

SUPPLEMENTARY TABLE S2. VARIABLES TESTED
FOR EACH TIME SERIES AVAILABLE AND FOR POISSON
AND NEGATIVE BINOMIAL DISTRIBUTIONS

| <i>Variable name</i> | <i>Variable description</i> |
|----------------------|---|
| year | Year considered |
| week | Week of the year considered |
| time | |
| season | Week number according to the total number of weeks available in the data set |
| month | Month of the year considered |
| sin | $\sin(2\pi \cdot (\text{week}/53))$ |
| cos | $\cos(2\pi \cdot (\text{week}/53))$ |
| period8 | Round($\text{week} \cdot 8/52$) |
| period8shift | Round($(\text{week}+4) \cdot 8/52$) |
| season.shift2 | Round($(\text{week}-4) \cdot 4/52$) |
| sinX2 | $\sin(2\pi \cdot \text{week}/26.5)$ |
| sinX2.shift | $\sin(2\pi \cdot (\text{week}-6)/26.5)$ |
| sinminus6 | $\sin(2\pi \cdot (\text{week}-6)/53)$ |
| sinminus12 | $\sin(2\pi \cdot (\text{week}-12)/53)$ |
| sinminus18 | $\sin(2\pi \cdot (\text{week}-18)/53)$ |
| sinX4.shift | $\sin(2\pi \cdot (\text{week}-3)/13.25)$ |
| sinX4 | $\sin(2\pi \cdot (\text{week})/13.25)$ |
| sinX3.shift | $\sin(2\pi \cdot (\text{week}-4)/18.33)$ |
| sinX3 | $\sin(2\pi \cdot (\text{week})/18.33)$ |
| histmean | mean of the 53 previous weeks (and guard band of 4 weeks) |