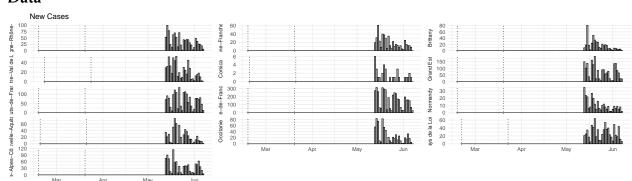
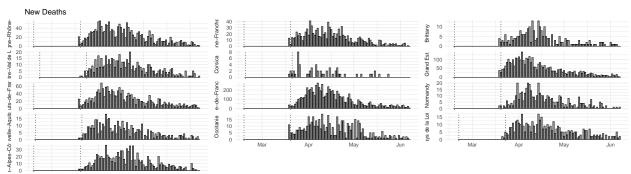
# France

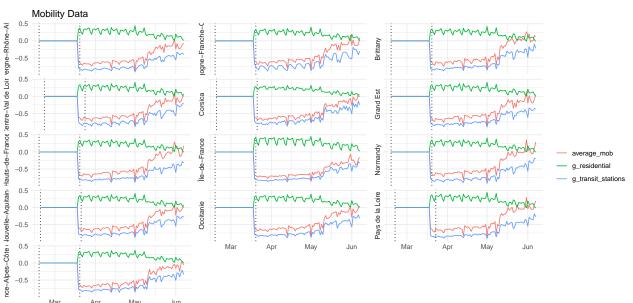
#### Data



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



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

## **Analysis**

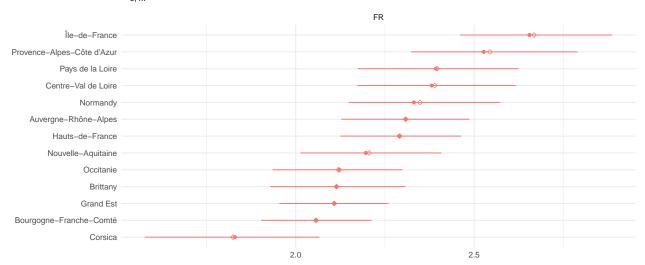
Number of divergent transitions = 0

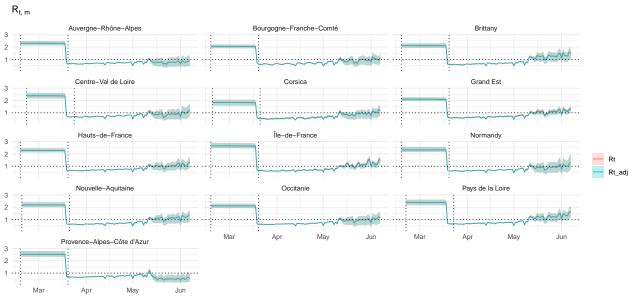
Maximum  $\hat{R} = 1.004496$ 

Minimum Bulk ESS = 874.7034

Minimum Tail ESS = 1464.719

 $R_{0.m}$ 





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

Ribbons represent the 80% credible intervals.

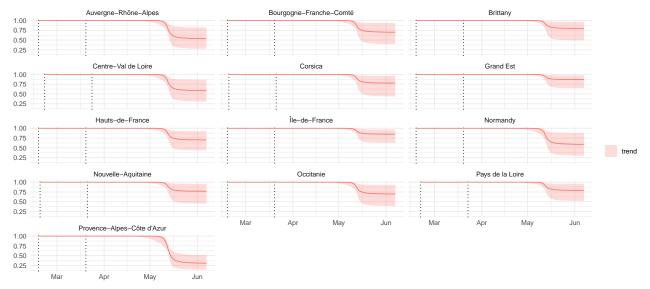
Contact rate function:

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

where

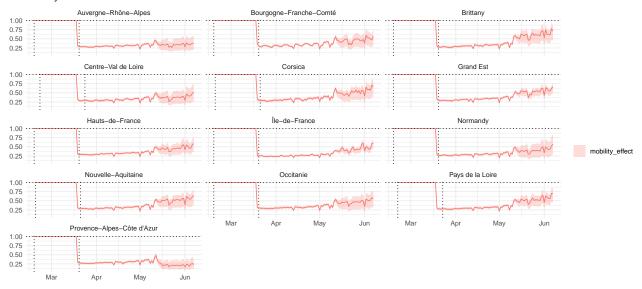
$$\lambda_{j} \sim \text{Beta}(3,1)$$
  $\kappa \sim \text{NegHalfNormal}(0,1).$ 

#### Contact Rate

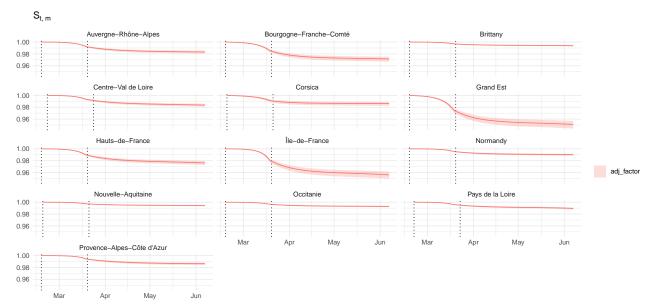


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

#### Mobility effect

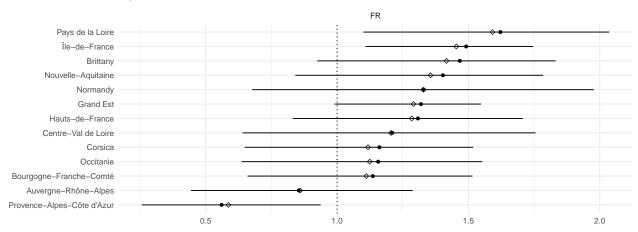


Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.



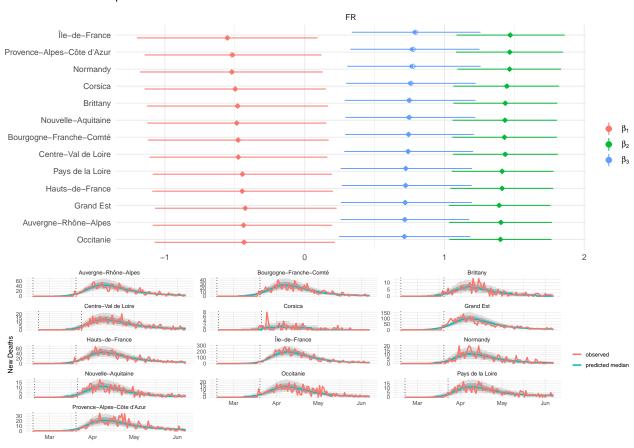
Vertical dotted lines represent the first seeding day and the epidemic start date. Ribbons represent the 80% credible intervals.

### $\boldsymbol{R}_{t,m}$ 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.

#### Imputed Cases

