Oman

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

- average_mob
- g_residential
- g_transit_stations

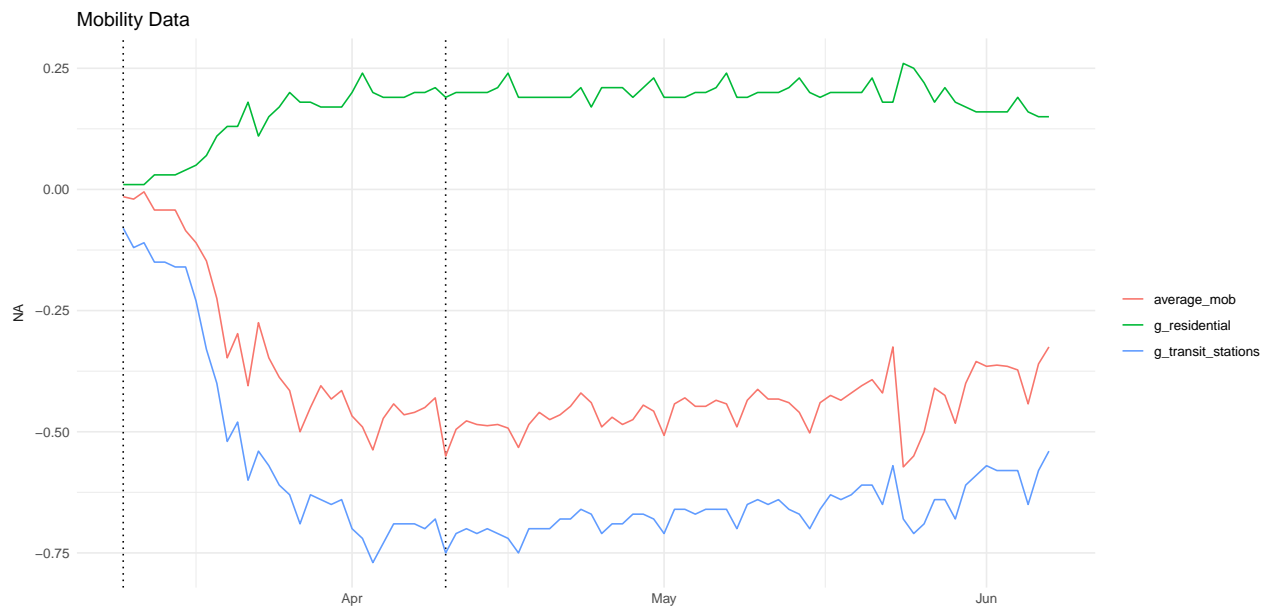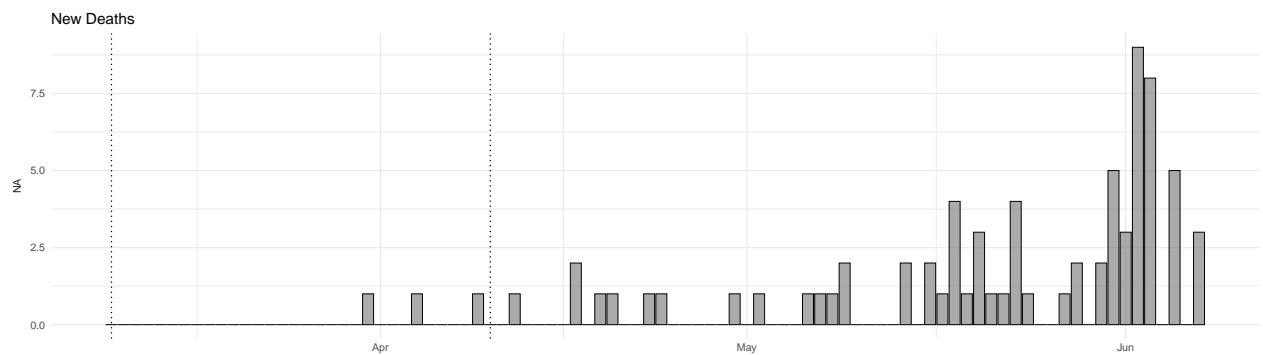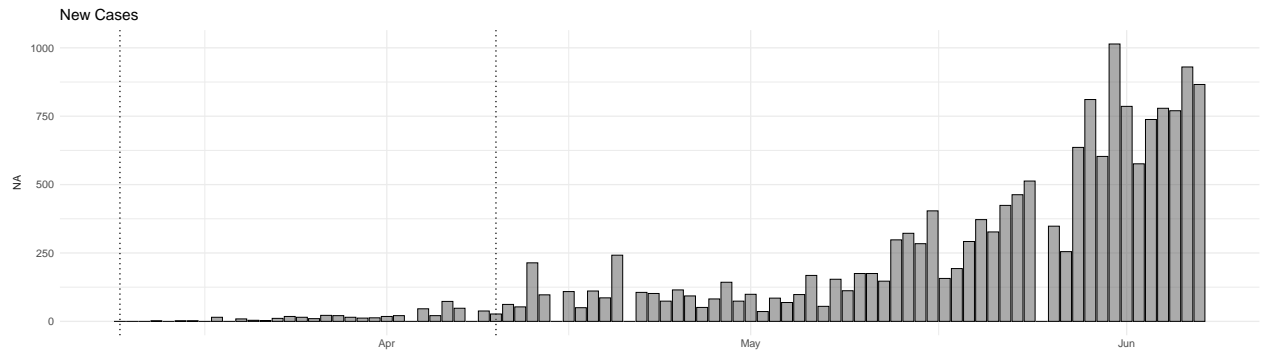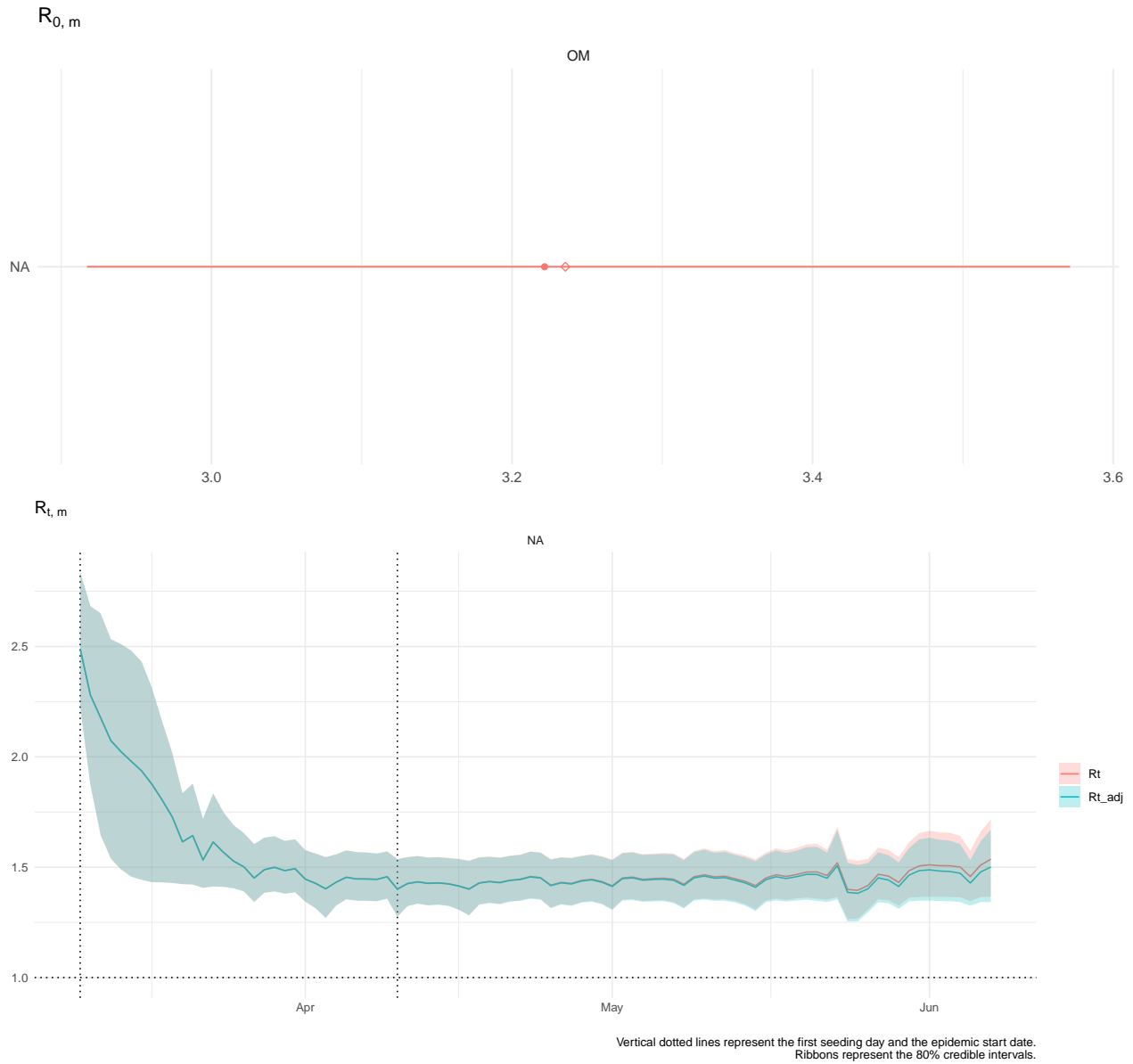Vertical dotted lines represent the first seeding day and the epidemic start date.

Analysis

Number of divergent transitions = 0

Maximum $\hat{R}$ = 1.003101

Minimum Bulk ESS = 1532.2

Minimum Tail ESS = 1186.026

$R_{0, m}$

$R_{t, m}$

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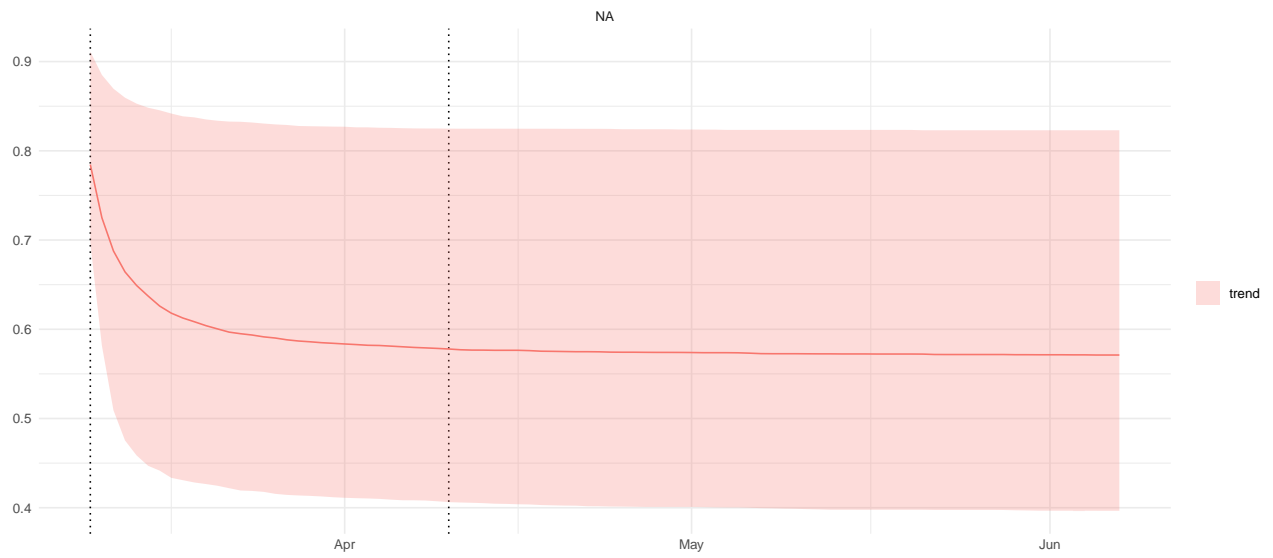
Contact rate function:

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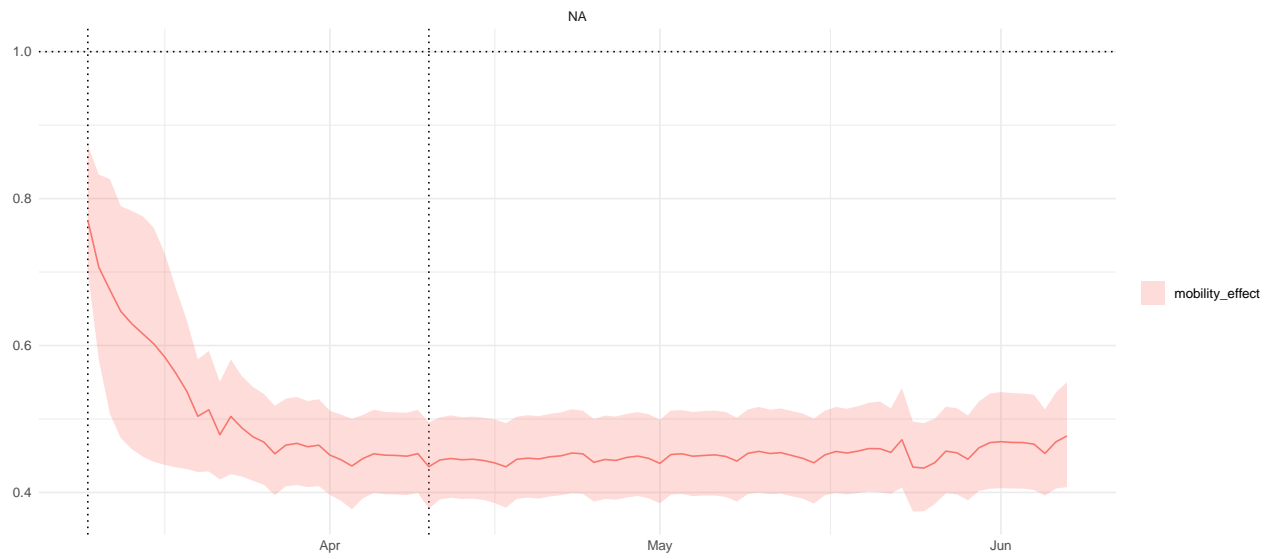
where

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

Contact Rate

NA

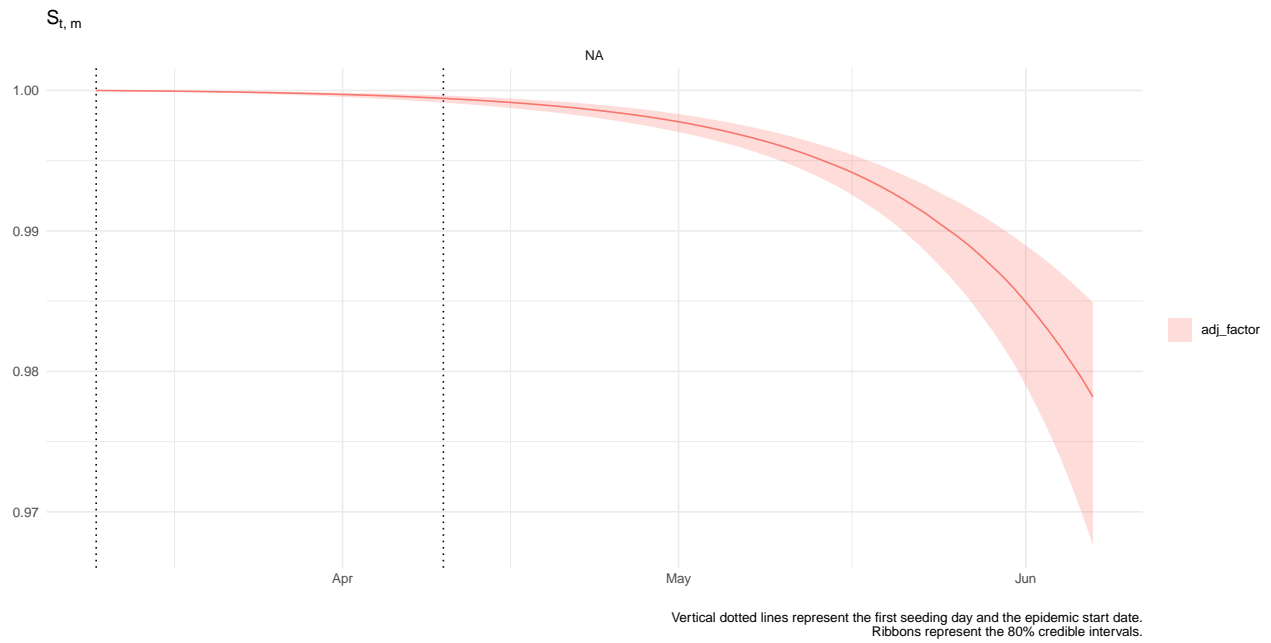

Vertical dotted lines represent the first seeding day and the epidemic start date.
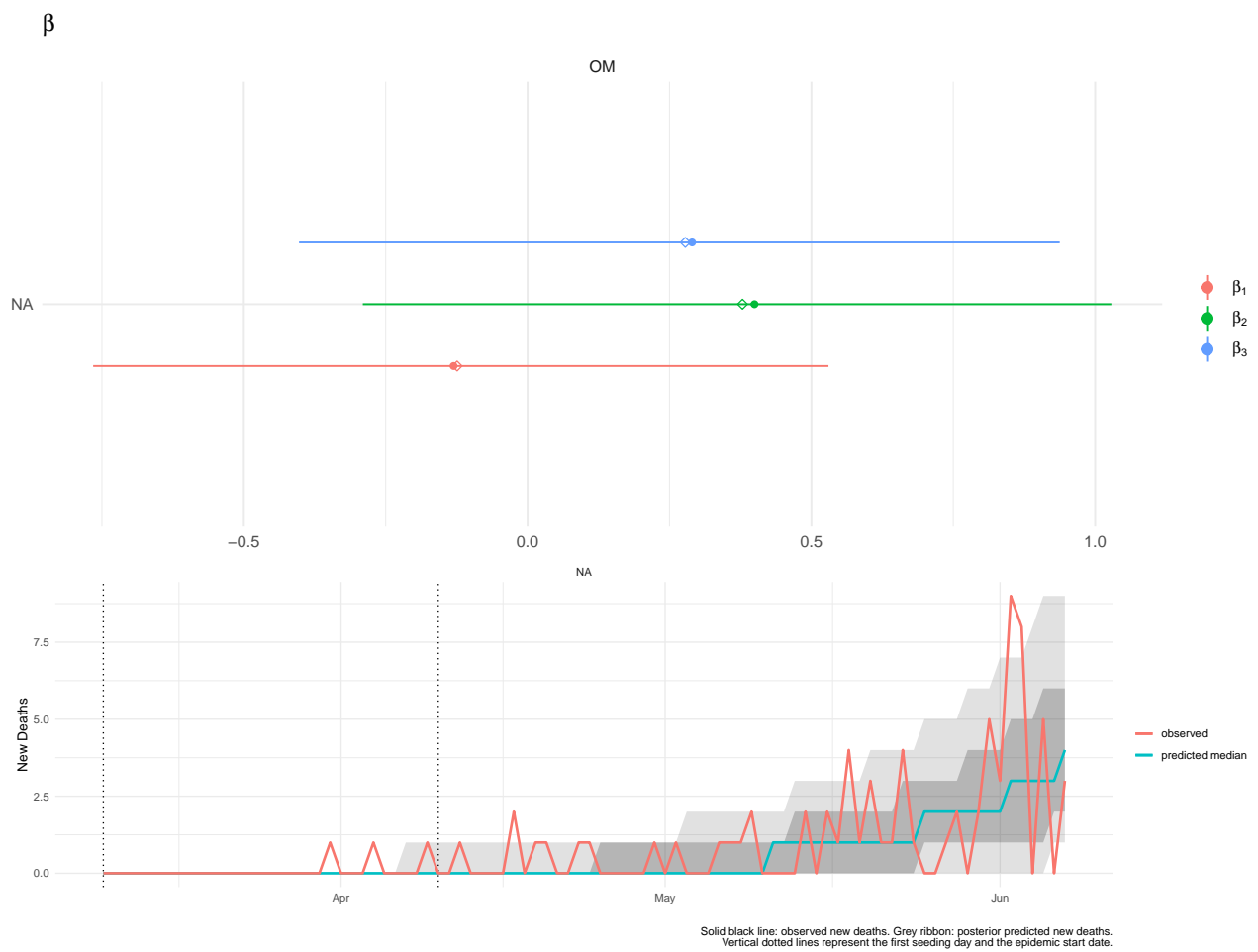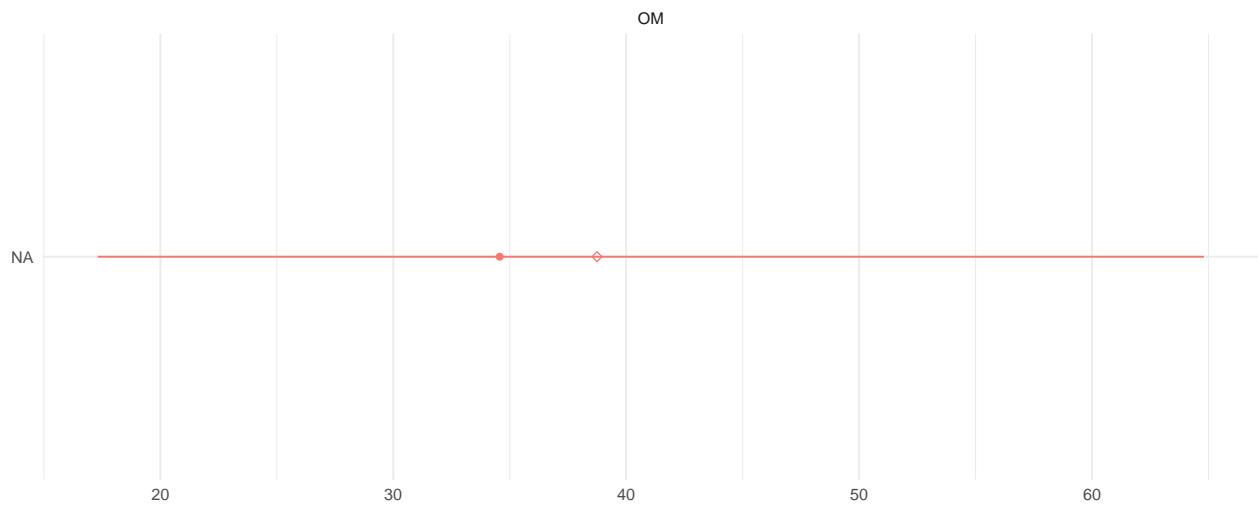Ribbons represent the 80% credible intervals.

Mobility effect

NA

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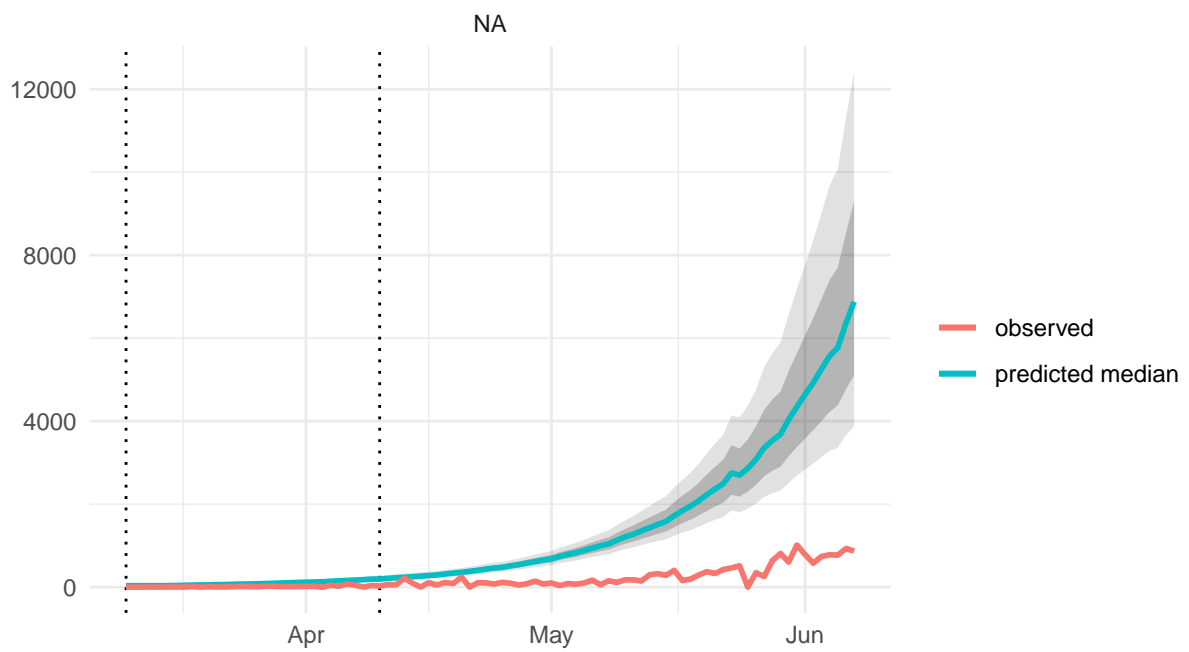Ribbons represent the 80% credible intervals.

$S_{t, m}$

NA

1.00

0.99

0.98

0.97

Apr   May   Jun

adj_factor

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

β

OM

NA

−0.5   0.0   0.5   1.0

β_1
β_2
β_3

NA

7.5

5.0

2.5

0.0

New Deaths

Apr   May   Jun

observed
predicted median

Imputed Cases

OM

NA

20   30   40   50   60

New Cases

predicted vs observed

NA

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.

IFR

OM

NA

0.0022   0.0024   0.0026