# Disappearance of influenza in 2020 proves eradication of SARS-CoV-2 and more is possible

**Benjamin Mateus and Norisa Diaz**
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One of the curious features of the COVID-19 pandemic has been the near complete disappearance of the seasonal flu across the globe. Flu seasons that have been so much a part of the fabric of modern social history have all but vanished.

To say the least, this is astounding. Yet, hardly a word has been said of it in the media. A review of the statistics is worth the effort.

In the United States, according to the Centers for Disease Control and Prevention (CDC), since September 27, 2020, out of over one million influenza tests, there were only 1,899 (0.2 percent) positive results (713 Influenza A and 1,186 Influenza B) during the 2020-2021 flu season. Of the only 600 deaths reported from influenza, there was only one flu-associated pediatric death.

To place the above statistics into stark relief, the CDC estimated that from 2010 to 2019, between 9 and 45 million people fell ill with the flu annually. Of these, 140,000 to 810,000 required hospitalization, while deaths ranged from 12,000 to 62,000 a year. The annual healthcare cost attributed to the flu has been estimated at over $10 billion. During the 2019-2020 season, there were over 34,000 deaths reported, of which 200 were children.

The impact of the measures aimed at COVID-19 was to reduce the US death toll from ordinary influenza from 34,000 to 600, a staggering 98 to 99 percent. Child deaths dropped from 200 to only one. If similar proportions, as estimated by the World Health Organization, apply to the annual world mortality from influenza, some 250,000 to 500,000 lives may have been saved in 2020.

This has not yet been documented, but may well be the case. In a report published on April 29, 2021 in the *Scientific American*, headlined, "Flu has disappeared worldwide during the COVID pandemic," every region across the globe, from North and South America to Oceania, has seen the near complete eradication of the influenza virus. Numerous doctors reported no longer sending specimens for testing, believing the flu was not circulating in the population.

On February 26, 2021, the WHO made its recommendation for the composition of the influenza virus vaccine in the 2021-2022 northern hemisphere influenza season: a quadrivalent vaccine against the H1N1, H3N2, B/Victoria and B/Yamagata strains, using the limited number of cases they analyzed.

Each year the WHO provides recommendations based on the antigenic drift that occurs in these viruses, necessitating a constant updating. As the *Scientific American* report noted, "With fewer virus particles circulating in the world, there is less chance of an upcoming mutation, so it is possible the 2021-2022 vaccine will prove extra effective."

**History of influenza epidemics and pandemics**

Influenza epidemics and pandemics have been present since human civilizations first began chronicling these natural events. The name of the viral infection, influenza, originated in the 15th century in Italy from an epidemic they attributed to the "influence of the stars." The first documented influenza pandemic occurred in 1510, beginning in East Asia and then spreading to North Africa and later Europe.

After 1700, with advances in science, technology and social organization, understanding of the flu grew incrementally. The first flu pandemic in the 18th century started in 1729 in Russia, spreading thereafter across the globe over a period of three years in distinct waves. There were at least four influenza pandemics in the 19th century, three in the 20th century, including the Spanish flu of 1918 that killed upwards of 50 million people, and one so far in the 21st century.

In 1931, an American virologist and naval officer by the name of Richard Edwin Shope and his mentor Paul A. Lewis were the first to isolate influenza virus A from pigs. By 1933, it was established that the virus was responsible for human influenza. Influenza B virus was discovered in 1940.

Soon after, with the support of the US Army, the first flu vaccine was developed, which was finally licensed in 1945 in the United States. But by 1947 investigators had determined that frequent changes in the antigenic composition of the virus rendered existing vaccines ineffective, requiring continuous surveillance and characterization of circulating viruses and annual modifications to the vaccines.

The World Health Organization was established a year later, with one of its initial major tasks being influenza research and surveillance. By 1952, the Global Influenza Surveillance and Response System (GISRS) was established to monitor the evolution of influenza viruses.

The flu seasons recur annually during the winter months of the affected hemisphere. In the United States, the season begins in October and lasts until May, reaching its highs in February. By comparison, the season begins in May in Australia, peaking in August and concluding in October. For other countries in the Southern Hemisphere—South Africa, Argentina, and Chile—the season begins later in June. The tropics and subtropics have more complex seasonality.

The disappearance of the flu is a remarkable thing for the possibilities it raises in the approach to respiratory pathogens. Public health measures, applied too inconsistently to eradicate COVID-19, did succeed in effectively eradicating the seasonal flu, at least in the United States. The half-million people who have died each year of influenza worldwide were all potentially avoidable deaths.

The example of influenza vindicates the principled scientists who have

been calling for the eradication of the coronavirus. If halfhearted measures could eliminate the flu, a full mobilization of social resources, with testing, contact tracing and social distancing, and a society-wide lockdown with full economic support for working families and small businesses, could have done the same for COVID-19. They could still do so yet, if the working class intervenes on the basis of this program.

As it is now, with vaccine administration beginning to stall in high-income nations, herd immunity through vaccination will most likely not be achievable. Left to their own devices, the ruling classes throughout the world will facilitate the coronavirus becoming endemic, just another virus that humanity has to learn to live and also die with, with appalling consequences.

**Influenza, an airborne virus**

It is indisputable that the limited measures employed to stem the tide of COVID-19 infections had an extraordinary impact in stopping the flu almost completely. This is because the coronavirus and influenza virus share the same mode of transmission. They are both airborne pathogens, despite the insistence to the contrary by various official national and international public health agencies that ignored the preponderance of evidence that has been published to date.

One of the first studies that documented airborne transmission of the flu was published in 1979, examining an outbreak that occurred on a commercial jet plane.

On the morning of March 14, 1977, an aircraft en route from Anchorage, Alaska to Kodiak, Alaska, was delayed on the ground in Homer (an intermediate stop) for three hours after an aborted takeoff due to engine failure. A 21-year-old female passenger who had boarded in Homer became acutely ill with the flu soon after boarding. There were five crew members and 49 other passengers waiting on the tarmac for repairs to be accomplished. The ventilation system on board was inoperative during the delay.

The next day several passengers reported to a physician with symptoms of severe respiratory syndrome that included high fevers, headaches, chills, and muscle aches. Two required hospitalization. The public health authorities were notified of the outbreak, and an investigation was commenced.

None of the passengers who had deplaned in Homer fell ill. Of the 53 passengers and crew aboard the grounded plane, 38 (72 percent) developed the flu within a day-and-a-half of their exposure. The attack rate was highest for those that spent the longest time on the plane. Of the 38 cases, 31 provided specimens for viral culture, of which eight were positive for the influenza A virus.

The authors of the study concluded that prolonged exposure to the index case, the young woman, in the setting of a non-functioning ventilation system, contributed to the high attack rate. They also surmised that large aerosols produced by the ill passenger may have contributed to the high number of infections.

In the last decade research has shown that the influenza virus is airborne and passed in closed spaces with shared air as an infected individual is able to spread contaminated particles throughout an area just by breathing.

In a *Nature* study published in June of 2013, titled, "Aerosol transmission is an important mode of influenza A virus spread," the authors found that influenza A virus via aerosol transmission in Hong Kong and Bangkok households was the predominant mode of transmission, accounting for approximately half of all new cases, "suggesting that influenza A virus transmission among household members may not be controlled by interventions against contact or droplet transmission."

Between 2012 and 2013 Dr. Donald Milton, professor of environmental health, and his research team at the University of Maryland School of Public Health took breath samples from 142 people infected with influenza virus. Using the Gesundheit II machine, their breath samples were taken while engaging in natural breathing, talking, coughing, and sneezing over three days. Milton's team found that those infected contaminated the air around them with infection by *just breathing.*

The watershed study and its findings proved that handwashing, surface cleaning, and covering coughs and sneezes, the usual methods for treating droplet-borne infections, were insufficient at preventing the spread of influenza. They determined that the influenza virus was airborne, and demonstrated that the only way to prevent the spread of the virus was to avoid public spaces and stay home.

Milton stated in a university news article, "People with flu generate infectious aerosols (tiny droplets that stay suspended in the air for a long time) even when they are not coughing, and especially during the first days of illness. So when someone is coming down with influenza, they should go home and not remain in the workplace and infect others."

"The study findings suggest that keeping surfaces clean, washing our hands all the time, and avoiding people who are coughing does not provide complete protection from getting the flu," said Sheryl Ehrman, dean of the Charles W. Davidson College of Engineering at San José State University. "Staying home and out of public spaces could make a difference in the spread of the influenza virus."

In 2018 her team published the often-cited paper *Infectious virus in exhaled breath of symptomatic seasonal influenza cases from a college community* in the Proceedings of the National Academy of Sciences (PNAS). The paper stated that, "We provide overwhelming evidence that humans generate infectious aerosols and quantitative data to improve mathematical models of transmission and public health interventions. We show that sneezing is rare and not important for—and that coughing is not required for—influenza virus aerosolization. Our findings, that upper and lower airway infection are independent and that fine-particle exhaled aerosols reflect infection in the lung, opened a pathway for a deeper understanding of the human biology of influenza infection and transmission."

The research was funded by the National Institute of Health (NIH) and the Centers for Disease Control and Prevention (CDC), the very agencies which took over 14 months to quietly acknowledge the airborne nature of SARS-CoV-2, after it had claimed over 3 million lives globally.

**Science should guide social policy**

Since the 1970s it has been documented in the highest scholarly journals that school-aged children are the most important vectors for community-wide transmission of influenza, with children aged 5-18 years suffering attack rates of 30-50 percent, the highest of any age group. They also shed viruses in greater quantities and for longer periods than adults. With every flu season, dozens or hundreds of children die. Children miss school and parents are often forced to find in-home care or stay home themselves. It is not without a sense of irony that the flu season begins and ends in conjunction with the school calendar.

Despite these findings, which are not news to any parent or educator, or to medical professionals, there have been no major efforts to upgrade ventilation systems and improve air quality for schools, classrooms or workplaces. Instead, the past 50 years have seen a widespread attack on public education. Crumbling infrastructure, increasing class sizes and dilapidated schools have become the norm, where indoor air quality is

deemed some of the worst.

One of the clearest proof-of-concept studies recently published came out of Taiwan. At an undisclosed university in the suburbs of Taipei, a TB outbreak involving 27 cases with 1,665 contacts in under-ventilated buildings was investigated. Knowing the pathogen was transmitted via aerosol, ventilation engineers worked to decrease the maximum level of CO2 allowed from 3,200 parts per million to 600. The secondary attack rate dropped to zero after a follow-up of six years. By improving ventilation to keep down levels of CO2, which is a proxy for air exchanges, there was a 97 percent decrease in TB infections, highlighting the critical importance of adequate indoor ventilation.

The research in the preceding 50 years and the 2020-2021 influenza season confirms that mankind has the ability to understand and eradicate a virus which has plagued the globe for 500 years and claims hundreds of thousands of deaths annually. Additionally, there has been a dramatic decline in childhood diseases such as chickenpox, various stomach viruses and strep throat. There is no disease or virus that the human race must "live with."

Frederick Engels, in his *Dialectics of Nature*, describes mankind's uniqueness in being able to understand and to control his environment. Inherent in this is an understanding of the social production in which humanity takes part and the necessity to rationally reorganize this production:

> Historical evolution makes such an organization daily more indispensable, but also with every day more possible. From it will date a new epoch of history, in which mankind itself, and with mankind all branches of its activity, and especially natural science, will experience an advance that will put everything preceding it in the deepest shade.

The only way for humanity to proceed forward, in light of the incalculable suffering and horrific human death toll which has not abated, is to throw down the gauntlet on the capitalist mode of production once and for all, which has prioritized the interests of a financial oligarchy and has sacrificed over 3.6 million people to a virus that mankind has all the scientific knowledge and advancements to rid itself of.

That the often-deadly influenza virus, which has plagued civilization for centuries, could so easily be vanquished should provoke us to ask, "What are the possibilities?" Humanity has only scratched the surface of what can be done. It is not lack of knowledge, but the capitalist system and the profit interests of the ruling class that stand in the way.