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## response to COVID-19 | Opinion

*Risk and uncertainty are associated with the fact that we live in a nondeterministic world in which we do not have complete information.*

**Mauricio Bugarin** Guest columnist

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### Story Highlights

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According to the Worldometers real-time statistics organization, by Oct. 1, 2020, the COVID-19 pandemic killed more than 1 million people across the world.

In comparison, communicable diseases have caused the death of more than 9.7 million people this year.

Given these figures, it may come as a surprise the great commotion the COVID-19 pandemic is causing worldwide.

### **What makes this new pandemic so different from other health challenges society faces recurrently?**

Society's reaction to the new coronavirus pandemic can be better understood by means of two fundamental concepts of modern Economic Theory: risk and uncertainty.

Both concepts of risk and uncertainty are associated with the fact that we live in a “non-deterministic” world in which we do not have complete information about the phenomena that surround us. The fundamental difference concerns the level of incompleteness of that information.

In the event of a risky situation, we can anticipate what may happen and even determine reasonable probabilities about possible events. When we move around in our home city, for example, we know that we are at risk of being mugged on the way. However, since we know the city, we have a good idea about which areas are more dangerous, which hours are riskier, which means of transportation are safer to use. There is risk, but the consequences and their probabilities are well known, and this allows us to make decisions with some confidence.

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know which neighborhoods are safer, which roads are more dangerous, etc. In this case it is not surprising that a certain panic takes over us.

## Why are we not afraid of heart disease?

Heart disease is the number one cause of death in the U.S., taking the lives of some 655 thousand people every year, according to the U.S. Centers for Disease Control and Prevention. This is over three times the death toll of COVID-19 in the US.

Like for the new coronavirus, there are no vaccines for heart disease; however, people do not panic about it. This is certainly a risk we all face, but we know considerably more—its prevention, symptoms, treatments, medicines, etc.

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Consider now COVID-19. Nothing was known about it until late 2019 and it seemed relatively confined to the Chinese province of Hubei earlier this year. Contradictory information was revealed: that it was not airborne transmissible, that the virus could not resist the heat, that it would be a simple flu, etc., until, suddenly, cases burst worldwide. Soon Italy became the global epicenter of the pandemic, fatalities multiplied.

## An information vacuum still exists

Extraordinarily little is known about this new coronavirus strain to this day. It is a clear situation of uncertainty in which we have been unable to estimate the probabilities associated with the pandemic. How many will be infected? What organs in our body, besides the lungs, does the virus target? Why do some people stay on respirators for weeks and survive while others die within a few days?

Faced with this situation of great uncertainty, we understand the difficulties in making consensual decisions and coordinating ourselves as a society against the new threat of COVID-19.

*Mauricio Bugarin is full professor of economics at the University of Brasilia and visiting scholar at Vanderbilt University.*