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Demystifying the COVID-19 Pandemic

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Global outbreak of the infectious respiratory disease named “coronavirus disease 2019” (COVID-19) has unleashed a public health emergency. This pandemic is spread in all countries across every continent, except Antarctica, in varied temperature ranges of Northern and Southern hemispheres.It is caused by a highly mutating novel severe acute respiratory syndrome coronavirus (SARS-CoV-2) that naturally evolved in bats like earlier MERS-CoV and SARS-CoV viruses.

Pandemics have caused a heavy toll of lives on Earth. Nicholas Poussin’s famous painting “The Plague of Ashdod” of 1630, displayed in the Louvre, is a grim reminder of how epidemics ravaged populations. In the last century, deadly 1918 influenza flu pandemic emphasized basic hygiene rules. Twelve rules were learntthat also apply to the COVID-19 pandemic today. Three most important ones include to avoid crowding by social distancing, maintaining cleanliness of mouth, skin, hands and clothes, and choosing and chewing food properly.

The COVID-19 is way more dreadful than a flu. SARS-CoV-2 virus appears to compromise lung and target oxygen-carrying capacity of erythrocytes to various organs in the body. It spreads through respiratory droplets when aninfected person coughs, sneezes, or comes in the vicinity of another individual. There are no specific treatments or drugs available to directly intersect or cure COVID-19.

However, the good news is that COVID-19 spread is preventable. The global trends available for its day-by-day spread are helpful in predicting the course of the disease. Containment measures are being enforced by quarantines, travel restrictions and lockdowns in many countries. They are the only recourse to break the cycle of infection as virus survival depends on infecting a human host. Many countries are already in the exponential phase of infections while others are lagging only to catch up soon.

The risk will be unmanageable if people are left to be infected with the virus, assuming that the “herd immunity” will take care of them. Herd immunity is an indirect protection from an infectious disease that occurs when a large proportion of the population has become immune to the infection either through previous infections or vaccination. Since SARS-CoV-2 is highly mutable — as is influenza —it is unlikely to achieve herd immunity even if 100% of the population is exposed or vaccinated.

Our only opportunity to contain COVID-19 virus is by social distancing before it is too late. Unfortunately, too many countries have taken this opportunity lightly! It is critical to prevent further spread of the virus so that large numbers of people arenot sick simultaneously to overburden healthcare facilities.

Scientific results indicate that one can prime immunity by eating healthy food (vitamin-rich fruits, vegetables and fortified foods), regularly engaging in physical activities, such as walking/jogging/running while maintaining physical distancing, and mind-body de-stressing (good quality sleep, yoga, meditation, *hasyaasan*/laughter, family time etc.).

Including established medicinal spices such as turmeric, ginger, cumin and black pepper, or herbal products in food will likely help but will not cure the infection. In the modern world, a large population is deficit in critical vitamins required in the body. Taking supplements of Vit D3 (5000 units a day) and Vit C (2000 mg daily) should support the normal functioning of the body.

Long-term public health and wellness should take precedence over everything else, including the economy. After all, the economy is made up of the people. This crisis will challenge our notions and force us to adopt new ways of working and living in sync with nature. Let us keep calm and retune ourselves to unleash creativities unique to humans: artists engage in fine arts and music, writers in creative writing, and others in their respective talents while biomedical scientists worldwide are busy understanding SARS-CoV-2 virus for developing effective medical countermeasures.

Let us pledge that we will prevent COVID-19 spread by practicing social distancing or distance socializing. Humans have overcome pandemics in the past. We will prevail again if we make better judgements. The COVID-19 disaster is preventable.