

25 April 2020: Big Data Analysis Report of COVID-19 Pandemic

The Global COVID-19 pandemic has reached its peak before April 25. However, many countries in Asia, Europe, North and South America have yet to come to the peak. The situation in Africa remains uncertain.

Since April 2020, North America and Europe have become the global focus in the prevention and control of the COVID-19 pandemic. The Wind Data team and Professor George Yuan Xianzhi's Big Data Model team have been working together to release analysis reports for global communities.

Based on the official released data from the countries in Asia, Europe, South America and North America (as of April 25 & [1] - [3]), by inputting the data into the iSEIR model ([4] - [6]), we have conducted a comprehensive scenario simulation and scenario analysis. Here is the pandemic outlook for the countries from late April to early May 2020. The situation in Africa remains unclear due to insufficient data and poor conditions on prevention and control of COVID-19.

I. Situation Summary as of April 25, 2020

Many countries have reached their peak for prevention and control of COVID-19 before April 25, 2020, such as Japan and the United Arab Emirates in Asia, most European countries including the United Kingdom, Turkey, Serbia and Ireland, the United States and Canada, etc.

II. Forecast as of April 30, 2020

1) The following countries will reach their peak for prevention and control of COVID-19 by April 30, 2020: Qatar, Israel, Saudi Arabia and Indonesia in Asia, Belgium and Norway in Europe.

2) However, from April 9 to April 25, Singapore is showing a rebound with 10% growth rate every day. The situation there remains unclear.

III. Forecast for the period from the end of April to the beginning of May

1) The following countries have shown no signs of under control of Covid-19: India and Pakistan in Asia; Russia and Belarus in Europe; Brazil, Ecuador, Peru in South America, and Mexico in North America. Prevention and control methods may take effect by the end of April or the beginning of May.

2) The situation in Africa remains unclear due to insufficient data and poor conditions on prevention and control of COVID-19.

Note: the meaning of “under-control” in the report is referring to a new cases rate is less than 10 percent daily and a consistent rate drop for six consecutive days.

References

[1] Big Data Analysis Report of the Pandemic (4.21): the turning point of multi-national prevention and control will appear before the end of the month, Wind Financial Terminal Platform, April 19, 2020.

<https://news.windin.com/ns/findsnap.php?sourcetype=1&id=494455188&code=9269E0C4835D&show=wft&device=android&terminaltype=wft.m&version=20.1.2&lan=cn&share=wechat>

[2] Big Data Analysis Report of the Pandemic (4.18): the turning point of multi-national prevention and control will appear before the end of the month, Wind Financial Terminal Platform, April 19, 2020.

<https://news.windin.com/ns/findsnap.php?sourcetype=1&id=494310739&code=61C29DC98192&show=wft&device=android&terminaltype=wft.m&version=20.1.2&lan=cn&share=wechat>

[3] Big Data Analysis Report of the Pandemic (4.16): the turning point of prevention and control in the United States and Europe has arrived, Wind Financial Terminal Platform, April 16, 2020

<https://news.windin.com/ns/findsnap.php?code=78B810577FA1&sourcename=news.windin.com&ad=0&sitetype=1&sourcetype=1&id=494087487&terminaltype=wft.m&device=ios&version=6.1.0&show=wft&share=wechat>

[4] Yuan GX, Di L, Gu, Y, Qian G, Qian X. The Framework for the Prediction of the Critical Turning Period for Outbreak of COVID-19 Spread in China based on the iSEIR Model. Medrxiv.org. doi:

<https://doi.org/10.1101/2020.04.05.20054346>

[5] Yuan GX, Di L, Gu, Y, Qian G, Qian X. The Prediction for the Outbreak of COVID-19 for 15 States in USA by Using Turning Phase Concepts as of April 10, 2020. 2020; 24: Exclusive. Asian-Pacific Biotech News (APBN)

<https://www.asiabiotech.com/exclusive/exclusive.html>

[6] Yuan GX, Di L, Gu, Y, Qian G, Qian X. The Prediction for the Outbreak of COVID-19 in European Countries by Using Turning Phase Concepts as of April 9, 2020. 2020; 24: Exclusive. Asian-Pacific Biotech News (APBN)

<https://www.asiabiotech.com/exclusive/exclusive.html>

Correspondences:

Professor George Yuan Xianzhi: George_Yuan99@yahoo.com or
George_Yuan99@suda.edu.cn
WIND data team: cli@wind.com.cn