

THE AMERICAN INFLUENZA EPIDEMIC OF 1918: A DIGITAL ENCYCLOPEDIA

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CENTER FOR THE HISTORY OF MEDICINE

The American Influenza Epidemic of 1918: A Digital Encyclopedia is a current project at The Center for the History of Medicine, a unit of the University of Michigan Medical School.

Founded in 1990, the mission of the Center for the History of Medicine is to conduct scholarly research on the history, culture and philosophy of medicine; to instruct and collaborate with our students, colleagues, and the broader community on these topics; to place contemporary medical dilemmas in context with past events and, thus, help inform public health and medical policies.

RESEARCH TEAM

Howard Markel, M.D., Ph.D., Director is the George E. Wanzel Professor of the History of Medicine, Professor of Pediatrics and Communicable Diseases, Professor of History, Professor of Psychiatry, and Professor of Health Management and Policy (School of Public Health). The author or editor of 8 books including *Quarantine!* (Johns Hopkins University Press, 1997) and *When Germs Travel* (Pantheon/Alfred A. Knopf, 2004), Dr. Markel has written over 100 scholarly articles and reviews. He is a frequent contributor to the *New York Times*, *Harper's*, *National Public Radio*, and other publications.

Alexandra Minna Stern, Ph.D., Associate Director is the Zina Pitcher Collegiate Professor in the History of Medicine and Associate Professor of Obstetrics and Gynecology, History, and American Culture at the University of Michigan. Her book, entitled *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America* (University of California Press) won the 2006 Arthur Visel Prize from the Medical Care Section of the American Public Health Association for the outstanding book in or scholarly contribution to the History of Public Health in America.

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ABOUT THE PROJECT

The American Influenza Epidemic of 1918: A Digital Encyclopedia, is funded by The Center for the History of Medicine (CHM), the U.S. Centers for Disease Control and Prevention, and the National Endowment for the Humanities (NEH). The NEH awarded the project with a prestigious *We the People* designation for its efforts to strengthen the teaching, study, and understanding of American history and culture. The digital encyclopedia is powered by the Scholarly Publishing Office of the University of Michigan Library and the Digital Library eXtension Service (DLXS).

In 2005, CHM was contacted by the Defense Threat Reduction Agency (DTRA) and asked to conduct a study of "escape communities," or places that experienced few influenza cases and no deaths during the 1918 pandemic. Following that study, in 2007, the U.S. Centers for Disease Control and Prevention tasked CHM with conducting a quantitative historical study of American cities during the pandemic. The CHM researchers concluded that cities that acted early, implemented a layered response, and kept health measures in place for longer fared better, experiencing lower influenza and pneumonia mortality rates. This conclusion became the basis for the US government's pandemic preparedness policy. In April 2010, the CHM staff collaborated with scholars across the nation to produce a special supplement of *Public Health Reports* about the 1918-1919 Influenza Epidemic in the United States. Plans to expand the content of the *Encyclopedia* to include more recent outbreaks of influenza, such as the wave of "swine flu" in 2009, are currently under way.

The swine flu (A/H1N1) outbreak in April 2009 revived the threat of a global influenza pandemic and prompted governments and citizens to consider in real time how best their communities might respond to the appearance of a new and potentially deadly virus. During the swine flu outbreak, the most constant historical reference point was the 1918-1919 influenza pandemic, which killed approximately 50 million people worldwide. Indeed, the 1918 pandemic remains the most calamitous infectious event in the post-germ theory modern era.

In creating the digital encyclopedia, we aim to provide the first comprehensive virtual collection of archival, primary, and interpretive materials related to the history of the 1918-1919 influenza pandemic in the United States. The collection is composed of materials gathered and consulted during CHM's past research projects. This virtual collection is intended for a wide-ranging audience that encompasses high school and college students, historians and social scientists, epidemiologists and public health practitioners, journalists and writers, as well as inquisitive internet users.

The process of digitizing materials began in October 2009 and is ongoing. The website is expected to be completed in Spring 2012.



www.influenzaarchive.org
AVAILABLE SPRING 2012

FEATURES

Our digital encyclopedia will be a collection of over 50,000 pages of materials that document the experience of diverse communities in the United States in fall 1918 and winter 1919 when flu took the lives of hundreds of thousands of Americans from coast to coast. It will highlight the human and social experiences of disease, death, and dislocation associated with the pandemic. The *Encyclopedia* will provide access to an extensive set of interpretive documents, such as city essays, timelines, information boxes, and sidebars that will help guide the reader and serve as templates for self-guided research projects.

Specifically, our digital collection will include:

- Original archival materials collected at over 142 archival repositories across the United States. These materials include:
 - Letters and correspondence
 - Minutes of organizations and groups
 - Official proclamations and orders
 - Reports of agencies and charities
 - Diaries and recollections
 - Photographs
 - Historical charts
 - Ephemera
- All available municipal annual health and other reports from 50 of the most populous cities in the United States (1917-1922)
- Every available U.S. state and federal report on influenza (1917-1922)
- U.S. Census mortality data and local and state case incidence data, September 1918-March 1919
- The corpus of published medical, public health, and popular literature on the 1918 influenza pandemic in the United States (1918-1928)
- Excerpts related to influenza from different newspapers from the selected cities, categorized by circulation, readership, and political affiliation from September 1918 to March 1919, including immigrant (Italian, Polish, Mexican, etc.) and African American newspapers
- U.S. military records, primarily from the Army and Navy (1918-1921)

The majority of these materials will be scanned from high-quality photographs made from the original repository collections.

Our digital encyclopedia will explore every aspect of the pandemic, ranging from detailed personal struggles and triumphs to the big picture of health and disease at the time. One of the great strengths of the digital encyclopedia will be the interpretive documents that we have written on America's experience during the epidemic. These interpretive documents will situate this global health crisis in a national context vis-à-vis public health, medical research, race and ethnic relations, urbanization, World War I militarism, gender dynamics, political governance, volunteerism, and other salient factors. The interpretive documents will showcase hundreds of previously untold stories of Americans from myriad backgrounds, including industrialists, reformers, politicians, orphans, and teachers. Our digital encyclopedia will also provide sections that explain the basic science of viruses, and specifically the antigenic shift, reassortment, and transmission of the influenza virus, all highlighted with visuals and graphs.

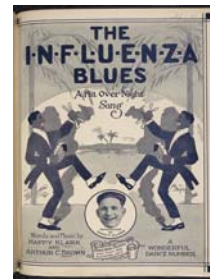
The largest set of interpretive documents will be the 50 "city biographies" written by our research team. These essays explore the responses taken by 50 of the most populous cities during fall 1918 and winter 1919 as influenza ravaged their communities. They present the social and cultural context of each city and explore the issues that became salient in each one as the epidemic unfolded over the fall and winter. Taken as a whole, these cities, which accounted for over 22% of the total American population at the time, represented a wide cross-section of society in terms of class, race, gender, ethnicity, region, and pre-existing health and disease indicators. These interpretive essays will include hyperlinked footnotes that will take readers directly to cited sources in the digital collection.



USER EXPERIENCE

Users will access the site through a homepage that describes the project and provides a general overview of its scope and content. Broadly speaking, the site will be divided into two sections: an interpretive and content-rich section containing essays on the epidemic as it occurred in each of the 50 cities in our project, and a digital archive containing viewable and downloadable images of a vast collection of primary source material related to how city, state, and federal officials, physicians and nurses, volunteer organizations, and average citizens responded to, and experienced the epidemic.

We realize that different users will be interested in different aspects of the epidemic, and therefore will come to the site for a variety of reasons and uses. For example, a user interested in learning more about the story of a particular city's epidemic can read its interpretive essay and follow the in-body and footnote hyperlinks to other essays and to specific primary source material located in the digital archive. Another user might prefer simply to browse the materials in the digital archive, either by key historical actors (such as the state health officer, the city health commissioner, the mayor, etc.), by place (city or state), or by topic (immigrant communities and the epidemic, quarantine, nursing, American Red Cross, etc.). Other users might come to the site with specific research goals in mind, and will be able to quickly and directly access the digital archive and begin searching for specific documents, text strings, or document categories.



METADATA

All text images will be tagged with keywords and key-phrases from a controlled vocabulary list resulting in a modified TEI header at the item level. Images (photographs, drawings, maps, etc.) will be tagged using the Dublin Core metadata set.

All of the digitized materials will have the full range of search capabilities offered by the OpenText search engine. These include simple word and phrase searching of all text (as well as a variety of advanced search possibilities) with search restrictions as made possible by the data. Each format will have available to it a variety of display and navigation tools appropriate to that format, such as panning and zooming tools for continuous tone images and multiple views (KWIC, outline, and full text) for document search results. Each format will be searchable through a format-specific interface that will take full advantage of the possibilities offered by the data. In addition, all materials will be searchable through an integrated interface that allows searching any combination of formats.

SIGNIFICANCE

The *Encyclopedia* will make available, for the first time, a wealth of materials that have great appeal to scholars in fields such as American history, American studies, history of medicine, women's and gender studies, ethnic studies, African American studies, science and technology studies, and cultural and literary history. Scholars will be able to explore how the 1918 influenza epidemic impacted many communities and sub-communities in the early twentieth-century United States and to understand on a fine-grained level how individuals and society responded to a health crisis of extraordinary magnitude. In addition, this digital encyclopedia will be of great value for social scientists and public health practitioners who wish to determine if any lessons from 1918 might be applied in the advent of newly emerging infectious diseases, such as swine or avian influenza.

The digital collection will be the first to document exhaustively the impact of the 1918-1919 influenza pandemic on one nation. It will be valuable to scholars and generate a great deal of human interest.

The *Encyclopedia* will be unique in three ways:

- 1) It will be the first digital collection to document the social, cultural, public health, and human dimensions of the most devastating infectious health crisis to occur in the world during the post-germ theory era;
- 2) It will be the first extensive digital collection to highlight the responses of over 50 differing American communities to the 1918-1919 pandemic, with attention to multiple social forces, organizations, communities and to the human experiences of death and disease;
- 3) Our digital collection will provide access to an extensive set of interpretive documents, such as city essays, timelines, information boxes, and sidebars that will help guide the reader and serve as templates for self-guided research projects.