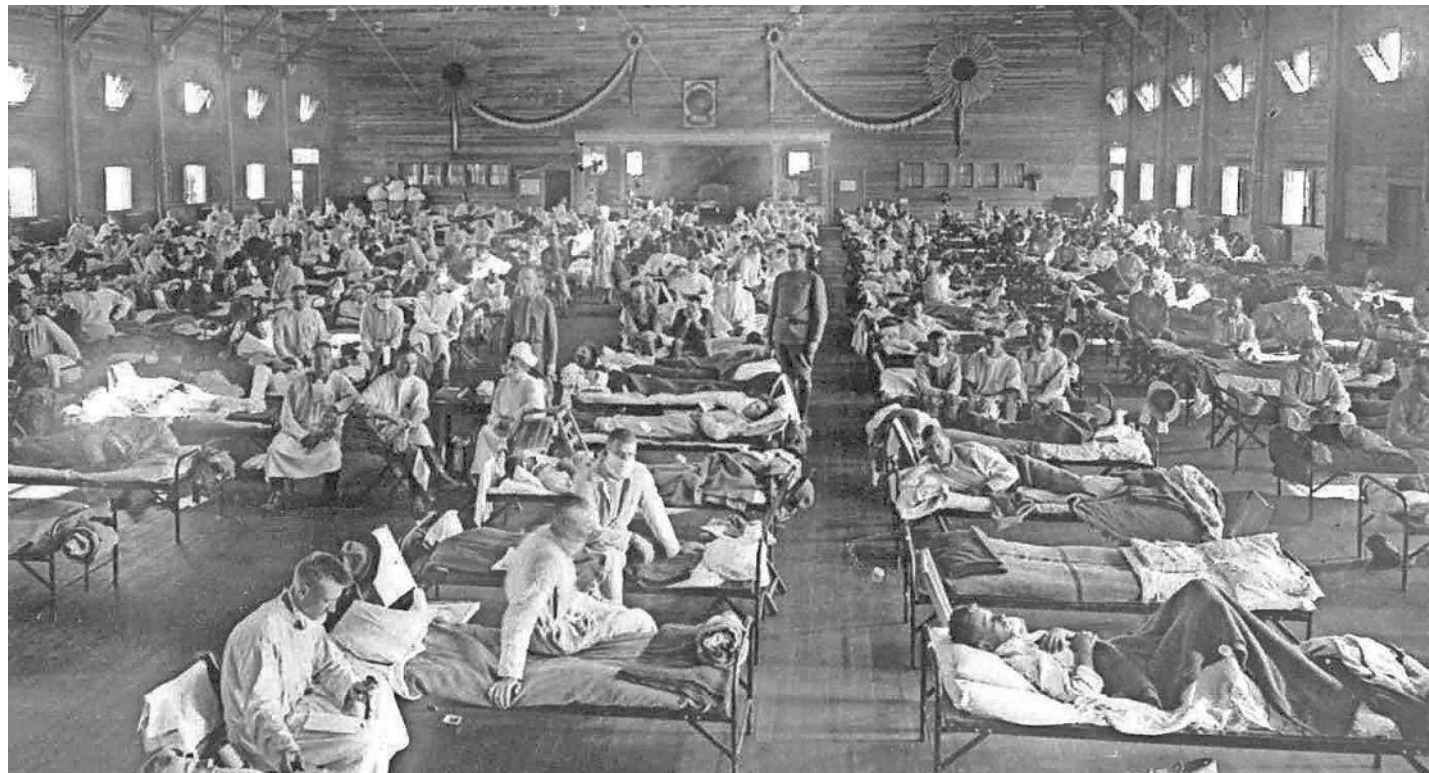


# History tells a story about how pandemic could change us



**Influenza victims crowd into an emergency hospital near Fort Riley, Kan., in this 1918 file photo. The 1918 Spanish flu pandemic killed at least 20 million people worldwide. Officials say if the next pandemic resembles the 1918 Spanish flu, 1.9 million Americans could die.** NATIONAL MUSEUM OF HEALTH/AP

## Your Turn

Robert S. Pozner  
Guest columnist

I think that most of us would agree that the world has gone crazy, with stores and restaurants closed and schools, sports events and shows cancelled and the full economic impact yet to be defined.

COVID-19 is a word that did not even exist before January, 2020, yet the effect is so amazingly far reaching that we will likely now separate the world into Pre-COVID-19 and Post-COVID-19 time periods. And if I referred to terms such as social distancing, ventilators, hand washing and facial masks you would think I am obviously talking about COVID-19.

But there is another pandemic that existed of which many of us are not even aware - the 1918 Spanish Flu Pandemic. Actually originating in America and running for two years and coming in three waves starting in 1917 with the

more deadly waves reaching into 1919, it has been estimated that 500 million people worldwide were infected, with worldwide estimations of from 50 to 100 million people dying.

There were 675,000 “excess deaths” in the United States alone (deaths attributed only to the Pandemic beyond the normal death rate) and adjusting that number to the current US population defines an equivalent “excess deaths” rate today of about 1.75 million deaths!!

Another tragedy is the deaths seemed to focus on the healthy young adult population who were called “doubly dead in that they died so young”. And 99% of the dead were less than 65 years old. The 1918 Spanish Flu Pandemic “killed more people in a year than the Black Death of the Middle Ages killed in a century; it killed more people in twenty-four weeks than AIDS has killed in twenty-four years.”

The medical world of 1918 was able to identify bacterial and viral causes of

disease and worked with vaccines and antisera, but antibiotics were yet to be discovered, ventilators would not be available for another 20 years and intravenous fluids were not available to treat dehydration.

The most effective available deterrents in 1918 were social distancing, hand washing and masks and just like today, they infused convalescent serum of antibodies from patients who had survived the disease. Schools, businesses and churches were closed.

Sound familiar? Focused on World War I, the federal response was woefully inadequate and death was present in almost every home.

I am personally interested in this history, not only as a physician, but because my Grandparents, my father’s mother and father, both died within four days of each other in the 1918 Flu Pandemic. This obviously had catastrophic consequences on my then three year old father and his 7-week-old sister and the subsequent family. New York City alone

had 21,000 orphans. Lives were dramatically changed then and are being dramatically changed now.

Understand that in an attempt to compare one illness to another, we are making gross generalizations and the numbers could be debated. In general, the yearly Influenza has a Mortality Rate of about 0.4%, this COVID-19 has a mortality rate of about 4%, and the Spanish Flu had a mortality rate of about 10%.

So out of one thousand patients, 4 would statistically be expected to die with yearly Influenza, 40 would die with COVID-19 and 100 would die with Spanish Flu. With the lack of necessary testing all of our current data is suspect and therefore this is like comparing apples to bananas since they are so different, but it gives you a relative understanding and a starting place for discussion.

It is yet to be defined how effective our use of social distancing and masks will have been, and how the relaxation of the social distancing will progress. Unfortunately, the benefits of social distancing are compromised when large groups of people gather together which is too much interaction to break the chain of infection. Too early or aggressive a relaxation could lead to a second wave of new cases and deaths—and it was the second and third waves of Spanish Flu that were the most deadly.

Our hope is that appropriate testing and a vaccine will ultimately be developed. I suspect our more effective social distancing than in 1918 will be proven to have significant benefit.

So understand that there is a precedent to our current crazy world and we can learn from it. We have social distancing and the use of masks as did our Grandparents, as well now of IV fluids and Ventilators and we need to use all this to our maximal advantage. We also have all the ongoing current research.

We will make it through all this and return to a new normal.

The final and probably most important point for the future will be preparation - to have the testing, PPE’s and Ventilators we will need so we are ready for any further COVID-19 outbreaks, or other new viruses. My hope is this information has stimulated your interest in medical history as well as given you useful information about COVID-19. Stay healthy and help keep everyone else healthy!

*Robert S. Pozner M.D., had a private practice of internal medicine in Asheville from 1987-2009. He enjoys researching and understanding the history of medicine.*

## Small species play big role in Great Smokies



**Your Turn**  
Frances Figart  
Guest columnist

As Great Smoky Mountains National Park begins to resume its operations in phases over the next few weeks, people are encouraged to avoid crowded areas, maintain social distancing, and follow many other new guidelines for keeping employees, volunteers, and visitors safe.

While we humans are adjusting to the new normal — and hoping to spot iconic megafauna like bear and elk — it’s business as usual for the other 20,389 species of living things that make the park their home. How do we know there are exactly that many?

“That number is only temporary,” says Todd Witcher. “We add new records to our list every month and, now that researchers can resume some of the work they were doing before the park closed, it will increase very soon.”

Witcher is the executive director for Discover Life in America — DLiA for short. He and his team coordinate the All Taxa Biodiversity Inventory, a groundbreaking effort that began 22 years ago to identify and try to understand every species living within the park. It is estimated there could be as many as 80,000!

Some plants, insects, fish and amphibians exist only in the Southern Appalachian Mountains. Because the Smokies has been above sea level and escaped glaciation for millions of years, it has the perfect conditions to support biodiversity — including the best old-growth watersheds in the eastern U.S.

“Most of the 20,000+ species that reside in GSMNP are lifeforms you wouldn’t notice on a casual hike unless you were looking very, very closely,” says Emma DuFort, publications specialist with Great Smoky Mountains Association. “The important ecosystem services these beetles, algae, mites, lichens, and others perform enable the web of life on which charismatic species

like bear and elk ultimately depend.”

DuFort visited the Smokies as a child and returned to live and work here as an adult. She’s taken a special interest in what conservationist E.O. Wilson calls “the little things that run the world.” So much so that she worked with DLiA to create an award-winning perpetual calendar showing one Smokies species for each day of the year.

“What we’ve learned through conducting the All Taxa Biodiversity Inventory in the Smokies has been remarkable,” said NPS entomologist Becky Nichols. “We are learning about species’ distributions, preferred habitats, and relationships with each other. All of this information helps us gain a better understanding of how our ecosystem truly is dependent on biodiversity.”

Some of the world’s leading scientists have contributed to the ATBI, along with park staff, educators, and volunteer citizen scientists. Together they have found 9,718 species new to the park and 1,025 species completely new to science! Researching these little-studied

life forms not only helps park leaders make better management decisions, it could also hold the key to the next medical breakthrough.

“Nearly half of the drugs that benefit humans are derived from nature’s medicine chest,” Witcher says. “One of the many reasons DLiA was founded was to find new species that may contain qualities that benefit humankind.”

### Resources to check out

■ Learn about DLiA’s ongoing research at [dlii.org](http://dlii.org).

■ Families and classrooms learn about DLiA through the Smokies Species-a-Day perpetual calendar, found at [Smokiesinformation.org](http://Smokiesinformation.org).

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## Our new normal should include bikes, walkability

### Your Turn

Mike Sule and Rebecca Chaplin  
Guest columnists

The COVID-19 pandemic has shuttered just about every public institution throughout the United States.

In North Carolina, businesses, schools, parks, and events remain closed as the public responds to the need for social distancing in order to “flatten the curve” and slow the spread of the virus. Social distancing is working and should continue, but we should not confuse social distancing with social “isolation.”

They aren’t the same.

There is a real need for people to get outside, enjoy the spring air, and relax or exercise. The Center for Disease Con-

trol also recommends physical activity as a way to cope with the stress of the pandemic.

There is a real opportunity before us in the public right of way. Let’s transition our streets to provide space for people to bike and walk at safe social distances. In the fall of 2018, the Street Tweaks Team, a partnership between AARP, Asheville on Bikes, and Blue Ridge Bicycle Club, launched their first quick build project to redesign Coxe Avenue in downtown Asheville. This project demonstrated how the safety of pedestrians and bicyclists can be improved by providing them more of the public right of way.

The corridor study reported impressive results: 32.7% of pedestrians reported feeling “much safer” on the corri-

dor following the redesign. Average vehicular speeds were reduced by nearly 30% with no impact on vehicular throughput. And 37.9% of motorist reported “no impact” while 23% of motorists reported “brief delays” regarding their drive time on the corridor.

The Coxe Avenue project demonstrates that the public right of way can transition quickly to accommodate the needs of pedestrians and bicyclists with little impact to motorists. A past success leaves clues for future innovations. If public utilities are underutilized explore ways to maximize them.

During the pandemic political leaders, health departments, and transportation departments should consider addressing the public need for exercise and relaxation by establishing quick

build pedestrian and bicyclists networks throughout our community in the public right of way. Consider that vehicular miles traveled (VMT) is down 70% in Buncombe County since the outbreak as reported by Street Light Data and that the current conditions make it impossible to follow the CDC guidelines for social distancing in any place where two pedestrians cannot pass on a sidewalk and remain 6 feet apart from each other.

Our roads are currently an underutilized public asset that could provide citizens a healthy outdoors reprieve that adheres to social distance requirements with marginal design tweaks.

Let’s explore this option. Our world is changing and we must change with it. Let’s maximize the public right of way to serve the public good.