

Exploratory data analysis

Data sets

Second Generation Surveillance System (SGSS)

Norovirus and Campylobacter Weekly Laboratory Reports

Covid-19 Testing

Covid-19 testing in England is categorised into three pillars, Pillar 1 (NHS + PHE reference laboratories), Pillar 2 (UK government testing program) and Pillar 3 (Antibody testing). Only Pillar 1 data were used for the modelling. Data were downloaded from governmental website:

<https://coronavirus.data.gov.uk/details/testing?areaType=nation&areaName=England>

Stringency Index

Oxford COVID-19 Government Response Tracker developed Stringency Index to quantify how strict was the government's response on a given day. The calculation is described in detail:

<https://www.bsg.ox.ac.uk/sites/default/files/Calculation%20and%20presentation%20of%20the%20Stringency%20Index.pdf>

Central England Temperature (CET)

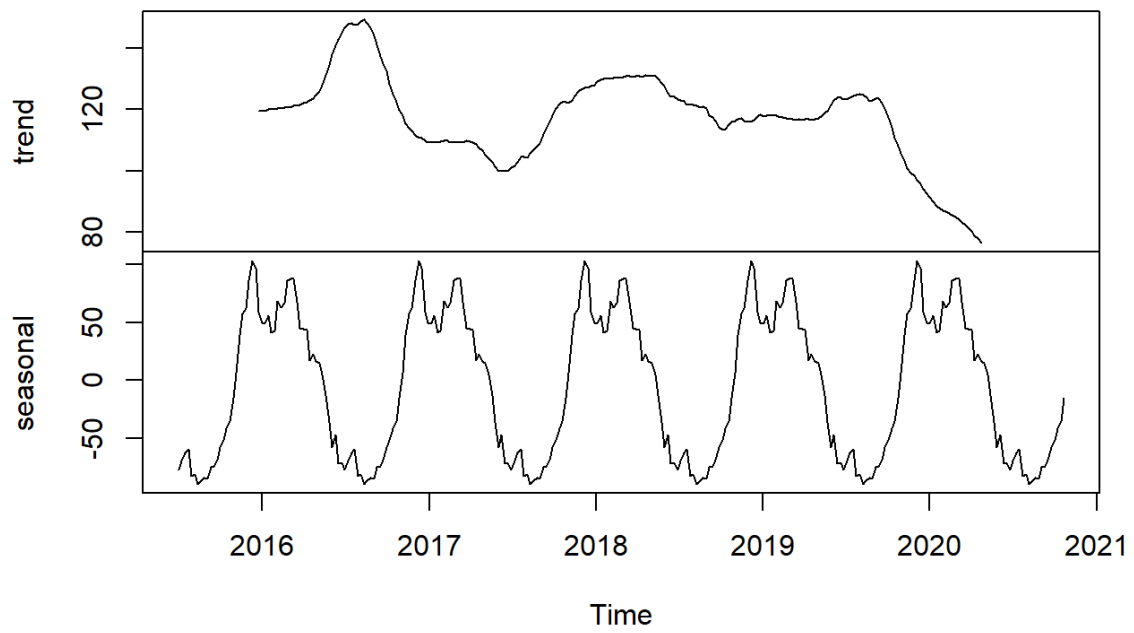
Average air temperature from MET office:

<https://www.metoffice.gov.uk/hadobs/hadcet/cetdl1772on.dat>

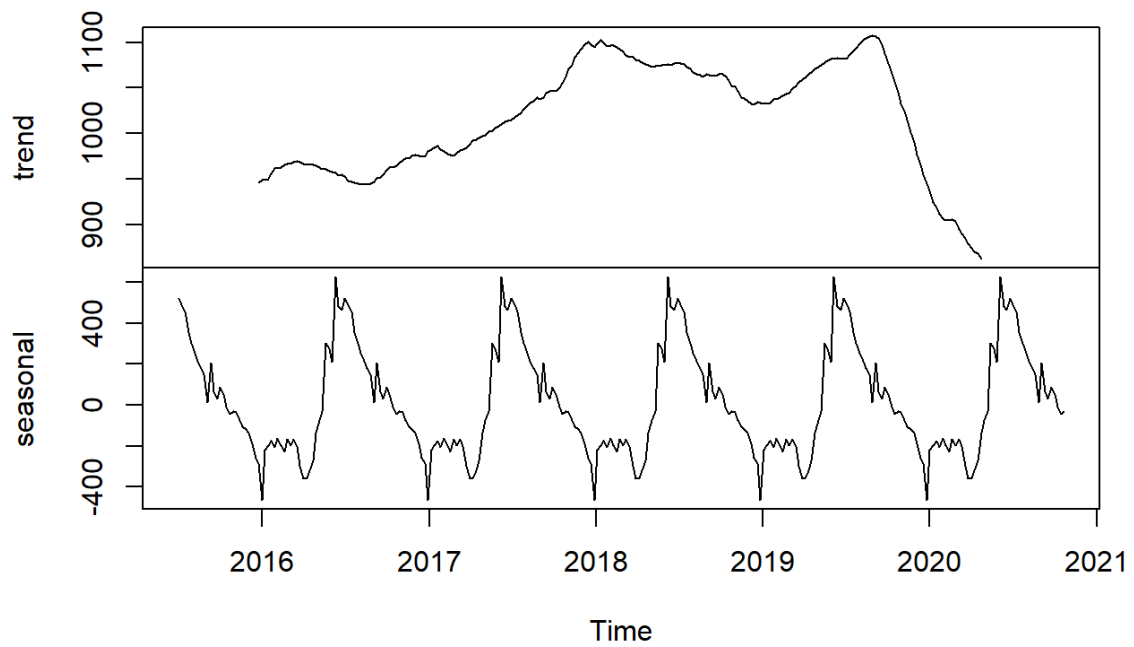
Data Summaries

	norovirus	campylobacter	Sarscov2	Stringency_lag1	mean_temp_lag1
Min.	3.00	220.00	-20.72	-13.23	-1.07
1st Qu.	46.00	801.50	0.00	0.00	6.87
Median	90.00	969.50	0.00	0.00	11.06
Mean	107.30	1006.80	1.68	0.24	10.86
3rd Qu.	164.80	1197.20	0.00	0.00	14.95
Max.	316.00	1823.00	64.31	53.18	20.71

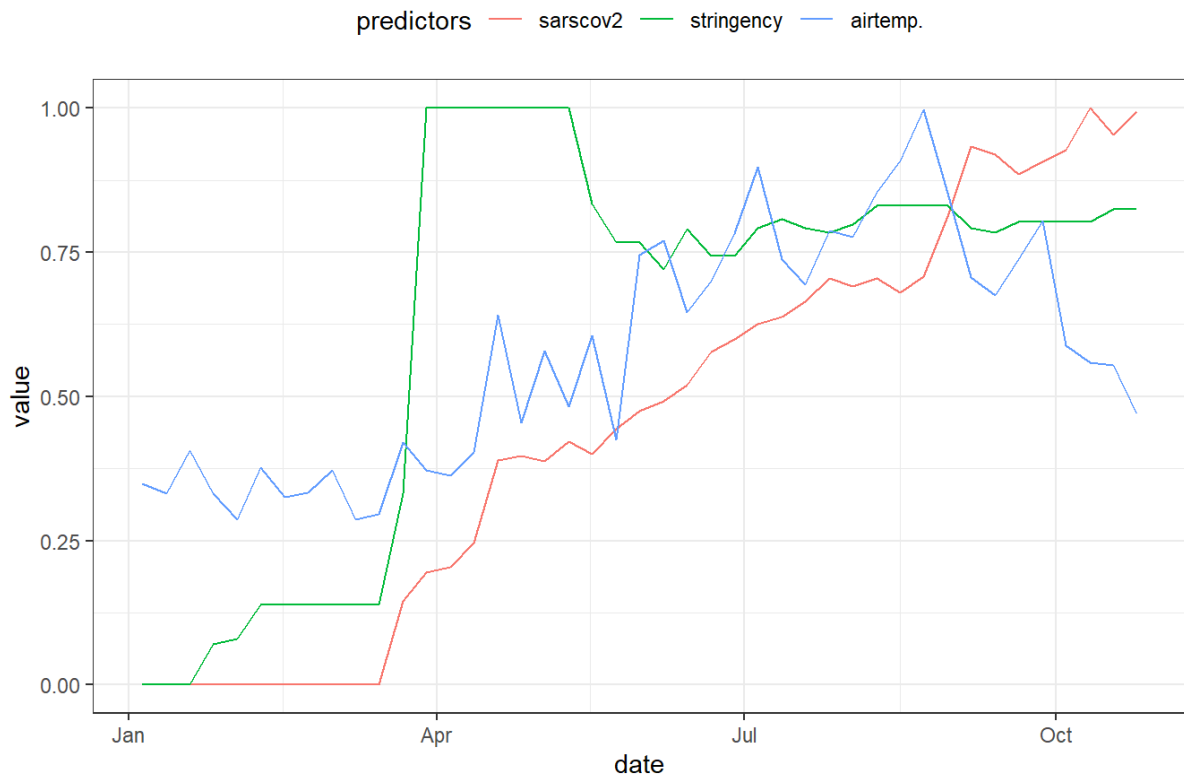
Norovirus Reports - Additive Decomposition



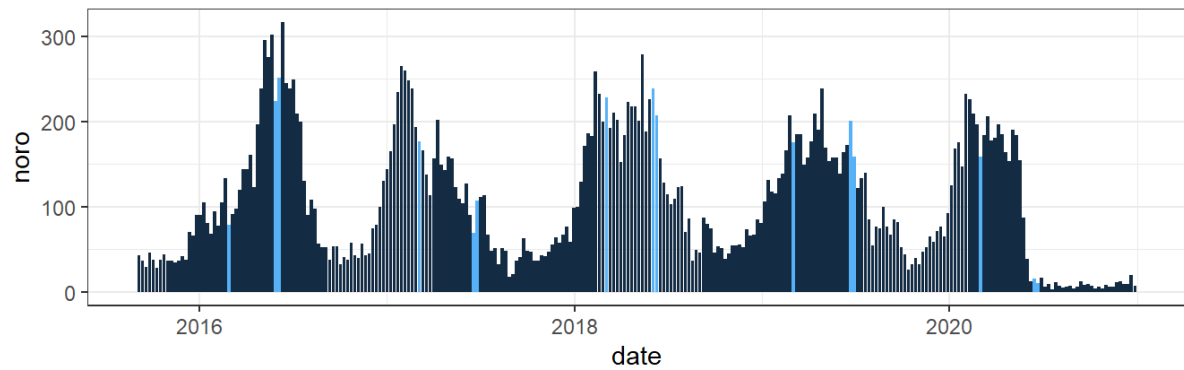
Campylobacter Reports - Additive Decomposition



Shared explanatory variables (W1-W43, 2020)



Norovirus Weekly reports: Christmas and Easter highlighted



Campylobacter Weekly reports: Christmas and Easter highlighted

