

Data Science

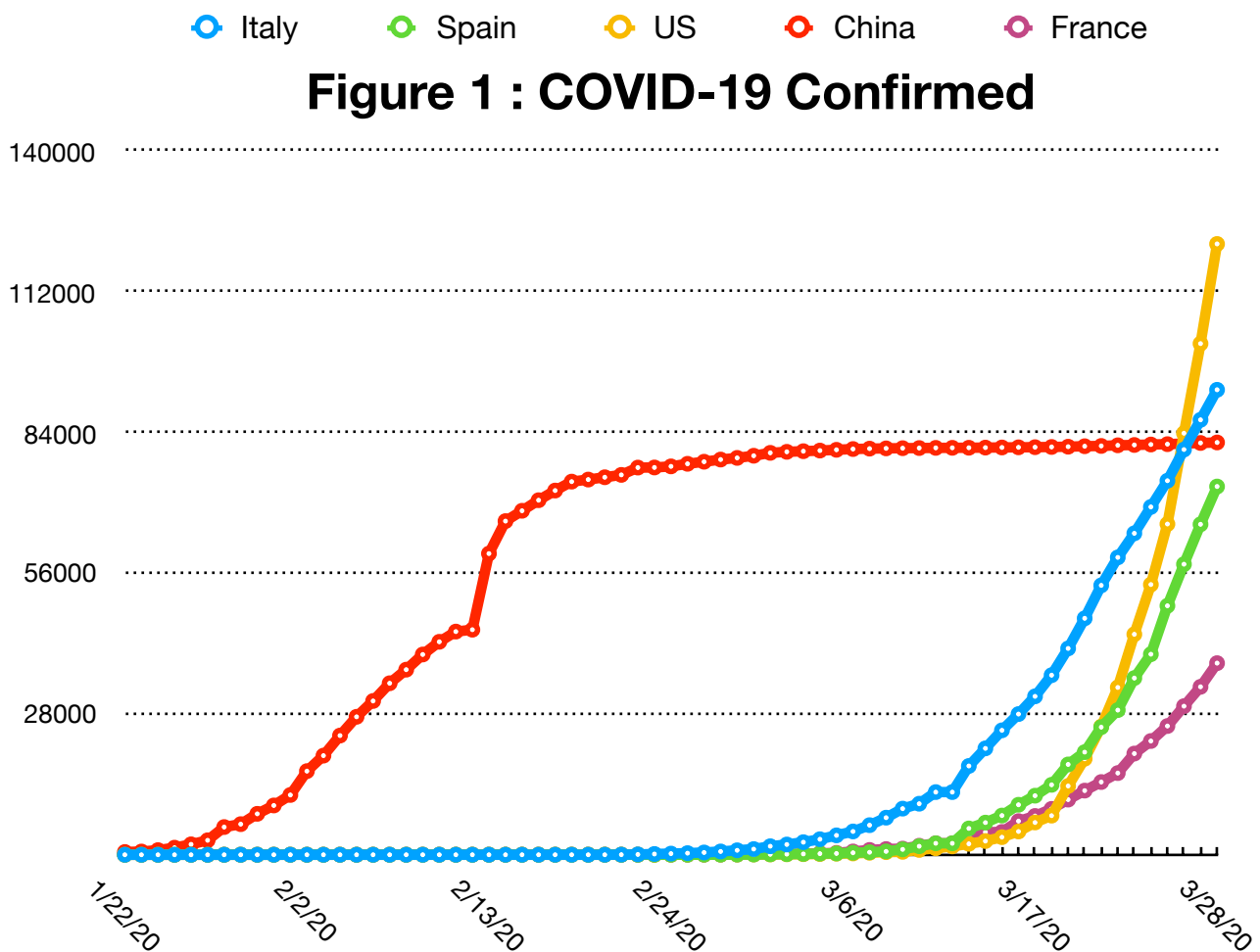
Cross-country correlation analysis for research on COVID-19

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The spread of the new coronavirus (COVID-19), which started in China, is accelerating in Western countries, with the focus of Italy beyond Asia.

As you can see by **Figure1**, The confirmed cases of the new coronavirus were followed by Italy, Us and China.

In particular, an increase in the number of infections in Italy is We need to find out why there were more stringent situations in Italy than in other countries.

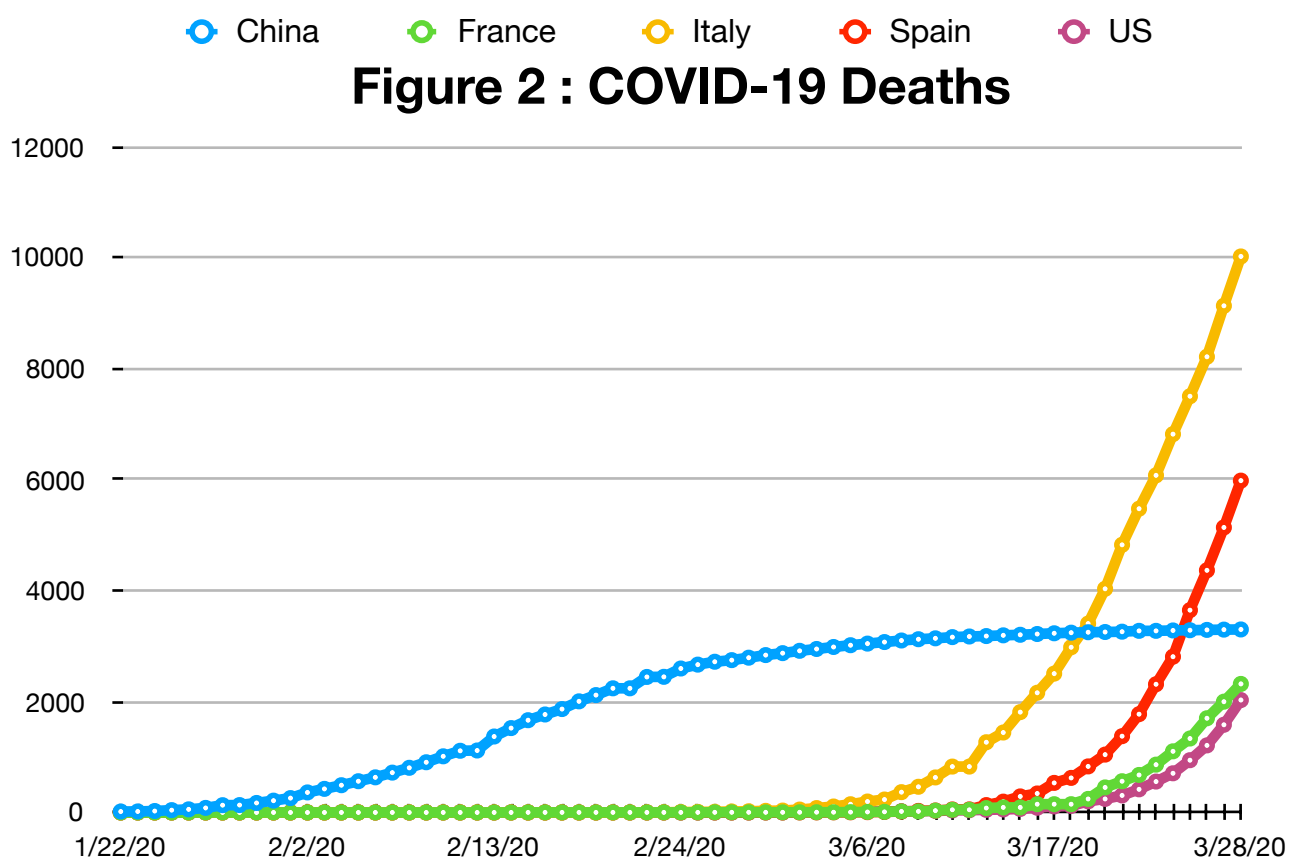


Italy has performed quite a few tests to determine if it is infected with the new coronavirus. It is necessary to judge carefully whether it is good or bad.

However, one of the causes of the deaths seems to have been that the examinations flooded many hospitals and put a strain on medical practice. There are many nosocomial infections.

In addition, there may be social circumstances specific to Italy. According to data from the European Commission questionnaire, in Italy, the number of exchanges with family and friends is "everyday" more than in other countries, and "weekly" exceeds 60%. In Europe as a whole, greetings are commonplace for shaking hands and hugs, so it is considered more susceptible to infection than in Korea and other countries.

As you can see by **Figure2**, The Deaths cases of the new coronavirus were followed by Italy, Us and China.



The number of deaths from the new coronavirus is increasing rapidly in Italy, Spain, France and the United States, but the shape of the graph is similar.

Two weeks later in Spain than in Italy, the curves of the graph are similarly following in the form of France and the United States.

At this rate, the death toll in Spain and the United States is likely to exceed 10,000

Especially in the United States, the number of deaths in the future is expected to explode as seen in FIGURE1.

In Korea, the mortality rate of infected people is quite low while the rate of testing is quite high.

On the other hand, the death rate is about 10 times that of Korea compared to the size of Italy's tests.

More than 10,000 people have died so far, according to the data. Italy's population composition is quite different from most countries in the world. According to a 2015 U.N. report, 28.6% of the population in this country is over 60 . In comparison, South Korea has 18.5 percent of the population aged 60 or older, the 53rd largest in the world.

The effect of this imbalance is obvious when analyzing deaths caused by the new coronavirus. In Italy, over 70 years of age account for 90 percent of the deaths in the writing of the main school.

In contrast, the spread in Korea occurred among much younger solidarity. Only 20 percent of those infected account for 60 or older. The most infected age group is in their 20s and nearly 30 percent of the total is focused on it.

References

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3. Italy, Spain and Europe in rapid spread of infection Analysis of Dr. Tanaka of Dai-ichi Life Economic Research Institute.