

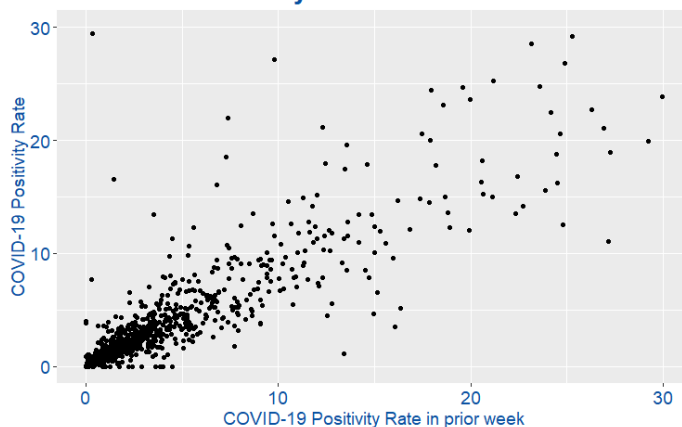
AIRPORT PASSENGER DATA REJECTS RELATIONSHIP BETWEEN AIR TRAVEL AND INCREASING COVID-19 TRANSMISSION RATES

ACI EUROPE analysis finds that an increase in air passengers in a country has no statistically significant relationship with the COVID-19 test positivity rate, based on aviation, public health and community mobility data.

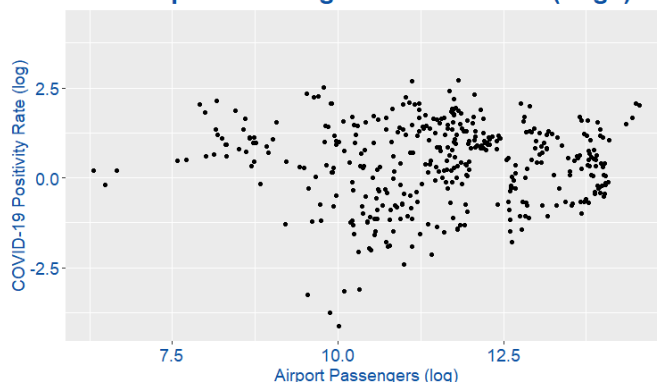
ACI EUROPE assessed the change in the rate of positive confirmed results for COVID-19 tests (COVID-19 positivity rate), depending on changes in volumes of passengers at airports in the same country, for countries in Europe. The time period considered spans July, August and September (weeks 27 – 44), the dates with the highest daily levels of airport traffic in Europe since April 2020. This period is when COVID-19 was already present in the population.

The full results of the fixed effects panel regression are available in the detailed paper on ACI EUROPE's website.

COVID-19 Positivity Rate and Rate in Prior Week



COVID-19 Positivity Rate and Airport Passengers in Prior Week (Logs)



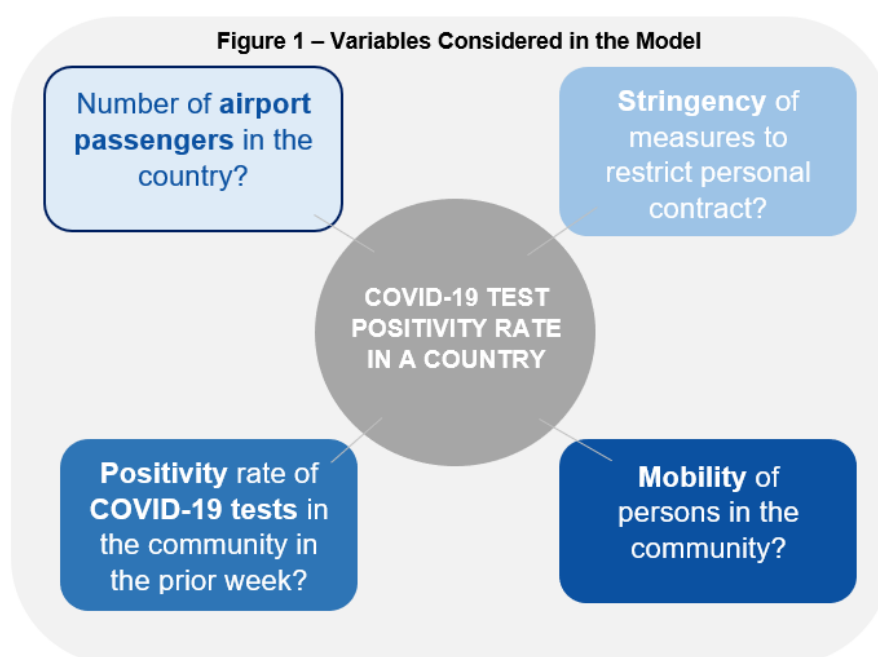
This result holds true for all controls applied in the model: rates of COVID-19 positive tests in the community during the prior week, **stringency of government measures**, and **community mobility**. Even if the variable for airport passengers had a statistically significant result, the influence on COVID-19 rates is very small: The coefficient for airport passengers in the prior week varies from -0.013 to 0.034 depending on the controls, again showing the lack of strong impact on the response variable (see Annex).

The only variable that was consistently statistically significant was the COVID-19 test positivity rate in the country in the previous week. This relationship is demonstrated in the two charts below. Chart 1 demonstrates the clear trend in the data revealing that COVID-19 rates are highly influenced by the level of rates in the previous week. Chart 2 does not reveal any clear trend at all – pointing to the lack of any correlation between increasing airport passengers and changes in the COVID-19 rate.

It is essential to note that this note does not suggest that aviation has no role in the transmission of viruses. Indeed, a substantial number of papers have documented how air travel at the initial stages of a novel virus have led to its transmission. This analysis aims to consider the role of air transport during a time period when the virus is already present in the population.

The model, depicted in figure 1, aimed to identify the relationship between air passengers and the COVID-19 test positivity rate in a country, during the summer months in Europe. In descriptive terms, the model assessed changes in the COVID-19 test positivity rate based on changes in air passengers in a *country* during a *certain week*, controlling for the COVID-19 test positivity rate in the prior week, the stringency of measures and changes in the movement of people, in the *same country* during the *same week*.

Figure 1 – Variables Considered in the Model



Source: ACI EUROPE