

MDMLG NEWS

Spring 2020

President's Message from Merle Rosenzweig



Metropolitan
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Medical
Library
Group

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These are trying times

We, as Medical Librarians and Informationists, see our charge as delivering health information to the people we serve in a variety of health care settings and beyond. The health information that we deliver impacts patient care and medical research. We find that this charge is even more important now that we are faced with a monumental health care crisis. We are keeping this important flow of information going in various ways, as we work remotely. I think we are taking to heart a quote from Duke Ellington, "A problem is a chance for you to do your best." I know that all of us are.

Merle Rosenzweig
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Spring General Meeting April 2, 2020

The Spring MDMLG General Business Meeting will be held virtually.

The business meeting will be held on **Thursday, April 2, 2020 from 10:30am – 11:45am via Zoom.**

The programming portion of the meeting had to be canceled so this will ONLY be a business meeting.

Topic: MDMLG General Business Meeting

Time: **Apr 2, 2020 10:30 AM** Eastern Time (US and Canada)

Join Zoom Meeting

<https://zoom.us/j/528696615>

Meeting ID: 528 696 615

One tap mobile

+16465588656,,528696615# US (New York)

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Dial by your location

+1 646 558 8656 US (New York)

+1 312 626 6799 US (Chicago)

+1 301 715 8592 US

+1 346 248 7799 US (Houston)

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US

Meeting ID: 528 696 615

Find your local number: <https://zoom.us/u/aWO7VkhX3>

Thank you on behalf of the MDMLG Program Committee.

Katherine Akers

Bethany Figg

MDMLG Slate of Candidates 2020

We would like to introduce the 2020 MDMLG slate of candidates for your consideration

Resumes have been emailed to all members.

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President Elect-Margaret Hoogland,

Treasurer-Gina Hug,

Member Services Chair-Steven Moore,

Nominating Committee- Alexia Estabrook, Margaret Danowski, and Alexandra Sarkozy.

We ask for any other nominations by petition to please let the committee know, the deadline is April 3 for any other nominations

Melanie Bednarski, Nomination Chair

Orien Duda

Katherine Akers

Pandemics and Epidemics Through History: This Too Shall Pass

By Jill Turner

COVID-19. Ugh. I'm already sick of hearing that term and I suspect we have a long way to go before it can simply fade into a bad memory. The world has experienced many pandemics. In fact, there have been over nineteen pandemics recorded through history (and, I probably missed a few). They are concerning yet also fascinating in many ways. Sociologists will undoubtedly relish studying peoples' reaction to the crisis once the threat has passed. For instance, why stockpiling toilet paper (of all possible things to stockpile) can offer a feeling of control. Additionally, society will almost certainly change in some lasting manner. How can it not after the life-altering state and federal mandates combined with the fear the situation creates? Then there is the disease/virus itself. What is its exact etiology and pathology? Did it really come from a bat or a civet, or is it avian or swine? Can people be re-infected as some cases from Japan suggest? When a disease is especially contagious, as begets a pandemic or epidemic, these questions take on a more immediate concern as the world watches it spread. What follows is a look back at some of the other epi and pandemics that plagued the world.

First, a review of semantics. What is the difference between a pandemic versus an epidemic versus an outbreak? An [outbreak](#) is the lowest rung on the epidemiologic ladder; it is "a sudden rise in the incidence of a disease". When I was in high school, one of the surrounding towns had an outbreak of 344 cases of giardiasis. [Giardiasis](#) is a parasitic disease that causes GI symptoms – most commonly diarrhea. The parasite (*Giardia*) lives in the intestines and spreads through feces. The outbreaks in the Youghiogheny River communities occurred as a result of the McKeesport Water Authority's polluted water supply. (Gross) The bug even looks disgusting (see below). My poor grandparents had to boil their water for four months.



CDC website: Giardia parasite

An [epidemic](#) is one rung above an outbreak. It is defined as an "outbreak of contagious disease that has become more severe and less localized". The U.S. has experienced multiple epidemics throughout history: smallpox, yellow fever, cholera, scarlet fever, typhoid, diphtheria, polio, whooping cough, measles, and flu. Smallpox was one of the first epidemics recorded in what was to become the United States. European immigrants brought the variola virus with them when they emigrated to the U.S. in the 1600s, almost decimating the Native American population. Another smallpox epidemic struck during the [Revolutionary War](#) in 1775. Washington considered smallpox was more of a threat to his soldiers than the Redcoats. Many of the British soldiers had been exposed to the virus in England, where it was common, and had become immune; the Continental Army did not have the resistance to smallpox that the British Army had. That smallpox epidemic lasted seven years. The U.S. saw its last natural (versus travel-related) outbreak in 1949, and the [World Health Assembly](#) declared that smallpox had officially been eradicated in 1980.

[Yellow fever epidemics](#) first appeared in the U.S. in the late 17th century then periodically over the next 200 years. Ships arriving in U.S. port cities carrying passengers from the Caribbean also carried in the virus. Epidemics intermittently flowed up the Mississippi River through the 19th century. Yellow fever victims [presented](#) with fever, body aches, severe headache, vomiting, and occasionally liver disease resulting in jaundice and

bleeding. Today, yellow fever is rare in the U.S. It is transmitted by infected mosquitos, and there is no cure, so prevention, when traveling to areas of risk, is key.

Next came cholera and scarlet fever. [Cholera](#) epidemics hit the U.S. three separate times in the 1800s. Cholera is a bacteria that, like giardiasis, is spread by feces-contaminated water or food, frequently seafood. According to the CDC, cholera does not spread through person to person contact. With the advent of modern sewage and water systems, cholera cases in the U.S. are very rare and usually only occur with international travel to epidemic areas such as Africa, Haiti or southeast Asia. Another epidemic to run rampant was [scarlet fever](#). Scarlet fever is caused by the strep bacteria and is, today, considered to be a mild infection that can be cured by antibiotics. Back in its heyday (starting in 1858), due to its highly contagious nature and dire prognosis, all personal effects that came into contact with a scarlet fever victim were burned. The disease has been immortalized in two famous books. Louisa May Alcott's character Beth March contracted scarlet fever which provided a major plot point in *Little Women*. And, in one of the saddest books ever written, the little boy in *The Velveteen Rabbit* became infected with scarlet fever directly impacting the "life" of his toy rabbit.

The 1900s ushered in several epidemics including one of the most famous in American history, typhoid. An asymptomatic carrier of the highly contagious typhoid bacteria, [Mary Mallon](#) was believed to have infected at least 52 people in New York City. Less famous but more deadly, Tony Labella is thought to have infected 100 people. Two other epidemics circulated throughout the populace in the first half of the 1900s. [Diphtheria](#) made its rounds in the early part of the century, and [polio](#) began to escalate in 1916, reaching a zenith in the 1940-50s. Dr. Jonas Salk, a noted flu expert was recruited by my alma mater, the University of Pittsburgh, to develop a vaccine for the virus. As history shows, he was successful; the vaccine became available in 1955. The U.S. has not had any cases of polio originate here since 1979; however, international travelers have brought polio into the U.S. from abroad. The University of Pittsburgh's School of Pharmacy and School of Dental Medicine bears the name Salk Hall in honor of Dr. Jonas Salk.

The latter part of the 20th century on into the early part of the 21st century has seen a measles epidemic in [1991](#), a [whooping cough](#) epidemic in 2012, and another measles epidemic in [2015](#). These recent epidemics have mainly involved unvaccinated children.

A [pandemic](#) is a global outbreak of a contagious disease. There have been more than a dozen pandemics experienced throughout history. The first recorded occurred in 430 B.C. during the Peloponnesian War. An eye-witness account of the [Plague of Athens](#) was recorded by the historian Thucydides and included symptoms consistent with smallpox or typhoid. The disease assisted the Spartans in defeating the Athenians, who had been significantly weakened by illness.

Listed as one of the five deadliest pandemics in history, the [Antonine Plague](#) was also believed to have been caused by the smallpox virus. It spread to Rome from Seleucia (modern-day Iraq) and lasted 25 years, finally ending in 180 A.D. The pandemic was named for Marcus Aurelius Antoninus, Roman Emperor at the time and believed to be one of its estimated 5 million victims. The next pandemic to come along was the [Cyprian Plague](#) in 250 A.D. Thought to have started in Ethiopia, it spread northward when city folk fled to the country to escape and instead took the infection with them. Outbreaks reoccurred over the next 300 years. The disease reached Britain in 444 A.D. where it began to weaken the British during their skirmishes with the Scots. In a move that would change history, Britain sought assistance from the Saxons, who would slowly assume control of the land. The recorded signs of Cyprian plague included fever, diarrhea, vomiting, oral lesions, conjunctival hemorrhage, and gangrenous extremities. Scientists are not sure what caused this plague but [differential diagnosis](#) include smallpox, a viral hemorrhagic fever, pandemic influenza, and even Ebola.

The [Justinian Plague](#), another pandemic to be named after a Roman Emperor, appeared in the Empire around 541 A.D., courtesy of Egyptian grain boats infested with rats. Thought to be the first documented occurrence of bubonic plague, it took a heavy toll claiming approximately 25 million lives. 1350 A.D. saw the next surge of bubonic plague sweep through Asia and Europe. This wave was named the [Black Death](#) as it is estimated to have

killed 50% of the population in Europe. It was a [game changer](#) in more ways than one. The heavy death toll effected Britain's demographics so drastically that it caused the collapse of the British feudal system. And, the Vikings were so weakened they could not battle the native populations and had to cease their exploration of North America. A third wave of the plague ([The Third Plague Pandemic](#)) originated in China around 1772. Over the next approximately 100 years, it spread throughout the world. Bubonic plague is caused by the bacteria *Yersinia pestis* which is carried by rodent fleas. The strains of the bacteria that caused the first two pandemics are now extinct; however, occasional cases of bubonic plague still turn up in rural western United States.

Portions of the world have experienced several other pandemics over the centuries. Leprosy reached pandemic proportions in the 11th century in Europe. There were seven waves of [cholera](#) pandemics over 150 years; the first originating in Russia around 1817. The first serious flu pandemic also emerged from Russia in 1889 before fanning out to a large portion of the globe.

Since the advent of antibiotics, pandemic diseases have gone viral with the flu being, by far, the most common. The [Spanish flu of 1918](#) (H1N1 virus) turned out to be the deadliest flu pandemic in history. Thought to have emanated from China, it is estimated to have infected 500 million people, claiming the lives of an estimated 50 million, including 675,000 in the U.S. It was erroneously nicknamed the "[Spanish flu](#)" for an outbreak that was reported in Madrid. This virus was unusual in that healthy adults 15-34 years old suffered a bizarrely high death rate. The disease abruptly disappeared in 1919. Currently, the [Mutter Museum](#) in Philadelphia is hosting an exhibit called *Spit Spreads Death: The Influenza Pandemic of 1918-19 in Philadelphia*, based on a public awareness campaign at the time to stop the spread of the disease. It will run until Fall 2024; if you are in the Philly area stop by. However, in an ironic twist, the Mutter Museum will be closed until the end of March 2020 due to the COVID-19 pandemic.

In 1957, the world experienced a new strain of influenza A (H2N2), the [Asian flu](#). It originated in Singapore then swept through Hong Kong and China before hitting the U.S. that summer. The next

pandemic to hit came 10 years later and was a variation of the H2N2 Influenza A virus. H3N2, aka Hong Kong flu, made its appearance in the U.S. in 1968. [This flu strain](#) contained 2 genes from an avian flu virus along with the enzyme from the 1957 H2N2 virus. H3N2 continues to mutate and make its rounds each year as a seasonal flu virus.

The next viral pandemic to come along was not an influenza virus but one that assaulted the immune system. Thought to have originated in West or Central Africa from a chimpanzee virus, the human immunodeficiency virus ([HIV](#)) has been in existence since the 1920s and present in the U.S. since the 1970s. In the U.S., HIV began escalating in the 1980s. Today, it is still dubbed one of the [most serious current public health issues](#) with about 1.7 million people becoming newly infected globally in 2018.

Flu pandemics returned to take center stage during the turn of the century. Severe acute respiratory syndrome ([SARS](#)) traveled the globe in 2003 affecting more than 24 countries and becoming the first pandemic of the new millennium. Like today's COVID-19, SARS is a coronavirus and originated in China. The CDC announced [the virus had been successfully contained](#) in the U.S. on May 6, 2003. WHO announced successful global containment in early July 2003. There has not been a SARS case reported in 16 years. Another coronavirus was behind the next pandemic, Middle East Respiratory Syndrome ([MERS](#)). It was first reported in [2012 in Jordan](#). Sporting the same signs and symptoms as SARS and COVID-19, MERS victims experienced fever, cough and shortness of breath. This pandemic did not have a serious presence in the U.S. There were only two confirmed cases and both parties recovered. The MERS pandemic however is ongoing. The last major flu pandemic to sweep the globe came in spring 2009. [H1N1](#), or "swine flu" as it was called at the time, was first observed in the U.S. before spreading to the rest of the world. Now known as (H1N1)pdm09, this virus was different from other strains of H1N1 that had been encountered previously and were circulating at the time. First, it contained a unique combination of genes not detected in people or animals before. Secondly, children and middle-aged adults were the [vulnerable populations](#) for this strain of influenza. Many people over 60 years of age had existing antibodies possibly from some viral exposure earlier

in their lives. Finally, two separate instances of the disease presented nearly simultaneously without prior contact between the effected individuals. Patient zero was diagnosed on April 15, 2009. Patient #2 was diagnosed two days later, 130 miles away. There had been no contact between the two patients. A second wave of the virus spread through the U.S. and peaked in October 2009. The first doses of the H1N1 vaccine were given in October 2009. It wasn't until August 2010 that WHO pronounced the end of the H1N1 pandemic.

[Visual Capitalist](#) put together a very cool data visualization showing the history of pandemics and their impact. The moral of this story is "this too shall pass". But, while we are holed up, hunkering down and keeping our social distance, here are a few recommended readings to help while away the hours that could not be spent out amongst the masses. The following are mostly non-fiction and have been personally recommended by fellow librarians or the New York Times:

Brennert, A. (2004). *Moloka'i*. (Fiction)

Crawford, D. (2018). *Viruses: A Very Short Introduction*.

Davidson, T. (2017). *Vaccines: History, Science, and Issues*.

Doherty, P. C. (2013). *Pandemics: What Everyone Needs to Know*.

Fenn, E. (2013). *Pox Americana: The Great Smallpox Epidemic of 1775-82*. (NYT recommendation)

Johnson, S. (2006). *The Ghost Map: The story of London's most terrifying epidemic--and how it changed science, cities, and the modern world*.

Kolata, G. (2011). *Flu: The Story of the Great Influenza Pandemic of 1918 and the Search for the Virus That Caused It*. (NYT recommendation)

Preston, R. (2002). *The Demon in the Freezer: A true story*

Preston, R. (2019). *Crisis in the Red Zone: The Story of the Deadliest Ebola Outbreak in History, and of the Outbreaks to Come*.

Preston, R. (2019). *The Hot Zone*.

Rhodes, J. (2013). *The End of Plagues: The Global Battle Against Infectious Disease*.

Shah, S. (2011). *The Fever: How Malaria Has Ruled Humankind for 500,000 Years*. (NYT recommendation)

Snowden, F. M. (2019). *Epidemics and Society: From the Black Death to the Present*.

Taylor, S. (2019). *The Psychology of Pandemics: Preparing for the next global outbreak of infectious disease*.

Tuchman, B. (2017). *A Distant Mirror: The Calamitous 14th Century*. (NYT recommendation)

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News

Not now. Maybe next issue

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