

The Pandemic of 1918

By Wylie McLallen

As the Great War in Europe came to an end in the fall of 1918, the Americans who had fought in the trenches with the Allies against Germany had lived through brutal conditions that could not have seemed worse. But earlier in the year, a virus began spreading that very briefly at first appeared no more dangerous than a common cold. The influenza of that season, however, was far more dangerous than a cold. A viral disease caused by a deadly strain of avian influenza, the 1918 Spanish Flu remains the most severe pandemic in modern history. In the two years that this scourge ravaged the earth, at least a fifth of the world's population was infected, almost half a billion people, with the death toll estimated as high as fifty million. It was first thought to be caused by bacteria, and the vaccines scientists tried to develop based upon this thinking were, of course, ineffectual. Scientists knew about viruses, but without powerful modern microscopes, a virus had not yet been seen, and with little known about the spread through droplets in one's breath, the Spanish Flu quickly circled the globe.

It spread in waves following the paths of its human carriers along trade routes and shipping lanes. Outbreaks swept through North America, Europe, Asia, Africa, Brazil, and the South Pacific; most of humanity felt the deadly effects of this respiratory virus. Although there is no universal consensus regarding the virus's origin, there is some thought that it originated in China in a rare genetic shift of the influenza virus. The recombination of its surface proteins created a virus novel to almost everyone and a loss of herd immunity. India had an exceptionally high mortality rate, with about five deaths per one-hundred people. The Great War, with its mass movements of young men in armies and aboard ships, aided the rapid diffusion and attack, creating an unusually high mortality rate among healthy young adults, a unique feature of the pandemic. As the colossal war raged with millions of young men packed together on ships and in trenches and on the fields, the spread of influenza on both sides caused more death than their weapons. The disease became known as the "Spanish Flu" because Spain, as a neutral country, did not impose wartime censorship, unlike the Allies and Central Powers, and so its newspapers reported in detail the grave effects of the epidemic and these widespread stories created a false impression that Spain was the epicenter.

The first wave of influenza in the United States appeared in military posts in the early spring of 1918. Though a sign of what was to come, amid a war, few paid any attention to these early outbreaks in the training camps. By the fall, when the death rate could no longer be ignored, this lack of initial action was criticized. Of the U.S. soldiers who died in Europe, half of them fell to the flu virus rather than the enemy. Returning soldiers coming together brought the

virus with them and to those they contacted, creating a second wave of the epidemic, this time infecting civilians, killing almost 200,000 Americans in October of 1918 alone. At the end of the war, November 11, 1918, as people celebrated Armistice Day with parades and large parties, an even greater rebirth of the epidemic occurred in some cities, infecting millions of people that winter with the flu. An estimated 675,000 Americans died of influenza during the pandemic, ten times as many as in the world war.

Hospital facilities and staff were stretched to the limit. There was a shortage of physicians, many lost in military service, and many lost to the epidemic, leaving mostly medical students to care for the sick. The Red Cross created a National Committee on Influenza to mobilize all forces to fight the Spanish Flu. Emergency hospitals were created. In some areas of the country, the nursing shortage was so acute that local businesses were asked to allow workers a day off if they volunteered in the hospitals at night. A nurse serving at the Naval Hospital in Great Lakes, Illinois, described what happened there and in many hospitals around the country: "The morgues were packed almost to the ceiling with bodies stacked one on top of another. The morticians worked day and night. You could never turn around without seeing a big red truck loaded with caskets for the train station so bodies could be sent home. We didn't have time to treat them. We didn't take temperatures; we didn't even have time to take blood pressure. We would give them a little hot whiskey toddy; that's about all we had time to do. They would have terrific nosebleeds with it. Sometimes the blood would just shoot across the room. You had to get out of the way, or someone's nose would bleed all over you." The "new sciences" of infectious agents and

immunology raced to come up with a vaccine or therapy to stop the rapid, deadly spread.

The first symptoms would come on suddenly, sharp debilitating pain in the back or joints followed by dizziness and fever and chills, then the onset of pneumonia, and with no antibiotics yet to ward it off, the skin would likely turn blue as it went cyanotic. Finally, when the lungs filled with enough fluid, a patient would drown in their bed. There are stories of people on their way to work suddenly becoming sick and dying within hours. One physician wrote that patients would rapidly “develop the most vicious type of pneumonia that has ever been seen,” and later, “it is simply a struggle for air until they suffocate.” Physicians were helpless. Bodies piled up as the massive deaths ensued. Besides the lack of healthcare workers and medical supplies, there was a shortage of coffins, morticians, and gravediggers. With no vaccine to protect against influenza infection and no antibiotics to treat secondary bacterial infections that can be associated with influenza infections, control efforts worldwide were limited to non-pharmaceutical interventions such as isolation, quarantine, good personal hygiene, use of disinfectants, and limitations of public gatherings, which were applied unevenly.

Those lucky enough to avoid infection had to deal with public ordinances to restrain the spread of the disease. As people had submitted to the strict measures and loss of freedom during the war, they accepted the new theories the medical and scientific communities applied to the prevention, diagnostics, and treatment of influenza. In the absence of a vaccine, public health interventions were the first line of defense. These measures included closing schools, shops, and restaurants, restrictions on transportation,

mandating physical distancing, and banning public gatherings. Getting citizens to comply with these orders was difficult; a health officer in San Francisco shot three people when one refused to wear a mandatory face mask, in Arizona, police handed out \$10 fines to those caught without protective gear; but eventually, these measures paid off. Implementing strict closures and controls on public gatherings in major cities cut transmission rates by 30 to 50 percent. New York City, which reacted earliest to the crisis with mandatory quarantines and staggered business hours, experienced the lowest death rate on the Eastern Seaboard. This allowed time for vaccine development and lessened the strain on health care systems. But relaxing intervention measures too early could cause an otherwise stabilized city to relapse. St. Louis was so emboldened by its low death rate that restrictions were lifted on public gathering, and a rash of new cases soon followed. Cities that kept restrictions in place did not experience high death rates in a second wave of the epidemic. Studies then found that the key to flattening the curve was physical distancing, which likely remains true a century later in the current battle against coronavirus.

A third less-lethal wave followed in January 1919, ending in the spring. One particular case would have an extraordinary impact on history. On April 3, 1919, during the Versailles Peace Conference, Woodrow Wilson collapsed. His sudden weakness and severe confusion halfway through that conference—widely commented upon—very possibly contributed to his abandoning the peacetime principles of his Fourteen Point address. The result was the disastrous peace treaty, which, within a generation, would contribute to the start of World War II. Some historians have attributed

Wilson's confusion to a minor stroke. In fact, he had a 103-degree temperature, intense coughing fits, diarrhea, and other severe symptoms. A stroke explains none of the symptoms. Influenza, which was then widespread in Paris and killed a young aide to Wilson, explains all of them—including his confusion. Experts would later agree that many patients afflicted by the pandemic influenza had cognitive or psychological symptoms. As an authoritative 1927 medical review concluded, "There is no doubt that the neuropsychiatric effects of influenza are profound . . . hardly second to its effect on the respiratory system."

Scientists and other experts are still asking questions about the virus and the devastation it caused, including why the second wave was so much more lethal than the first. Some argue that the first wave was caused by an ordinary seasonal influenza virus that was different from the pandemic virus; but the evidence seems overwhelming that the pandemic virus had both a mild and virulent form, causing mild as well as severe outbreaks, and then, for reasons that remain unclear, the virulent form of the virus became more common. After that third wave, the 1918 virus did not go away, but it did lose its extraordinary lethality, partly because many human immune systems now recognized it and partly because it lost the ability to easily invade the lungs. No longer a bloodthirsty murderer, it evolved into seasonal influenza.

Since 1918, there have been several other influenza pandemics, although none as deadly. A flu pandemic from 1957 to 1958 killed around 2 million people worldwide, including some 70,000 people in the United States, and a pandemic from 1968 to 1969 killed approximately 1 million people, including some 34,000 Americans.

The current COVID-19 pandemic is a deadly and frightening scourge, but this time we know a lot more about viruses and how to curb their spread.

[Sources]

Editors, www.cdc.gov/flu/pandemic-resources/1918-pandemic.

Editors, Spanish Flu, History.com.

Editors, Spanish Flu: the deadliest pandemic in history, www.livescience.com.

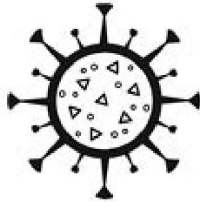
John M. Barry, *The New York Times*, March 17, 2020, The single most important lesson from the 1918 Influenza.

Molly Billings, *The Influenza Pandemic of 1918*, Stanford University.

Nina Storchlic and Riley D. Campine, *National Geographic*, How some cities 'flattened the curve' during the 1918 flu pandemic.

[About the Author]

Wylie McLallen grew up in Memphis, Tennessee. He studied fiction and composition at the University of Tennessee under Robert Drake, who was a close friend of author Flannery O'Connor. He is the author of *Tigers by the River*, a history of early pro football published by The Sunbury Press.



Public Health, Civil Liberties, and Life After the Pandemic

By Scott Zuckerman, M.D.

The world has changed. It has changed abruptly, dramatically, and with little warning, and it is probably going to stay changed in ways we can hardly imagine. Unquestionably, the field of medicine will never be the same. Some of the transformations that occur as a result of the coronavirus pandemic could be for the betterment of public health, while some will be to its detriment. Depending on one's vantage point, the distinction between help and hindrance may be a shade of gray. Since the situation in which we find ourselves is unprecedented during human history, any speculation about how the future will look is based on mere guesswork, rather than on scientific evidence or factual data. The collective populace may have the opportunity to shape some outcomes, while other consequences will be inescapable. In the words of the late Joe Strummer, "The future is unwritten."

In 1755, Benjamin Franklin wrote, "Those who would give up essential liberty, to purchase a little temporary safety, deserve neither liberty nor safety." To slow the spread of coronavirus, civil

liberties have been broadly curtailed to a degree never seen in the United States. Gatherings—whether for religious or social purposes—have been restricted. Businesses have been forced to close, and for some, those closures may prove permanent. Individuals have been stopped and questioned for screening at state borders. Access to national and state parks has been denied. Curfews have been imposed. Perhaps these measures were indeed necessary to limit the transmission of the disease and thereby reduce the ultimate number of casualties. Perhaps. But most of these decisions were made without the usually requisite objective proof of their value and the approval of Congress or even local representative governing bodies.

This is not to suggest that these plans were inherently wrong. But it is a slippery slope to authorize set rules only because it seems like a good idea, without adequate verification that the outcome will be a positive one, especially when those rules are not without consequences. For example, in 1942, many individuals in the United States might have agreed that it seemed like a good idea—for the sake of national security—to confine American citizens of Japanese descent in isolated camps, denying those individuals their civil rights. But today, we can look back on that decision and accurately describe it as one of the most egregious mistakes of the twentieth century. I am in no way suggesting that the restrictions pertaining to the control of the coronavirus are as pernicious as the internment of over one hundred thousand innocent Japanese-Americans; to do so would be demeaning to their experience and blind to the overt racism that prevailed during that dark chapter. But in a country that has historically valued liberty over all other considerations (“Give me liberty or give me death!”), it has been interesting to witness the

widespread acceptance of these drastic limitations, with little—if any—protest or rebellion.

So how does this pertain to the field of medicine? There have been many instances when the objective of improving the overall health of the population has come in direct conflict with the inclination to preserve liberty—however it is defined—no matter what the cost. Often, the pursuit of liberty has trumped the ambition of improving the well-being of the community. One very recent—and highly publicized—example of this is the debate over vaccinations. The development of vaccines is one of the greatest achievements in the history of medicine. Anyone who would argue against this statement needs to be educated regarding infectious diseases such as polio, diphtheria, and smallpox, which inflicted and killed millions of people before effective vaccines were developed.

The facts are, however, that no vaccine is one hundred percent effective, and no vaccine is without (rare) adverse side effects. To eliminate a disease, therefore, all members of the population must receive the vaccine, creating what is referred to as “herd immunity.” The eradication of smallpox from the world population in the 1970s is a perfect illustration of how universal vaccination can succeed. Today, medical professionals are in direct conflict with so-called “anti-vaxxers,” who refuse to vaccinate their children because of religious reasons, or because they’ve been coerced by a fraudulent study—conducted by a physician who has since been discredited—that erroneously linked measles, mumps, rubella (MMR) vaccine to autism. And for the most part, these misguided, selfish individuals have been allowed the liberty to refrain from vaccinating their children, thereby endangering the health of all persons with whom

they come in contact. The result has been a resurgence in the incidence of measles—which had been virtually eliminated from the United States by 1980. The virus that causes measles, while far less deadly than the coronavirus, is known to be considerably more contagious. According to the World Health Organization, there were over 140,000 deaths from measles globally in 2018.

So now that a precedent has been established during the coronavirus pandemic, will the recommendations of medical scientists consistently override certain aspects of “freedom of religion” to preserve the health of the general population? It seems likely that if an effective, safe vaccine against coronavirus is developed, the government will mandate that every eligible individual receives it. Time will tell. From my perspective, as a pediatrician, this would be a good outcome, not just for this disease, but for all infectious diseases, past and present.

Our understanding of the specific epidemiology of COVID-19 might give rise to some positive changes as well. It would seem, at least given the available data so far, that individuals with certain chronic conditions who become infected with coronavirus are at far higher risk for developing severe symptoms and dying. The list includes diabetes, hypertension, cardiovascular disease, and chronic pulmonary disease. Will the dramatic increase in mortality due to coronavirus in association with these mostly preventable conditions finally convince the general public to adopt lifestyle changes that are clearly in their best interest? Eat less and exercise more? Eat more fruits and vegetables—and real food in general—instead of high-fat, high-carbohydrate processed food whose ingredients are unrecognizable? Give up smoking? There is some recent evidence

that long-term exposure to airborne pollutants also increases the risk of an adverse outcome from COVID-19. So, will that association prompt some aggressive momentum toward cleaning the air which we breathe?

One would hope that everyone will recognize their responsibilities and take ownership of their health and well-being. While that has not usually proven to be the case, past attempts to legislate issues such as obesity and diabetes—a prime example being the short-lived New York City ban on jumbo sodas in 2012—have proven to be ill-conceived and poorly received. Of course, the battle against the use of tobacco has been much more effective, with various forms of legislation contributing to a fifty percent reduction in cigarette smoking over the past half-century. One glaring difference between these two issues—and this pertains to the vaccine discussion as well—is that smoking a cigarette has a substantial effect on those around you, while that is not necessarily so with regard to drinking a one-liter cup of Coca-Cola (unless you happen to be sitting next to that individual on an airplane.)

The elderly seem to be at risk for more severe coronavirus sequelae than younger individuals. Throughout the world, there have been tragic instances of the infection spreading through nursing homes and causing devastation not only to the inhabitants but also to the staff. As the youngest Baby Boomers in the United States are now turning sixty, and the population grows older with each passing year, will this pandemic result in a change in how our society treats older folks? Will we return to the old way of caring for our elders at home rather than institutionalizing them? For those who reside in such facilities out of necessity, will health insurance finally cover the

associated expenses, raising the quality of care in the process? Will appropriate value finally be given to the most enduring—and often the most vulnerable—members of our society?

I know I have posed more questions than I have provided answers. But as much as I would like to be optimistic about mankind's response to this situation, my pessimistic nature—cemented in place by my life-long observation of human behavior—makes me unsure that people will ever collectively choose to do the right thing. After all, in 2020, faced with a respiratory virus that causes respiratory symptoms, the primary motivation of the population at large seems to have become an irrational quest to stockpile toilet paper.

[About the Author]

Dr. Scott Zuckerman *has been practicing medicine for over thirty years. He has been board-certified in pediatrics, pediatric emergency medicine, and medical acupuncture. His high school English teacher, Frank McCourt—who would later win a Pulitzer Prize for his memoir, Angela's Ashes—inscribed in his yearbook, "You have displayed the writer's gift. Cultivate it." Forty years later, Zuckerman heeded McCourt's advice. His first book, Dreams of My Comrades, was awarded first place in the nonfiction category of the 2015 Utah Original Writing Competition, and was published in 2017 by Sunbury Press.*

Iniciado em	segunda, 30 nov 2020, 17:48
Estado	Finalizada
Concluída em	segunda, 30 nov 2020, 17:49
Tempo empregado	28 segundos

Questão **1**

Não respondido

Vale 1,00 ponto(s).

Em 1918, a humanidade passou pela pandemia denominada Gripe Espanhola.

“A viral disease caused by a deadly strain of avian influenza, the 1918 Spanish Flu remains the most severe pandemic in modern history.” (MCLALLEN, 2020, p. 24)

Considere a informação apresentada no texto de McLallen sobre a Gripe Espanhola e escolha a alternativa correta:

Escolha uma opção:

- ☐ Esse vírus tinha uma alta taxa de mortalidade dependendo dos grupos étnicos que afetava por causa de sua mudança genética.
- ☐ As notícias sobre a gripe espanhola bastante divulgadas nos jornais espanhóis foram consideradas falsas posteriormente.
- ☐ O número de mortes causadas pela gripe espanhola foi superior ao número de mortes causadas pela Grande Guerra.
- ☐ A gripe espanhola se espalhou principalmente por causa de navios mercantes que transportavam o vírus para outros países.
- ☐ As vacinas contra a gripe espanhola foram ineficazes porque se pensava que o vírus se espalhava apenas pela respiração.

Questão **2**

Não respondido

Vale 1,00 ponto(s).

Considere as informações presentes no primeiro texto (MCLALLEN, 2020) e escolha a alternativa que completa a frase:

A Influenza Espanhola impôs ao mundo como seu maior obstáculo _____

Escolha uma opção:

- ☐ o comportamento dos cidadãos durante a quarentena.
- ☐ a imprecisão dos diagnósticos da doença.
- ☐ as negociações de paz da Grande Guerra.
- ☐ o retorno dos soldados para casa após a Grande Guerra.
- ☐ o índice de fatalidades da terceira onda da Gripe.

Questão **3**

Não respondido

Vale 1,00 ponto(s).

Qual a postura do autor do segundo texto (ZUCKERMAN, 2020) perante a vacinação da população contra a COVID-19?

Escolha uma opção:

- ☐ As pessoas deveriam ser vacinadas apenas quando o desejassem, respeitadas as suas crenças.
- ☐ A vacinação deveria ser obrigatória a todas as pessoas, independente de crença ou convicções.
- ☐ Os indivíduos contrários à vacinação deveriam comprovar a veracidade de estudos sobre a sua ineficácia.
- ☐ As pessoas com autismo deveriam evitar a vacinação por conta de efeitos colaterais.
- ☐ Os imigrantes deveriam evitar a vacinação até sua devida regularização no país.

Questão **4**

Não respondido

Vale 1,00 ponto(s).

De acordo com Zuckerman (2020, p. 79):

“The world has changed. It has changed abruptly, dramatically, and with little warning, and it is probably going to stay changed in ways we can hardly imagine. Unquestionably, the field of medicine will never be the same. Some of the transformations that occur as a result of the coronavirus pandemic could be for the betterment of public health, while some will be to its detriment.”

O autor do segundo texto apresenta alguns cenários possíveis a partir da experiência com a pandemia COVID-19. Assinale a alternativa que apresenta resultados possíveis e positivos mencionados pelo autor:

Escolha uma opção:

- ☐ praticar mais exercícios, comer menos comida processada, cuidar dos idosos em casa.
- ☐ combater o tabagismo, aumentar o espaço entre as poltronas nos aviões, aumentar o atendimento do seguro-saúde.
- ☐ comer mais frutas e vegetais, diminuir o consumo de cigarros em 50%, banir a venda de refrigerantes.
- ☐ adotar um estilo de vida mais saudável, valorizar socialmente os idosos, criar uma vacina 100% efetiva.
- ☐ melhorar a qualidade do cuidado ao idoso, proibir o uso de cigarros, diminuir as sequelas causadas pelo coronavírus.

Questão **5**

Não respondido

Vale 2,00 ponto(s).

No primeiro texto (MCLALLEN, 2020), o autor menciona um caso com impacto histórico importante. Descreva em que medida o contágio do presidente americano Woodrow Wilson afetou a Conferência de Paz de Versalhes.

Questão **6**

Não respondido

Vale 2,00 ponto(s).

Baseando-se no segundo texto (ZUCKERMAN, 2020), explique o posicionamento do autor ao relacionar o estado atual de imposição de regras restritivas no contexto da pandemia COVID-19 e o que foi imposto à comunidade nipo-americana nos anos 40.

Questão **7**

Não respondido

Vale 2,00 ponto(s).

Os dois textos descrevem sobre pandemias, a pandemia de 1918 (primeiro texto) e a pandemia de 2019 (segundo texto).

“In the absence of a vaccine, public health interventions were the first line of defense. These measures included closing schools, shops, and restaurants, restrictions on transportation, mandating physical distancing, and banning public gatherings.” (MCLALLEN, 2020, p. 27-28)

“To slow the spread of coronavirus, civil liberties have been broadly curtailed to a degree never seen in the United States. Gatherings—whether for religious or social purposes — have been restricted. Businesses have been forced to close, and for some, those closures may prove permanent. Individuals have been stopped and questioned for screening at state borders. Access to national and state parks has been denied. Curfews have been imposed.” (ZUCKERMAN, 2020, p. 79-80)

Compare e contraste a posição dos dois autores sobre as medidas de contenção em comum às duas pandemias, ilustrando com os argumentos dos autores para defender sua posição.

◀ TEXTOS-BASE

Seguir para...

Dicionário inglês/português ▶

