How India is averting the 400-million-cases disaster

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Academic and popular media papers estimate India's COVID-19 numbers to scale up to 400 million infected cases. However, data shows that India may be successful in curtailing the number, finds Dr Vishal Jani.

By Dr. Vishal Jani

India had her first positive case of coronavirus detected on the 30th of January 2020, but the string of cases that set the epidemic rolling in the subcontinent started from the 3rd March 2020. The closure of March marked 28 days – four weeks for India and her efforts in combating the dreaded virus. The government has been proactive in taking decisions like lockdown, empaneling private labs for testing, ramping up isolation bed capacity by innovative ways of inducting railways in the gigantic task. Given the resources, India has shown immense resilience to the pandemic.

There has been a glut of academic and popular media papers predicting a total number of cases and deaths in India and some of the estimates scale up to 400 million infected cases. However, it remains to be seen whether this holds true or not. Based on last month's data and comparing it to the countries that are severely impacted like the USA, China, Italy, Spain, France, Germany, Switzerland, and South Korea, India's numbers look nothing less than encouraging.

Four-week analysis

In the following analysis, the daily growth rate in total cases and weekly growth rate in total cases (based on CAGR formulae) are used and a scenario is built around India if she had followed the rates other countries had when they completed their first month or four weeks to be precise.

Country (No. of days) *	Total Cases**	Daily (28 days)	Daily (till date)	Weekly (4 weeks)	Weekly (till date)
China (76)	82547	0.28	0.1	3.4	0.75
South Korea (68)	9786	0.15	0.14	1.71	1.63
USA (41)	164620	0.25	0.26	3.95	4.68
Iran (41)	41495	0.4	0.28	4.54	3.02
Italy (39)	101739	0.33	0.26	2.98	2.34
Spain (36)	85195	0.4	0.34	6.01	4.55
France (35)	44550	0.31	0.27	3.81	2.98
Germany (35)	61913	0.32	0.27	4.71	3.46
Switzerland (35)	15412	0.4	0.33	5.44	3.76
UK (34)	22141	0.27	0.25	4.41	4.41
India (28)	1251	0.23	0.23	2.05	2.05

*** Calculated based on formulae: [(Latest/ First) ^ (1/number of time period)] – 1

Note: * Number of days indicate since how many days a country is seeing a non-positive increase in the cases

** Total cases as on 31/03/2020 as per European Centre for Disease Prevention & Control (ecdc.europa.eu)

Data shows that India is not doing that badly. Indian daily and the weekly rate at the end of four weeks are higher only to South Korea's respective rate. All other countries had higher rates. However, if proper precautions are not in place, India may end up like the USA. The country had a lower rate of growth, both daily as well as weekly at the end of their fourth week, compared to its exponential current rate. Except, the USA, all other countries have shown a decline in daily and weekly growth rates when the current rates are compared with their rates at the end of their respective fourth week.

Strategies in place

India's nation-wide lockdown for 21 days is expected to avert the worst-case scenario. Based on the experiences of other countries, only two strategies are working: social distancing and mass testing. If we consider the end of the fifth week – 35 days, South Korea (0.22) and Spain (0.34) were the countries with the lowest and the highest daily growth rate.

The South Korean case indicates mass testing is the way with individual social distancing. They started the community-wide testing very early and avoided the complete lockdowns. However, India does not have the luxury of the availability of the testing kits required for mass testing and has to depend on lockdown.

In the meantime, the government along with private players is ramping up the testing capacity and has increased the daily testing. Based on the data and strategies in place, it appears that India will have a substantial number of total cases, but the disaster of 400 million total cases can be averted.

(The author is Assistant Professor Indian Institute of Public Health Gandhinagar, India)

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https://www.ha-asia.com/how-india-is-averting-the-400-million-cases-disaster/