

# Evidence of the importance of contact tracing in fighting the COVID-19

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## Abstract

**Background:** We conducted data analysis to determine whether there are distinguishing characteristics depending on the success or failure of control for COVID-19 by country in the trend of the daily number of confirmed cases and the number of tests. **Methods:** We obtained the number of confirmed cases and tests per day for almost every country in the world from Our World in Data. We applied the Pearson correlation between the two time series was calculated according to the time delay to analyze the relationship between the number of tests and the number of cases with a lag. **Results:** For each country, we obtained the time lag that makes the maximum correlation between the number of confirmed cases and the number of tests for COVID-19. It can be seen that countries whose time lag lies in a special section between about 15 and 20 days are generally successful in control COVID-19. It looks like a trench on the battlefield. **Conclusion:** We have seen the possibility that the success in mitigating COVID-19 can be expressed as a simple indicator of the time lag of the correlation between confirmed cases and tests. This indicator can be presumed to be a sign of an effort to actively tracing infected person.

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