Burkina Faso

Data

New Deaths
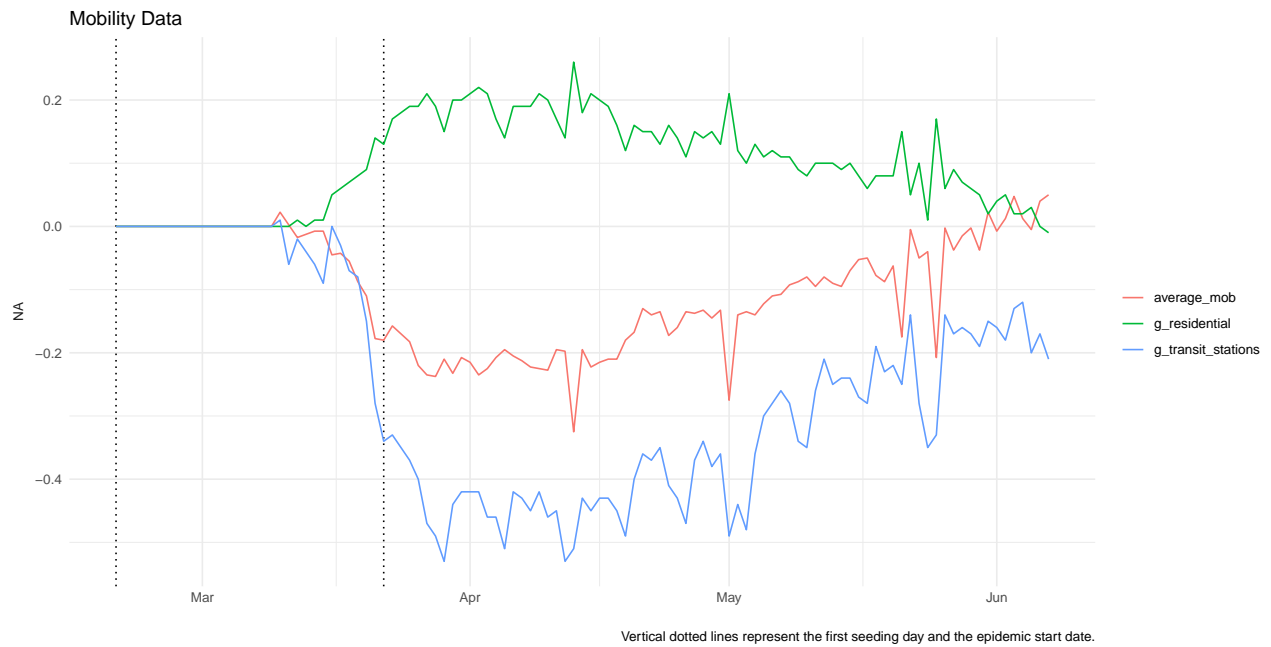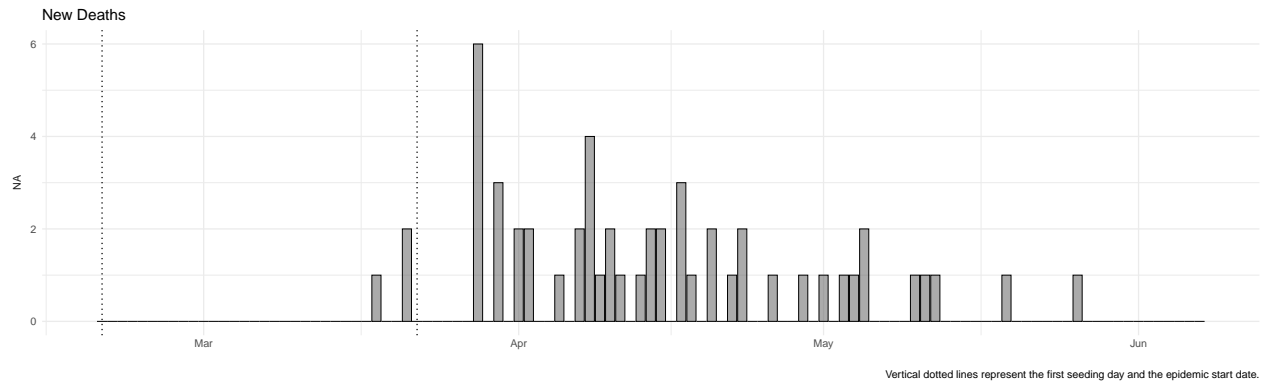
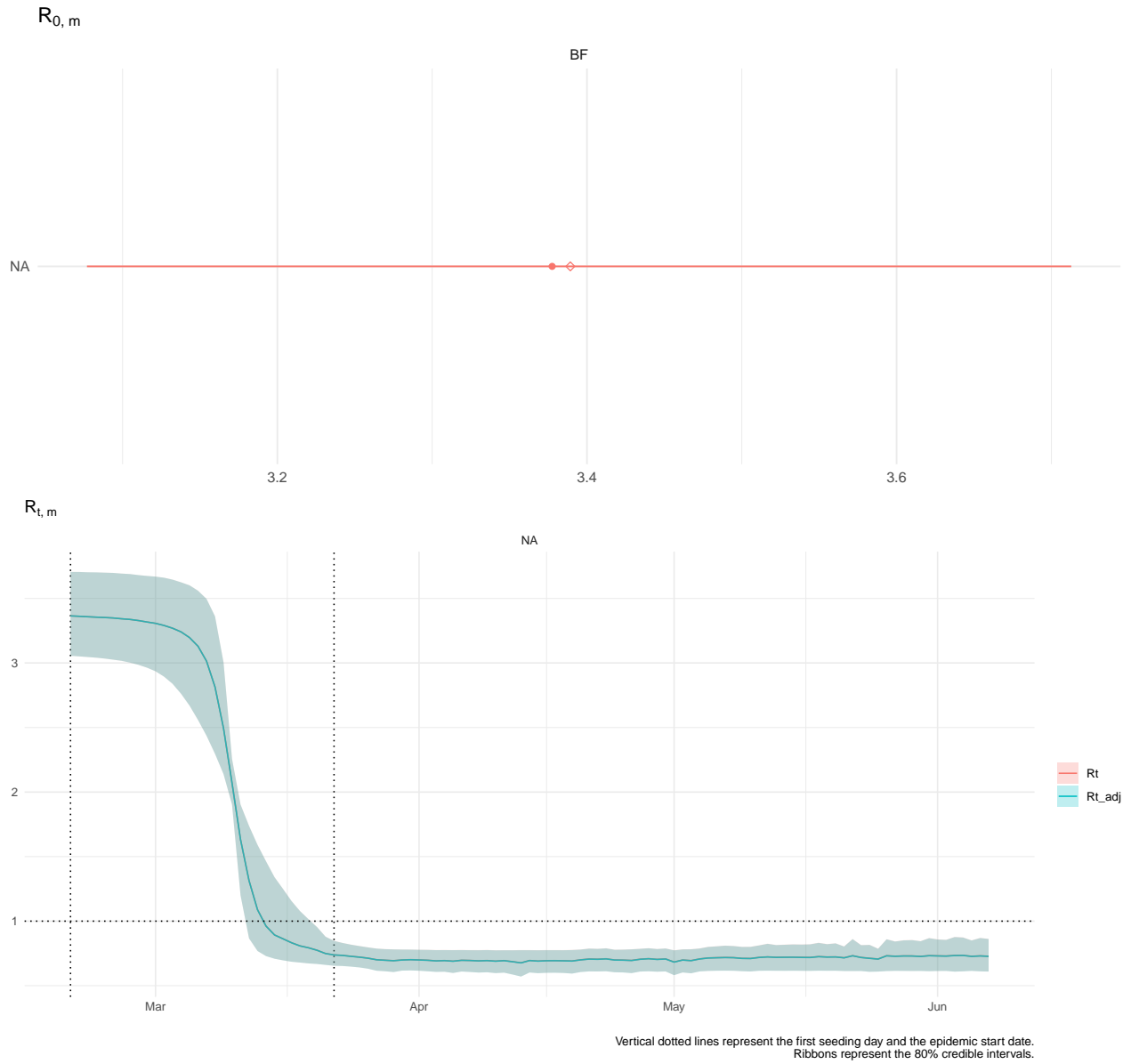Mobility Data

- average_mob
- g_residential
- g_transit_stations

Analysis

Number of divergent transitions = 0

Maximum $\hat{R}$ = 1.002546

Minimum Bulk ESS = 1539.782

Minimum Tail ESS = 998.3549

$R_{0, m}$

NA

3.2   3.4   3.6

$R_{t, m}$

NA

3

2

1

Mar   Apr   May   Jun

Rt
Rt_adj

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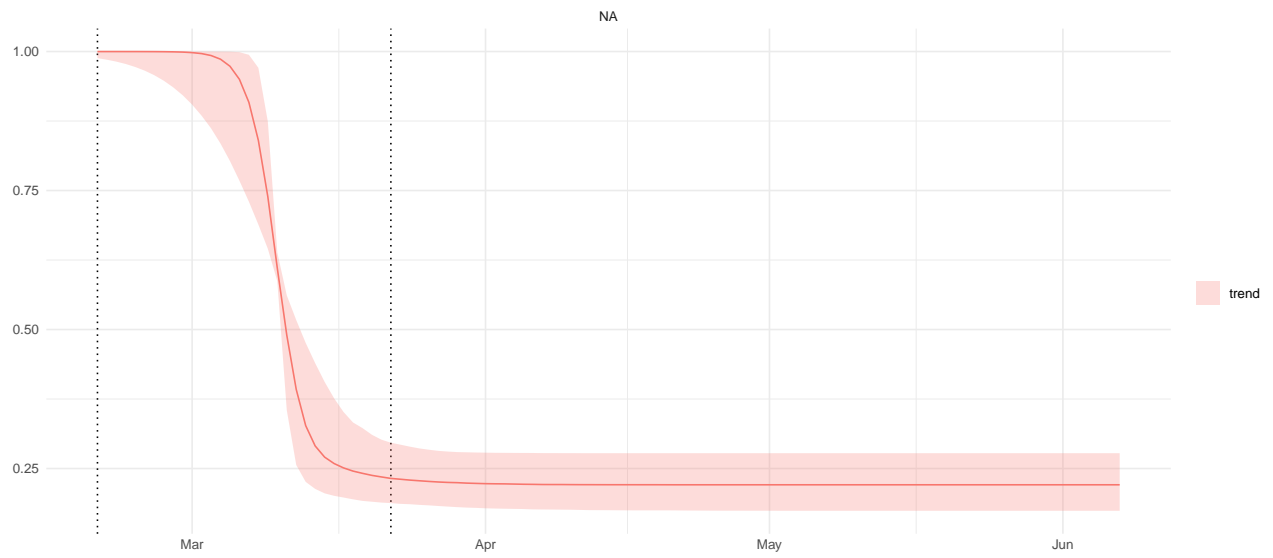
Contact rate function:

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

where

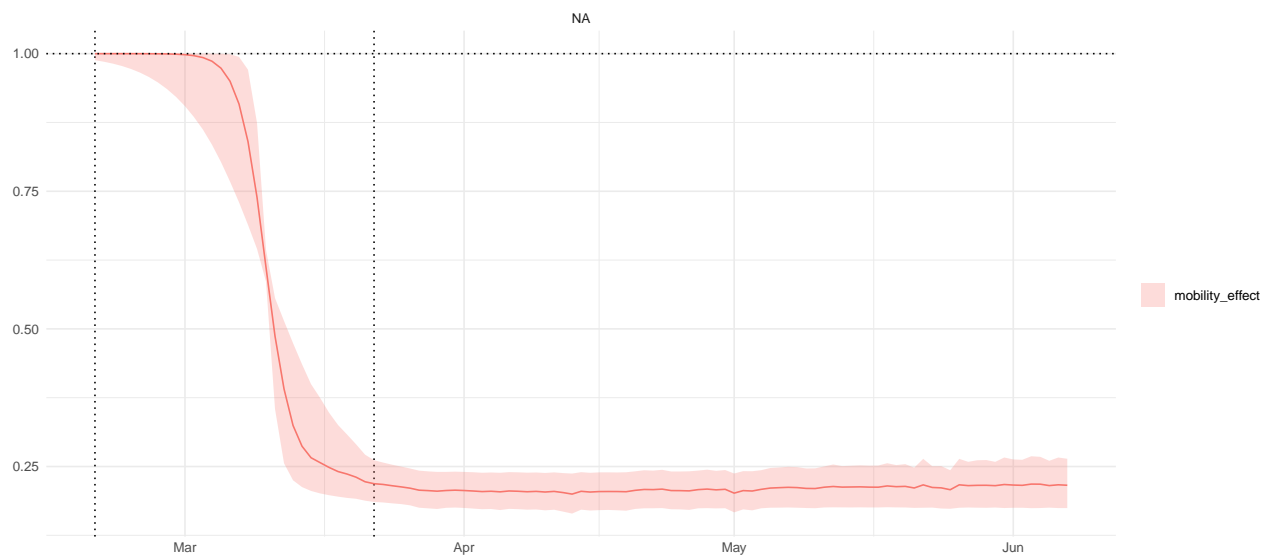$$\lambda_j \sim \texttt{Beta}(3, 1)$$
$$\kappa \sim \texttt{NegHalfNormal}(0, 1).$$

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.

$S_{t,m}$

NA

1.0000

0.9995

0.9990

0.9985

Mar   Apr   May   Jun

adj_factor

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

BF

NA

0.6   0.7   0.8   0.9   1.0
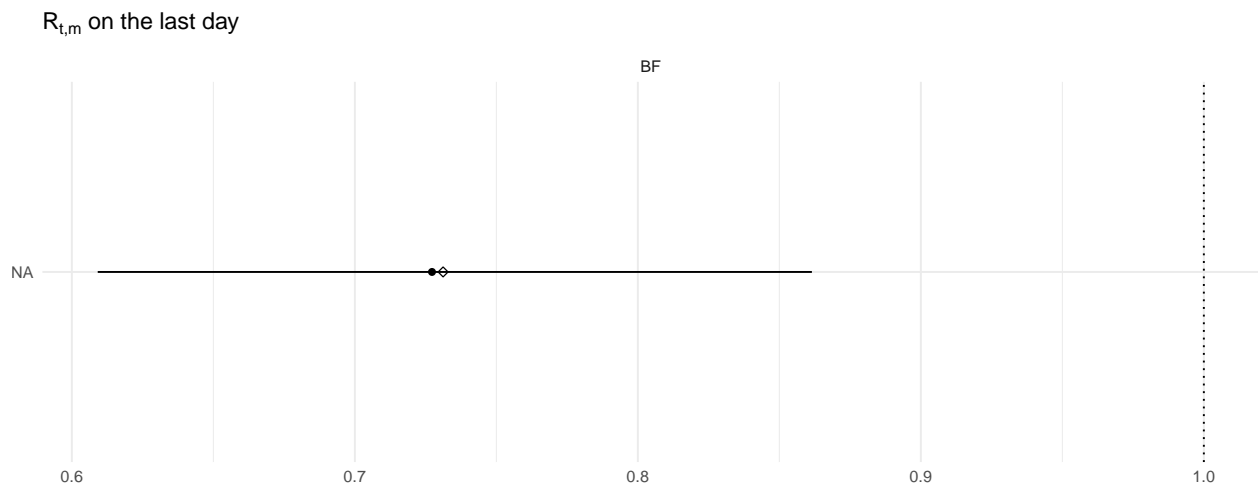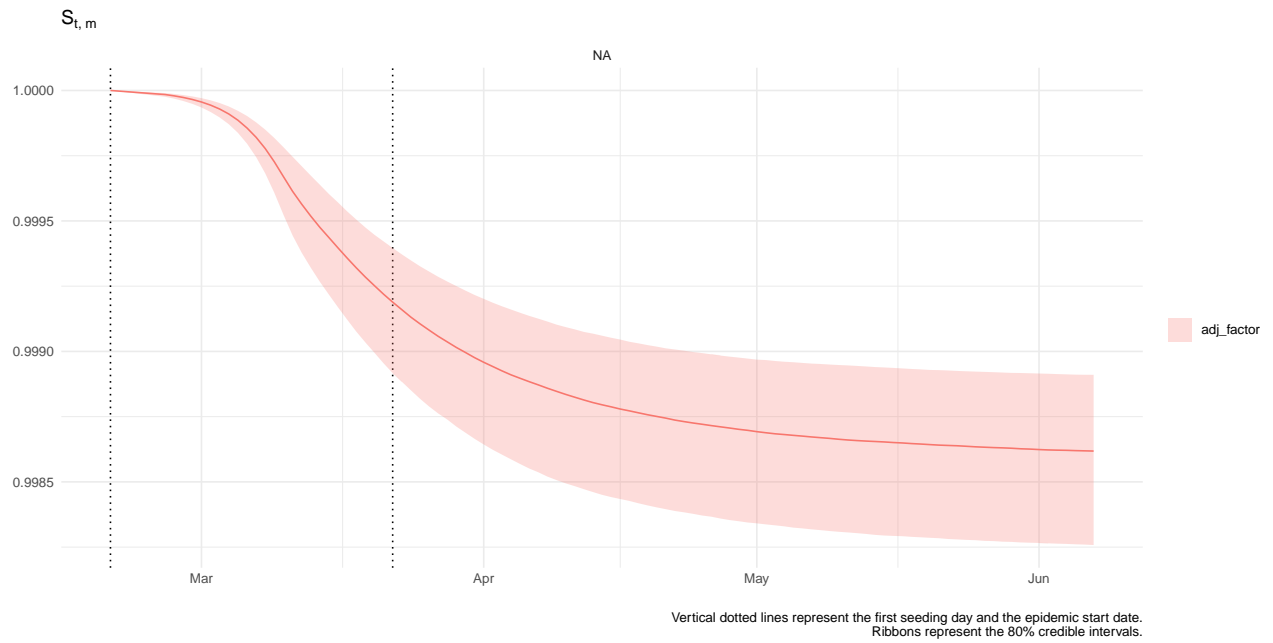
Mobility linear model: $\beta_1 \cdot X_{\text{residential}} + \beta_2 \cdot X_{\text{transit}} + \beta_3 \cdot X_{\text{average}}$.

β

BF

NA

−0.5   0.0   0.5

● β₁
● β₂
● β₃

NA

New Deaths

6

4

2

0

Mar   Apr   May   Jun

— observed
— predicted median

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

BF

NA

40   50   60   70   80

IFR

BF