

## The Coronal Virus and Challenge to Our State Organizations

Part 4

Friday February 14, 2020

What we now know about the new coronavirus originating in December in China is that it is trending into a pandemic affecting many countries as opposed to a virus limited in its scope. Two weeks ago on Friday (January 31) estimates were nearly 10,000 confirmed cases in China and cases in 17 other countries. There were 120 deaths.

Last Friday's (February 7) estimated cases are 30,000 and 700 deaths. Cases have been reported in 30 countries. It is likely to continue to increase through February and March into the month of April and affect most countries around the world.

This Friday's (February 14, 2020) estimated cases are nearly 65,000 and 1400 deaths. There was a sharp increase in cases reported from China on February 12 and 13.

It has been suggested that reporting irregularities were to blame. That incident suggests how variable reporting accuracy may be. Lack of technology, overwhelming numbers and reluctance to report all are suggested in how reports are developing in China and most other countries. 28 countries are reporting cases regularly but none are reported in Africa, Latin America, Indonesia, the Middle East including Iran, Iraq, Saudi Arabia, Turkey, Egypt, and the Caribbean.

There may be genetic variables that affect susceptibility as most cases are among older Asian men but cases and deaths have included women, children and infants. The evidence is strong that the virus started in north central China, the city of Wuhan, and has spread through human contact to all of China. The fact that many

areas of the world are not reporting cases or deaths is likely a result of limited contact with carriers of the disease. China is the most populous nation on earth and the Chinese people travel widely and have trade relations with most of the world. That would suggest that in time more countries will show cases as human contact spreads the virus.

#### **Some Caveats On The Soundness of Data**

These case data come from government authorities. They may be hospital employees, persons such as police and emergency health services and funeral home operators. Cases of the virus are established through the administration of a test of nasal or lung secretions or lung x-rays. Such data combined with symptoms such as coughing and fatigue provide the determination of the virus. If the person is deceased, the establishment of the case may come from other known cases in the household or neighborhood. The reality is that only cases that occur in a hospital or clinic setting may have higher accuracy of determination of this particular virus. The various challenges of determining the existence of the virus both in a living person and in a person's body means that incidence data must be viewed with caution. There can be mistakes in gathering secretions from a patient, the testing may be flawed, the fact that deaths are occurring in the household or neighborhood from this particular virus may not mean that it is the cause with a specific case or officials may suppress reporting. On Wednesday, the Centers for Disease Control-CDC recalled testing kits it has shipped to some states as the kits were flawed and would not report accurate data on the coronavirus. Furthermore, it is reported that persons that are in the early stages of the disease may test negative. Only as the disease develops do current tests then detect the disease.

*Because there is an unknown window of time between when a person becomes infected and when the test can find the virus, health officials have determined that a quarantine of two weeks — believed to be the incubation period of the illness — is the best way to make sure that people who may be infected do not transmit the virus to others.*

*Tests for other infectious diseases can also fail to detect some cases. A panel of tests used to screen for respiratory viruses when pneumonia is suspected can give negative results even if a patient is infected, Dr. Marrazzo said. So can rapid tests for flu and strep throat. Blood tests for H.I.V. can miss the diagnosis in people who were recently infected.<sup>1</sup>*

### **Where The Data Originate**

These case data that make up the estimates come from sources such as the World Health Organization, who, in turn depend on nations and each nation's regional and local authorities. Wealthier, more educated countries will have more accurate and up to date reports. Reporting and then the harm and deaths are likely to be greater in the poorer parts of the world.

### **Immediate Implications for Texas**

Oil demand is falling since a year ago and prices of West Texas Crude are just above \$50 a barrel. Computer and electronics firms should start to feel supply shortages from Chinese suppliers. As examples Nissan, today, has announced that it is suspending its auto production in Japan as well as China because of needed parts from China not being available. Hyundai and Kia are shutting plants in South Korea and China as some items such as wiring harnesses are produced only in Chinese factories and those are closed. Transportation accounts for about 90% of all oil usage and a decline in auto production will affect oil consumption. China's economy will have shrinking funds to purchase Texas agriculture products. Oil exports, manufacturing supply chains between Texas and China and agriculture trade are the core components of Texas economic activity tied to China. Lastly, very few cases of the virus are reported in Texas with only one confirmed with a group sent to Lackland Air Force base in San Antonio. The person is quarantined and in a hospital. California and Washington are the two states encountering the largest number of cases as well as travelers to and from China. The impact began to appear in the last week of

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<sup>1</sup> <https://www.nytimes.com/2020/02/12/health/coronavirus-test-kits-cdc.html?searchResultPosition=2>

January and has grown immensely by the middle of February. Quarantines is an ancient concept to try to control things that are passed from person to person. The larger the number of people and the greater the amount of contact, the more rapidly and fully a phenomenon can spread. Some diseases spread only with close and intimate contact with another person. Some can spread via animals and insects. Rabies and malaria are examples. Some diseases like the common cold, seasonal flu and this new virus can spread through the air from an infected person. Quarantines are a public mechanism to limit individual movements to lessen transmission. China, a nation of 1.4 billion persons has now sought to quarantine over 50 million of its population. Wuhan is the largest city, 11 million, under quarantine. Air, rail, and road transportation has been ended or severely restricted. China's neighbors like Japan, South Korea, Singapore, Taiwan, Thailand and others have enacted various restrictions on travelers from China. Other countries far from China including the United States have begun some forms of quarantines to limit travel and thus the spread of the virus.

Quarantines do work if contacts can be prevented. Nations with strong borders and low levels of travel with other nations will find quarantines successful. That, however, is not much of a reality today. Because of its large population and success in developing a manufacturing economy, in terms of numbers, China has more contact with the rest of the world than any country. Efforts at quarantining can slow the spread. This will be accompanied with economic declines as trade is restricted. It may result in long-term efforts to decrease dependence from importing products and labor. This will create shortages and increased costs in the immediate future as can be seen if one seeks to purchase a protective facemask. Two weeks ago a colleague commented to me that in Australia they are available at the airport for \$100 each!

We are in the very early stages of this epidemic. Public concerns will rise. So will costs. Economic declines are beginning.