

EPIDEMIC VERSUS PANDEMIC

The time for discussing our global health has never been more important with Coronavirus in the headlines.

Exactly what is this coronavirus? Well, it's a novel (meaning new) virus that belongs to the same family as Middle East Respiratory Syndrome (MERS) that emerged in 2012, and Severe Acute Respiratory Syndrome (SARS) that reared its ugly head in 2002 and 2004. They are part of a very large family of viruses which may cause illness in animals and humans. Of concern is when these viruses "jump" from animal to human, and of more concern is when they "jump" from human to human making control that much more difficult.

Just how did these viruses develop?

The blame has been placed on exotic animals like bats and even snakes, and on not so exotic animals like the pig and the chicken. The bottom line is that at this time, we really do not know. The World Health Organization does not know. But the theories abound – from global warming to overuse of antibiotics to lethal research (bio-warfare) in labs to issues with the farming, distribution and consumption of wild animals. (According to news reports COVID-19 may have started at a wildlife market in Wuhan and it is unclear which animal transferred the virus to humans although bats, snakes and pangolins have all been suggested and China will likely bring its culturally important and lucrative wildlife industry under control to prevent another outbreak.)

What we do know is that it most likely began in China and that the Chinese government has been less than open with its information.

We do know exactly how deadly it is and that borders have absolutely no restrictions. What started as an epidemic in Wuhan, quickly jumped borders and countries to cause what we have now – a Pandemic.

Well, what exactly is a coronavirus? To answer that question we must go back to the 1960s when infectious bronchitis virus was isolated in chickens (remember that outbreak?) two separate viruses isolated from the nasal cavities of patients

with the common cold. So is this species the common cold? Absolutely not. The common cold is not deadly. The coronavirus is. To date it has killed 2-3% of those infected. Compare that with the 0.1% fatality rate of influenza of any form.

The best guess at this time is that it originated in Wuhan, China as epidemiologists have been able to trace it back to a seafood market that also sold both processed and live meat of donkeys, camels, foxes, badgers, hedgehogs and rats. The first wave of illness was mostly from people that had visited that market. The operating word here is “most” not all.

But how did this virus hop from animal to human? And how do we know that this actually happened? This is where science comes in. Researchers compared the 2019-nCoV genetic sequence with those in their library of viral sequences and discovered that all 10 of the genome sequences were 99.98% similar. Had the jump from animal to humans occurred long ago, the genetic sequences would have evolved and have less similarity.

Having no idea of its origins is frightening. Given the right funding and the right tools, our CDC in concert with the WHO will find the source and the cure or vaccine. But if we continue to cut funding for health and medical research, and if we continue to throw antibiotics at every sniffle, scratchy throat, headache regardless of cause, then we are merely setting ourselves up for failure and pandemics of epic proportions.

Remember the swine flu? Remember the 1918 pandemic flu that killed more than were killed in actual fighting? Oh, and there is of course, the bubonic plague which was another pandemic but caused by a dormant bacteria from the Gobi Desert of all places. It simply hopped a ride on the travelers of the Silk Road and emerged in Italy and then Russia. Some 75 million died in this pandemic. But some of the lesser known pandemics and worrisome diseases include *Toxoplasma gondii* which is spread by cat feces and infects the brain contributing to neuroticism and even schizophrenia. Some 50 million Americans are affected.

Remember Ebola? And HIV/AIDS? And of course, there is the stomach ulcer of *helicobacter pylori* which left untreated can lead to a specific form of stomach cancer.

Regardless of how it developed and where it started, we must contain it. We cannot close a blind eye, nor can we allow economic concerns to inhibit our response. Singapore, Hong Kong and China took the most drastic precautions and as a result, have managed to contain its spread. When China shut down Shanghai and Hong Kong, when they became ghost towns the Western world chuckled because the thought of all that lost GDP and revenue was alien to them. BUT, lives were saved in the East due to what we consider draconian measures. In times of pandemics, draconian measures must be considered par for the course if we want to save lives. Our economy will recover quickly if the virus is contained.

Look at Singapore, their economy is bouncing back because the government worked hand in hand with ALL leaders of that country. The Catholic Church stopped communion, then stopped in-person attendance at masses, then they cancelled ALL gatherings. Period. Virtual masses are still being held with help provided to those who cannot access the internet. These people call in on their telephones. Hong Kong also is recovering economically because they have instituted strict quarantine measures and are aggressively testing and isolating suspected cases. China did the same. They are not playing games. But we are.

We have a President who has played fast and loose with our lives, at one point calling COVID-19 a hoax, blaming it on Democrats, on Obama even though it was the policies of the current POTUS to cut funding for pandemic research and development and according to a [REUTERS report](#) even cut a vital CDC post in China before the outbreak.

The graph below demonstrates the facts. We, the USA, are on the path to becoming the most affected, infected country in the world. We are on track to have the highest mortality rate in the world from COVID-19. Instead of immediately instituting precautions, our government called it a hoax, placed Mike Pence – a person with absolutely no medical bona fides, person who [believes that prayer will cure everything including homosexuality](#) – in charge. Then our President gave his [son-in-law Jared Kushner total control](#). Nothing would be done unless Jared Kushner, another person with no medical or scientific background, approved that action. Well, now Ivanka has been exposed.

Eventually Trump declared a national emergency; however, he has [blamed everyone but himself](#). Unlike the axiom of President Truman the buck does not seem to stop with our current POTUS.

What took him so long? Was he watching the stock market shed over 10,000 points before he acted? Was he worried about re-election? Was he making stock trades [like NC Senator Richard Burr and others](#)?

It appears that Trump placed his political fortunes and personal/business fortune ahead of everyone else's life. He placed his narcissistic self first which led to his followers believing him for far too long –believing that COVID-19 was and is a hoax perpetrated by the Democrats and their allies.

And now as the US Congress and US Senate debate its third stimulus package on the matter, POTUS will not answer whether [he and or his family businesses will receive public benefit](#).

I will leave you with this piece of encouraging news. We can reduce our chances of contraction. Through the simple act of handwashing – several times a day for twenty seconds and practicing good hygienic practices we can reduce our risks.

The World Health Organization offers this five step piece of advice:

1. HANDS----Wash them often
2. ELBOW--- Cough into it
3. FACE-----Don't touch it
4. SPACE---- Keep safe distance
5. HOME-----Stay home if you can

To that list I recommend going back to the old ways of boiling drinking water and then make ice from that water. It seems so simple doesn't it? And it is.

Furthermore, we need to stop demanding antibiotics for every cold and scratchy throat. That can also increase community health risk overtime.

And work with your family doctor and/or healthcare provider.

Our daily behaviors and habits can have a major impact on the spread of COVID-19 and we all bear simple responsibilities for ourselves and our families.

I cannot guarantee that you won't catch COVID-19, but I can at least provide you with cautionary tales and advice to mitigate your risk.

At the end of the day we should try our best to avoid annoying Mother Nature for when we fool with Her, we ourselves are playing the fool.

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