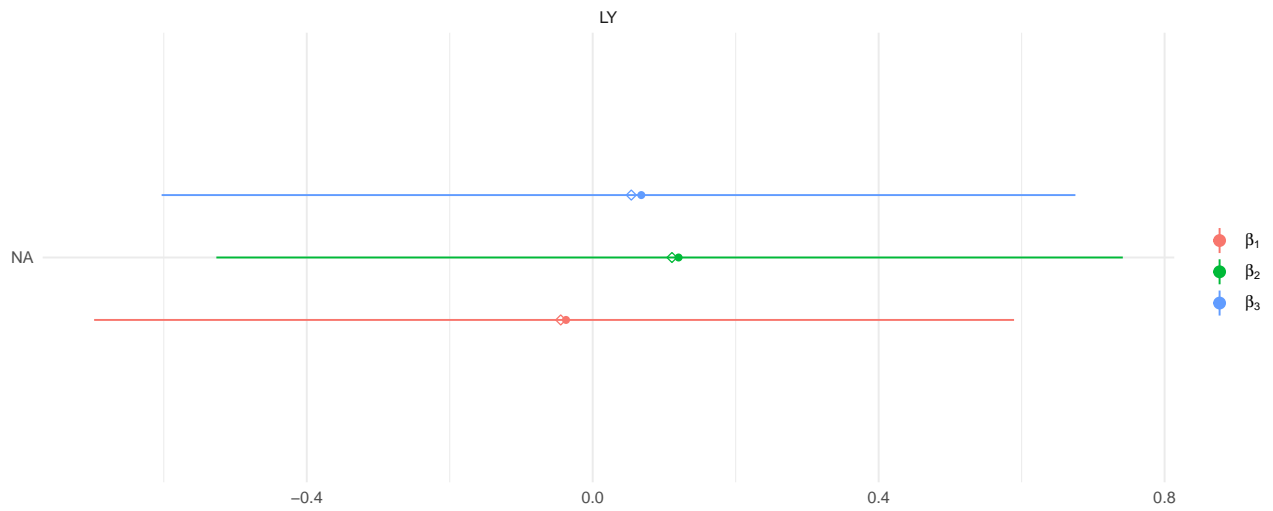
Mobility effect

NA

mobility_effect

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

3

$S_{t,m}$

NA

1.0000

0.9995

adj_factor

0.9990

Apr 01   Apr 15   May 01   May 15   Jun 01

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

LY

NA

1.00   1.25   1.50   1.75

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

β

LY

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

LY

IFR

LY

NA

0.0033   0.0036   0.0039