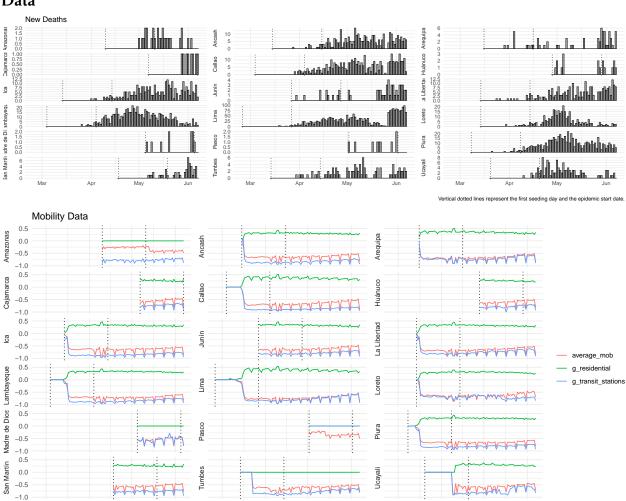
# Peru

### Data



## **Analysis**

Number of divergent transitions = 1

Mar

Jun

Apr

Jun

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

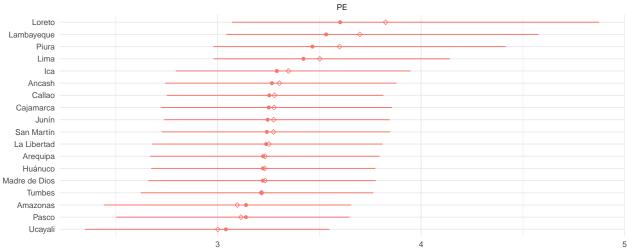
Maximum  $\hat{R} = 1.004871$ 

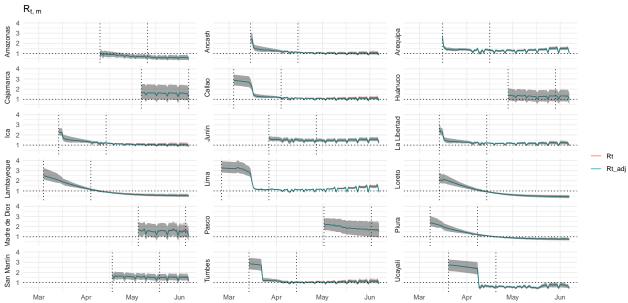
Minimum Bulk ESS = 626.0937

Apr

Minimum Tail ESS = 330.1581







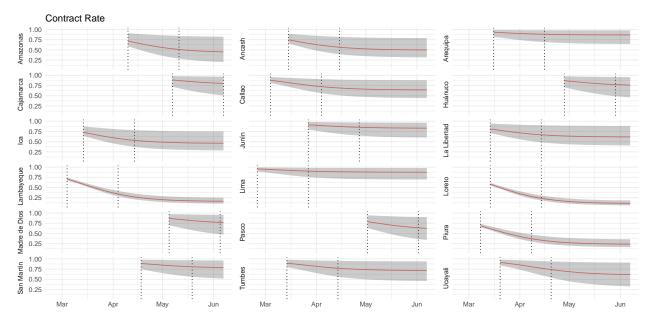
Contact rate function:

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

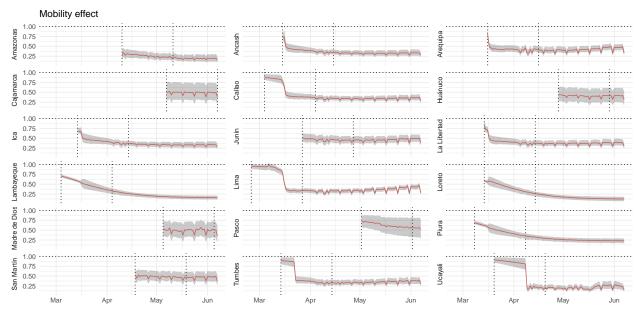
Vertical dotted lines represent the first seeding day and the epidemic start date.

where

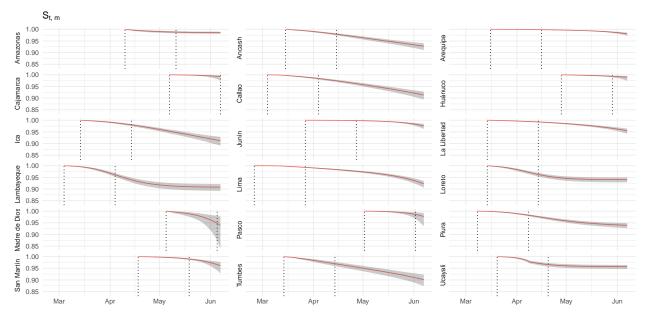
$$\lambda_j \sim \text{Beta}(3,1)$$
 $\kappa \sim \text{NegHalfNormal}(0,1).$ 



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

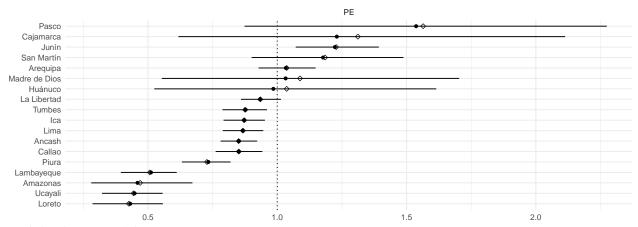


Vertical dotted lines represent the first seeding day and the epidemic start date.



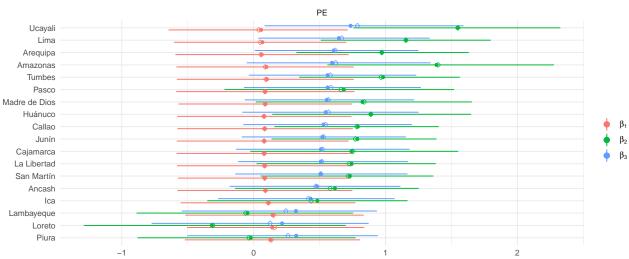
Vertical dotted lines represent the first seeding day and the epidemic start date.

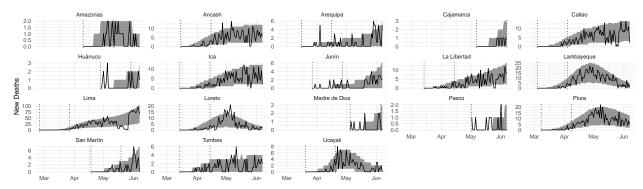
### $R_{t,m}$ on the last day



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

