

Covid-19 measures in countries

Effect on population: cases Italy, US, Japan

The table below shows the correlation between the Stringency Index and the Positive Rate, defined as daily new cases divided by new tests.

The nine metrics used to calculate the Stringency Index are: school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; and international travel controls. The index on any given day is calculated as the mean score of the nine metrics, each taking a value between 0 and 100.

As example, -4 weeks lag means Stringency Index on week W in correlation with number of cases / number of tests 4 weeks later.

Checking the results in the three selected countries:

- Italy: More correlation on positive lag. In practice, the more positive rate, the more measures the Italian government put in place.
- US: The higher correlation comes with a -1 week lag, therefore, the measures from the government had an effect ca. 1 week later.
- Japan: No correlation between measures taken by the government and the positive rate in tests.

| lag measures vs. impact | Italy | US | Japan |
|-------------------------|-------|------|-------|
| - 4 weeks | 0.08 | 0.37 | 0.08 |
| - 2 weeks | 0.33 | 0.57 | 0.15 |
| - 1 week | 0.46 | 0.62 | 0.16 |
| No lag | 0.58 | 0.62 | 0.17 |
| + 1 week | 0.69 | 0.60 | 0.17 |
| + 2 weeks | 0.74 | 0.55 | 0.17 |
| + 4 weeks | 0.77 | 0.38 | 0.06 |