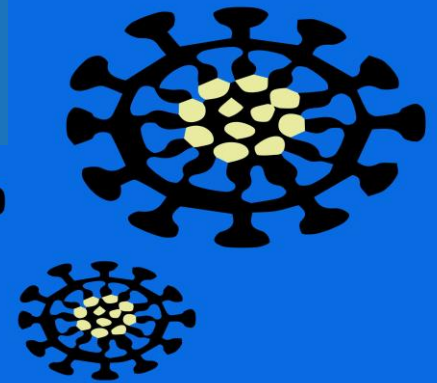


Wild Blue Yonder

News



Are We Prepared for the Next Pandemic?

Cadet Kelan Smith, AFROTC

Since 2020, there have been 10 virus outbreaks from SARS, resulting only in a total of 8,098 cases and 774 deaths, to the Swine Flu of 2009, which swept through 208 countries killing 12,220 people. Now, we are confronted by COVID-19, and there are 5.5 million cases and 340,000 deaths worldwide and counting. What will the next pandemic bring? How many people will be affected when it hits?

Dr. Peter Daszak, president of Eco Health, has estimated there to be about 1.5 million viruses in wildlife

that we do not know about and which could jump over to humans from animals at any time.

One of the best ways to fight a virus is through *herd immunity*, where the rate of infections slows and the virus curve begins to flatten infecting less people, but it takes time to achieve herd immunity naturally. Vaccines are a work-around way of doing it, but it takes a lot of time to develop vaccines and create the means of distribution. Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases,

“We mean it’s record time to get it tested. It’s going to take a year to a year and a half to really know if it works.”

—Dr. Anthony Fauci

For more *Wild Blue Yonder* materials on the ongoing COVID-19 crisis, see:

[“The United States Post-COVID-19,”](#) by Vinayak Dalmia & Vrinda Kapoor

[“Wrong Time to Hack: How Deterrence Theory Informs Policy Options in a Time of COVID-19,”](#) by Lt Col Scott Pence, US Army; Lt Col Ryan Sanford, US Air Force; & Col Nick Simontis, US Army

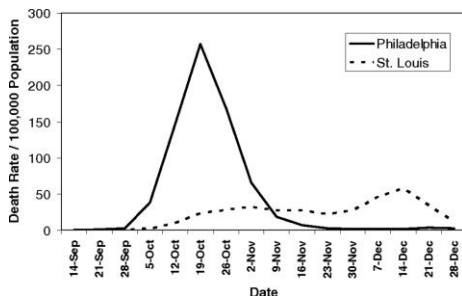
[“Biohazard: A Look at China’s Biological Capabilities and the Recent Coronavirus Outbreak,”](#) by Corey Pfluke

[“Air Force Reserve Officer Training Corps’ Response to COVID-19,”](#) by Cadet Drew T. Pownall



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said it would “take about a year to a year and a half to know if it really works.” The method we have moved onto is quarantine, or social distancing, giving the virus fewer chances to spread. One example of this in action is the 1918 Spanish Flu death rate in St. Louis and Philadelphia, where St. Louis went into lockdown quickly while Philadelphia went ahead with a parade. St. Louis officials’ response obviously flattened the curve much faster than was the case in Philadelphia.



(Image: National Academy of Sciences)

Figure 1. Excess P&I mortality over 1913–1917 baseline in Philadelphia and St. Louis, 8 September–28 December 1918.

Responding to virus outbreaks is critical when trying to contain it. World population researchers found that if Chinese officials responded three weeks earlier when they found the virus, the amount of cases would have been reduced by 95 percent. Becoming faster at containment is one approach that could help everywhere, including poorer countries that have fragile healthcare systems and cannot deal with pandemics like this.

A good way of being prepared for the next pandemic is knowing where it can come from. Researchers are aware of potential hotspots, where the next virus could show up. In these locations, things such as factory farming, wet markets, and deforestation are popular and are examples of ways the human population are bringing animals with the possible next virus closer to humans. With the world’s growing interconnectedness, through traveling, a virus can spread like wildfire, as we’ve seen with COVID-19. The scientific community is amazing at fighting the virus through testing and tracing of patients and the creating of vaccines and finding drugs that can help fight these pandemics. Our success in handling COVID-19 and subsequent pandemics is a matter of when the disease will hit and how we react to fighting it. Being more prepared and working together with other countries is the only way to fight these pandemics.

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