

## A LOST HISTORY

### WRITING THE INFLUENZA EPIDEMIC IN PENNSYLVANIA, 1918–1922

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**ABSTRACT:** The one-hundredth anniversary of the influenza pandemic offers scholars, teachers, and students an opportunity to explore the history of Pennsylvania's epidemic experience through easily accessible local records. This brief historiography of Pennsylvania-related source material aims to encourage new research and facilitate a more detailed analysis of the epidemic in the Commonwealth.

**KEYWORDS:** Influenza, epidemic, World War I, Pennsylvania, public health

Just over 100 years ago, a remarkable chain of events began in China and ended as a lethal worldwide pandemic. Sometime in 1917 or early 1918, an avian influenza virus moved from birds to human beings and began to spread. The outbreak passed unnoticed by all but a handful of physicians and health inspectors in China. By the spring of 1918 the virus had jumped to North America and Europe and though it sickened increasing numbers of people, deaths remained relatively low. Over the course of the summer the character of the virus changed. Infections grew more acute. Deaths became more numerous. Still, it managed to remain unrecognized as anything more than a normal illness. In spring of 1918 citizens of Pennsylvania failed to note anything out of the ordinary. Public health physicians in Philadelphia blamed record rates of pneumonia on wartime housing shortages, poor sanitation, and an influx of southern African Americans laborers unused to cold weather.

In August 1918 the virus finally revealed itself. It exploded simultaneously on three continents. The first sustained outbreak occurred in Freetown, Sierra Leone, on August 14, when a British auxiliary warship filled with sick crewmen docked, transferred the virus to the civilian population, and spread the disease to Africa. A week later, August 22, American servicemen fell ill

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in Brest, France. On August 27 sailors in a naval base in Boston Harbor reported sick with the flu as well. Within days, thousands of sailors were ill, the city's population was infected, and people carried the virus throughout North America. Physicians in the Philadelphia Navy Yard noted several cases of acute, influenza-like illness during the last week of August. Though the epidemic lasted several years, most of the deaths occurred during the last four months of 1918 and the first three months of 1919. In Pennsylvania, as in the rest of the country, and probably the world, October was the worst month, the month that had more deaths than any thirty-day period in history.<sup>1</sup> A global pandemic that would kill more than 50 million people before finally sputtering out in 1922 was well under way.

I have studied the great influenza pandemic for almost twenty years. The pandemic, especially its impact on Pennsylvania, continues to captivate me. As a young student earning my master's degree, I found that the epidemic in Pittsburgh unlocked many intellectual doors; the University of Pittsburgh Archives Service Center granted me permission to open hundreds of coroners' reports sealed for decades and to read about the thousands of lives and deaths represented in those reports. As a doctoral student, I discovered a small cache of photographs taken by a seminarian in Philadelphia in 1918 as he and his classmates buried thousands in mass graves, the coffins and plain boxes stacked in sheds and horse stables. I then walked the long rows in Holy Cross Cemetery where the unidentified seminarian and his friends had buried the dead nine decades earlier. In the Allentown Fairgrounds, many of the same buildings that housed an Army camp in 1918 still exist. Its mortality rate was the lowest in the nation because of timely isolation measures, and on a still day one can almost see the empty grandstands of the fairground's race-course once again crowded with soldiers who set their cots on the benches.

A few miles away in Bethlehem, the remnants of the steel furnaces that bore the town's name continue their vigil along the Lehigh River, their importance to the war effort the only reason an otherwise ordinary mill town erected the most stringent quarantine measures in the state, possibly the country, and in the event came as near as any community could to calling its fight against the flu a success. In recent years, the Crossroads region of South Texas has provided me ample opportunity to study the epidemic's history in rural communities whose African American and Hispanic citizens faced it burdened with the twin threats of poverty and Jim Crow. The influenza epidemic, then, has shaped my career and my life.

I remain astonished at the paucity of ink spilled by historians over its worst modern disease catastrophe. Statistics show some of the epidemic's cost in America: up to a million deaths, at least a third of the population reported as ill, and the shuttering of large sections of the economy for weeks. These facts should pique the interest of all historians of the period, but they rarely do. Pennsylvania and its communities experienced an especially violent epidemic; with more than 60,000 dead, the commonwealth lost more lives than any other state. Furthermore, the three worst-hit major cities in America were Pittsburgh, Scranton, and Philadelphia. It was not coincidence that so many deaths occurred in one state and its three largest cities. Instead, the coal mines and steel mills that compromised the respiratory health of so many, to say nothing of the deplorable standards of living tolerated by the state in the coal patches and mill towns, added strength to an attack by history's most virulent influenza virus.

Statistics about the enormity of Pennsylvania's losses only quantify loss. It is left to the historian to translate those losses into a coherent human narrative. Scholars of early twentieth-century Pennsylvania history should include the influenza epidemic in their interpretations of the period and in their classrooms. Indeed, with the exceptions of Johnstown—which suffered more deaths during its great flood in 1889 than from the flu—and Philadelphia, whose loss of life during the 1793 yellow fever epidemic amounted to 15 percent of its population, the flu in autumn 1918 caused the greatest loss of life experienced by every single Pennsylvania community. To place those numbers in some sort of perspective, during just the last three months of 1918 and the first three months of 1919, the epidemic killed more Pennsylvanians than were lost during the two world wars and the conflicts in Korea, Vietnam, Afghanistan, and Iraq combined.

Why did such a monumental loss of life seem to have so little role in the lives of those who lived through it and so little impact on American history? Certainly, the Great War reduced the prominence of the epidemic in our history. The deaths of tens of thousands of American soldiers in Europe tended to dominate the memories of an entire generation and extended to scholars of that generation's history. But those numbers were inflated by the flu: Army Chief of Staff General Peyton March ordered that military influenza victims be included in the rolls of war dead. The oft-repeated assertion that World War I was the first war in which American battle deaths outnumbered American disease deaths is incorrect; influenza claimed more military personnel than the Germans. The banality of influenza is another

reason for scholars' silence. Not an exotic disease like cholera or yellow fever, influenza continues to visit communities and families yearly, without fanfare. The effects of the epidemic on institutions was likewise muted; yellow fever in Philadelphia propelled the construction of myriad public health institutions, cholera resulted in systematic efforts to improve sanitation, and HIV/AIDS reordered our perceptions of sex and triggered a valuable search of the national soul with regard to homophobia and discrimination. Influenza's dramatic visitation, however, failed to shift medical or cultural attitudes and seemingly left scholars with little more to do than tabulate losses.

This historiography of the literature was not suggested solely as a traditional survey of sources. Instead, this article is intended not only to guide academicians, but also to encourage instructors in higher education and high schools, as well as members of county and borough historical societies and students, to bring the story of the influenza epidemic into our history. Many of the resources are digitized and easily accessible. The secondary literature devoted to Pennsylvania's influenza experience may appear thin, but Pennsylvania boasts the most extensive and important historiography of any state. This comparatively extensive historiography is the result of the macabre focus on Philadelphia's disaster, the worst influenza outbreak in the industrialized western world. Yet, the focus on Philadelphia has left the history of the rest of state largely untold, with the relative exception of Pittsburgh.

The most respected historian to examine the epidemic in America was Alfred W. Crosby. Crosby is best known for his work on the Columbian Exchange, a term he coined to describe the traffic of organisms, from pathogens and parasites to cattle and crops, between the New and Old Worlds. In 1976 Crosby's attention turned to the influenza epidemic with the publication of *Epidemic and Peace: 1918*. Crosby's book was republished in 1989 as *America's Forgotten Pandemic: The Influenza of 1918* and issued yet again in 2003 in the wake of the growing fear over avian flu.<sup>2</sup> Crosby focused on the American experience, and his work is largely a narrative of the nation in the throes of a sudden, deadly epidemic and therefore not focused on Pennsylvania. However, to press his case for the seriousness of the epidemic Crosby devoted a full chapter to the outbreak in Philadelphia and juxtaposed Philadelphia's experience to San Francisco, which suffered a mild wave of flu in the autumn and a strong wave in the early winter of 1918.

The account Crosby offered of Philadelphia's travails remains the standard by which all subsequent narratives are measured. For Crosby, Philadelphia's terrible outbreak resulted from a combination of factors,

including its position as a major wartime port and manufacturing center, as well as its location in the Northeast. This combination proved fatal, suggested Crosby, as its population swelled with hundreds of thousands of laborers who crowded into housing that included hastily constructed workers' barracks and stuffed boarding rooms. Poor living conditions combined with high-density housing facilitated the spread of respiratory diseases of all sorts, especially pneumonia, and ultimately influenza. Furthermore, the outbreak of pandemic influenza in North America that initiated the epidemic occurred in Boston, and Philadelphia's proximity to Boston resulted in importation of the virus before national, state, or city health leaders recognized the danger. Crosby found some fault with the city's response, which he characterized as lacking the degree of force required by such an emergency but avoided blaming the losses incurred by the city on its municipal public health establishment. Crosby's work on Philadelphia relied primarily upon newspaper accounts of the outbreak, which he bolstered with limited city and state records. His work stood alone throughout the 1980s and 1990s until an event prompted renewed interest in influenza and the great epidemic of 1918–19.

In 1996, a handful of people fell sick in Hong Kong. Their illness included all the common symptoms of influenza: fever, head and body pains, and a dry cough. Within days, complications developed that included bronchial inflammation and the filling of bronchial passages and the lungs with fluid, followed rapidly by death, exactly the course of disease described during the 1918–22 pandemic. The culprit behind the outbreak was an avian influenza virus, H<sub>5</sub>N<sub>1</sub>, which jumped directly from birds to people. Most of the victims were connected to the poultry industry in some fashion and were probably exposed to such huge doses of the virus that it overwhelmed their immune systems and caused infection. The virus generated a 60 percent case fatality rate, extraordinarily high for any pathogen, especially influenza. About the only cheerful news was the virus's inefficiency in transmission from birds to people, as well as its marked inability to pass from person to person. Scientists feared that the next step in the virus's evolution would be acquiring the ability to pass efficiently between people. To prevent spread of the virus, authorities ordered the culling of tens of millions of chickens and ducks in Hong Kong in just a few days. The virus, stealthy as ever, hid in avian populations and re-emerged in humans in 2003 in a series of outbreaks in Hong Kong and mainland China that were far worse than 1996. Furthermore, the virus spread to Vietnam and Indonesia, where it killed dozens.

The specter of an influenza virus with the potential to wreak the havoc caused in 1918 spurred scholars, including historians, to redouble their scrutiny of the virus that caused the 1918–22 pandemic, as well as the ways in which communities met the epidemic at its peak during the autumn and winter of 1918–19. It was in this atmosphere that John Barry, a sports writer-turned-historian, released his book, *The Great Influenza: The Epic Story of the Deadliest Epidemic in History* in early 2004.<sup>3</sup> A semi-scholarly work with relatively few footnotes, *The Great Influenza* nevertheless ranks as one of the most important works for historians of the epidemic in Pennsylvania and the nation as it received a great deal of attention from then-President George W. Bush and earned Barry a place as the first nonscience member of the National Science Foundation. Barry centered the narrative around the scientific response to the epidemic, but also offered an intensive vignette about Philadelphia, an analysis convincing other scholars that Philadelphia offered a study in poor public health leadership.

Unlike the narrative offered by Crosby, which largely blamed the events in Philadelphia, including the storage of bodies in apartments for up to two weeks, reeking piles of decomposing corpses in the city morgue, and the opening of trench graves, on wartime crowding and Philadelphia's close proximity to Boston, Barry placed the blame on the city's director of public health, Wilmer Krusen. Unfortunately, though Barry inflicted great damage on Krusen's legacy, he offered very little evidence of incompetence on the part of Krusen and performed only a cursory examination of his life and career. Barry blamed Krusen for over 13,000 deaths. This charge warrants a thorough understanding of Krusen's public health credentials, especially as Barry characterized Krusen as a "decent man" who "lacked background in, commitment to, or understanding of public health issues." Furthermore, Barry suggested that Krusen "was by nature someone who thought most problems disappeared on their own," and therefore "would exert no pressure whatsoever on the machine to advance the public health." Barry also believed Krusen possessed the power to unilaterally cancel the Fourth Liberty Loan Parade, the city's largest public gathering, on September 28, a few days after the city acknowledged an outbreak in progress. The state legislation that provided for the construction of the city's health department allowed the mayor to fire the director of health for any reason, or no reason at all. It is a near certainty that had Krusen attempted to cancel Philadelphia's penultimate display of patriotism and civic virtue, the mayor would have removed him. Yet these details, of utmost importance to the scholar, went unrecorded in Barry's

narrative. Barry's retelling of the disaster in Philadelphia affected scholars for years, and several cited Barry's work in their own assessment of Philadelphia.

A second important history of the global sweep of influenza is Laura Spinney's *Pale Rider: The Spanish Flu of 1918 and How It Changed the World*.<sup>4</sup> The author, a journalist and science writer, concentrated on possible origins of the disease, anecdotes of its power to sicken and kill in major metropolises and remote villages alike, and the ways in which the epidemic subtly transformed history. Like Barry's account, *Pale Rider's* style and pace make it appealing to a general audience, while it offers a solid sketch of the global movements of the epidemic for the scholar just beginning their research. The author is clear in her intention to not offer a scholarly monograph, nor does she partake in wild speculation about origins. The chief strength of the work is its examination of the myriad ways in which communities and individuals confronted the epidemic and its aftermath across the globe.

Two other histories of the epidemic in Philadelphia are important for any serious scholar. The first and most valuable is Monsignor Robert Tourscher's *The Work of the Sisters During the Epidemic of Influenza, October, 1918*.<sup>5</sup> Published only a year after the epidemic, Tourscher's work is a collection of oral histories he recorded with some of the 3,000 nuns who answered a call for volunteers by the archbishop of Philadelphia. Tourscher emphasized the rapidity of the nuns' response, a result of the top-down nature of the church's holy orders. The nuns rapidly staffed the city's emergency hospitals as well as its overwhelmed regular hospitals. One nun recalled "twenty-five or thirty men in each ward and adjoining shack. Most of these were men who had come to Philadelphia to work in ammunition plants, and generally they had been living in one rented room. They were lying there with the dirt of their work still on their hands and faces." In addition, Tourscher emphasized the role of flying squads of nuns who swept through neighborhoods, notified authorities of decomposing corpses in homes, and cared for the ill, which often included entire families. One group of nuns entered a house only to be "met by a stench so offensive that they had to retreat to recover breath." The odor arose from the body of a young woman kept in a bedroom for a week because no one would retrieve the body. The father informed the nuns that yet another daughter also lay seriously ill.

Another work published by the archdiocese was "The Work of the Seminarians," by Thomas C. Brennan, a priest/professor at the St. Borromeo Seminary just outside Philadelphia.<sup>6</sup> Along with the archbishop's call for the nuns to step forward, he pushed seminary students, all in their late teens and

early twenties, to assist in disposing of the thousands of corpses that lay in homes, hospitals, morgues, and sidewalks. Brennan took pains to impress upon the reader that most of the young men were middle class by birth and unused to hard labor. The seminarians dug trench graves in the city's Catholic cemeteries, especially Holy Cross Cemetery in Yeadon, just across the county line from the city. Brennan described the condition of the corpses, many of which lay for over a week in homes and morgues and were in advanced stages of decomposition when the seminarians received them. Brennan emphasized that much of the city's relief was left in the hands of Monsignor Joseph Corrigan, archdiocesan head of charities, including the use of "plague carts" manned by priests and seminarians. The carts, famous in the literature and television documentaries of the epidemic in Philadelphia, collected the dead and cleared out hundreds of bodies from the city morgue. The archbishop's prayer for the seminarians promised that "it will not be soon forgotten how, toiling far into the night, you dug graves, and after saying the prayers for the dead you carried decomposing corpses in your arms, and then buried them with your own hands."

The obscurity of Tourscher and Brennan in the historiography may have had important consequences for the analysis of Philadelphia's epidemic; historians from Crosby through Barry, as well as numerous documentaries, have credited a group of wealthy women for bringing order out of chaos. The women formed a relief committee and established a switchboard in a downtown department store to receive calls for help and dispatch ambulances and other aid. Their committee ran concurrently with the archdiocese's relief operations. The archdiocesan effort included not just organizers and leaders, but also thousands of nuns, seminarians, priests, and laypeople who reached into every neighborhood, hospital, and cemetery. Tourscher and Brennan provide the only inside view of the church's herculean efforts to reduce the terror and death that staggered Philadelphia. Scholars who hope to understand the day-to-day struggle against the epidemic through the eyes of relief workers will almost certainly fail to find better sources than Tourscher and Brennan.<sup>7</sup>

Pittsburgh suffered the worst mortality rate for a major American city. Unlike Philadelphia, however, whose dead lay piled in morgues—and were photographed laid out like cordwood before burial in mass graves—Pittsburgh experienced a protracted, seven month-long epidemic that claimed more than 6,500 lives. The city's epidemic, from October through April, was the longest in the nation, though it experienced a much shallower



epidemic curve and therefore avoided the breakdown in city services recorded in Philadelphia. While Philadelphia is a case study in urban dysfunction during an epidemic, Pittsburgh offers a compelling case study for scholars interested in the role of environmental factors, air pollution most significantly, in increasing the lethality of the virus and its subsequent opportunistic bacterial infections. Furthermore, in Pittsburgh more than any major city, the intransigence of city officials in the face of an obviously growing epidemic, and at times the outright rejection by city hall of public health measures decreed by the state, unmasked the city as one of the worst-managed in the nation.

The first work dedicated to Pittsburgh was Kenneth White's "The Great Epidemic in Pittsburgh."<sup>8</sup> White offered the first coherent narrative of the epidemic in Pittsburgh. Not an analytic work, it traces the epidemic, the public health measures the city adopted, and the resolution of the outbreak in early 1919. In 2010 James E. Higgins published "With Every Accompaniment of Ravage and Agony": Pittsburgh and the Influenza Epidemic of 1918–19<sup>9</sup> Higgins's work profited from White's article and constituted an evolutionary step in understanding the long-period outbreak in Pittsburgh. Higgins's essay positioned Pittsburgh's enormous losses and months-long epidemic as a consequence of the damage inflicted by particulate pollution spewed out of the city's mills and coke ovens. The article also suggested the city was saddled with a well-meaning but wholly inadequate public health leader—an accountant with no medical training whatsoever—who suggested that "whether or not an epidemic is occurring is really a matter of opinion," days after the state declared an epidemic in progress in the city. As a result of political bickering over whether the state or city held the authority to declare crowd bans, the mayor unilaterally ordered the city's police to ignore state orders and allow entertainment venues to operate as normal.

Along slightly different lines, the faculty of the University of Pittsburgh's School of Medicine compiled perhaps the most important study by physicians and scientists in the nation. The work, *Studies on Epidemic Influenza Comprising Clinical and Laboratory Investigation*, is unique as no other faculty or hospital published a detailed report on the pathology and epidemiology of the epidemic in Pennsylvania, nor on treatment options and outcomes.<sup>10</sup> Not a history of the epidemic per se, it nevertheless is an important historical document that should be explored by scholars and reinforces traditional historians' accounts that air pollution played a major role in aggravating the epidemic in Pittsburgh and, by extrapolation, in other mill and mining towns.

A remarkable work that would not ordinarily be included in a historiography is John O'Hara's short story entitled "The Doctor's Son." O'Hara, born in Pottsville, became an important, if underappreciated author.<sup>11</sup> He was thirteen when the epidemic struck the town in which his own father was a physician. His account in "The Doctor's Son" was roughly autobiographical and remains one of the very few works of fiction that recalls the epidemic and its impact on a community, and the only work of fiction that describes the epidemic in Pennsylvania. Although O'Hara did not write the story as a history, a careful reading of the brief text yields important clues about the epidemic as it presented in the anthracite coal region. O'Hara's observations are especially important for the insight they shed on the effects of aggravating factors. He commented, for instance, that "young men who wheezed in their 20s from miner's asthma stood no chance when flu came to town." This observation alone indicates that contemporaries were aware of the consequences of poor pulmonary health.

O'Hara also confirmed the importance of the United States Army Ambulance Corps, the USAACs (pronounced "You-Sacks") in the fight against influenza in the anthracite region. The USAACs were entirely trained at the only Army camp dedicated solely to training medical personnel, Camp Crane, in the fairgrounds of Allentown, Pennsylvania. Though in 2004 Barry wrote that "the military could provide no aid to civilians," the USAACs sent scores of doctors, orderlies, and ambulance drivers to the anthracite region where, O'Hara remembered, "gray ambulances of the USAACs sped through the streets of small coal towns on their missions of mercy." O'Hara also bears witness to the panic gripping people from the horror of the losses in Carbon, Lackawanna, Luzerne, and Schuylkill counties. O'Hara wrote that Italian fathers would often force, upon threat of violence, his physician-father to accompany them to their homes. The men were "grief stricken after watching every member of their family strangled by the flu." O'Hara also related that his father and other doctors mixed "medicine" in large batches for use by victims. Physicians knew the medicine, mostly alcohol, would have no effect on the course of the illness, but might calm panicked people. Though "The Doctor's Son" is not a history of the epidemic, no better record exists of the severity of the epidemic in the Pennsylvania anthracite region, one of the worst-hit areas in the nation.

The influenza pandemic was an important and understudied event in the commonwealth's history. It is the responsibility of historians to pull back the shroud that fell upon epidemic victims and the broader event of the

plague itself. The task may be accomplished by simply teaching our students about the epidemic and engaging them in the epidemic by way of their own research. The labor is made simpler by virtue of the fact that, as influenza struck every community in the state, regardless of size, teachers and professors should have a wealth of local records.

The first step for any researcher is a survey of the local newspaper. The paper will likely put a positive spin on the epidemic in the interest of buoying public morale. False hope aside, however, the local press offers a solid outline of a town's outbreak. The next step is a trip to the county (or town) historical society. Usually the most important records in these repositories are the county and borough health boards, as well as city council meeting minutes, all of which are outstanding records to explore after one establishes the course of a local outbreak with close inspection of newspapers. Other fantastic resources are the Pennsylvania Council of National Defense papers housed in the Pennsylvania State Archives in Harrisburg—and local historical societies often have their own copies—which delineate some of the state's responses to local outbreaks. Other possibilities are cemetery records, the records of funeral homes, the Red Cross, and hospitals, though hospitals and funeral homes often balk at the prospect of researchers combing through their records. Cemeteries themselves, as long as they date to 1918, will undoubtedly hold the remains of influenza victims. Some cemeteries cluster the remains in one small area, and the effect of seeing the grave markers—to say nothing of imagining the upturned earth and poignant scenes when the graves were dug—offers a view of the epidemic's effects quite different than traditional archival records. In my experience, cemeteries possess the uncanny ability to connect our students with the victims of the epidemic in a powerful way.

Unexplored histories offer a wealth of possibilities for research. The influenza epidemic in Pennsylvania is a rich field for this. The professor and teacher, as well as the unaffiliated scholar, have the opportunity to broaden the vistas of their lectures and the intellectual horizons of students by connecting the epidemic in modest university towns with the great events of World War I and a global pandemic that wrought devastation in every corner of the world. Indeed, the effects in small Pennsylvania towns and cities were mirrored by similar events in communities throughout the nation and the world. The virus, then, connects all Pennsylvanians in 1918–1919 with people throughout the world. The 100-year anniversary of this most catastrophic epidemic offers the prospect of a renewed commitment to rediscovering lost

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history in all of our communities while coming to a deeper understanding of the period in all its facets.

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## NOTES

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