

PUBLIC HEALTH MATTERS

A NEWSLETTER OF THE
PUBLIC HEALTH MUSEUM

Public Health Heroes

Dr. Frances Oldham Kelsey



IN THIS ISSUE

Public Health Heroes: Dr. Frances Oldham Kelsey	1-2
In the Limelight	2
Cadet Nurse Corp Honored	3
2018 Public Health Week	3
A Day at the PHM - Volunteer Hollis Bodman	4
WWI Silver Lining	5
Museum Information	6

Thalidomide was developed by a German pharmaceutical company in the 1950s as an anticonvulsant drug, but was quickly identified for its tranquilizing properties. Drugs that made one sleepy and relaxed were in high demand in Europe and the U.S. during the post WWII years. The market for sleeping pills and tranquilizers was thriving and thalidomide was the only non-barbiturate sedative available at the time. In 1956, thalidomide was licensed for over-the-counter use in Germany and most European countries. By the 1960s it was available in 46 countries, with sales comparable to aspirin. In addition to being used as a sleep aid, thalidomide was also used off-label (for purposes other than those for which the drug is approved) to alleviate morning sickness of pregnancy.

In 1961, severe birth defects in babies born to mothers who took thalidomide during their pregnancy were identified in Germany and the United Kingdom. In Germany, 161 babies with severe birth defects were reported leading the drug manufacturer to stop distribution in Germany. By March of 1962, thalidomide had been banned in most of the countries where it was used, but not before at least 4,000 children in Europe and over 10,000 worldwide were affected by the drug.

Continued on page 2.

Take a step back in time on a Tewksbury Hospital Walking Tour.

Advanced registration required. Call or reserve your spot [here](#).

Seasonal May - October, weather permitting

Wednesdays 6:00 pm :: First Saturday of the month at 10 am :: or by Appointment

Public Health Heroes cont.



Dr. Kelsey receives the President's Award for Distinguished Federal Civilian Service from President John F. Kennedy, 1962

The United States was spared the worst of the thalidomide consequences due to the efforts of one woman, Dr. Frances Oldham Kelsey. In 1960, Dr. Kelsey was just beginning what would be a long career at the Food and Drug Administration (FDA). Within a few months of starting at the FDA, Dr. Kelsey was tasked with reviewing the data on thalidomide, already being widely used in Europe. Dr. Kelsey was concerned by data suggesting serious side effects with repeated use. She also felt the data on effectiveness was inadequate, as was data on the ability of the thalidomide to cross the placenta and affect the fetus. Despite pressure from the drug manufacturer, Dr. Kelsey held her ground and refused to recommend approval of the use of thalidomide in the U.S.

The thalidomide tragedy and Dr. Kelsey's refusal to bend to the will of the pharmaceutical industry prompted significant changes to policies and practices at the FDA. The 1962 Kefauver-Harris Drug Amendments Act tightened the drug approval process and manufacturers were required to prove drugs were both safe and effective prior to marketing. In 1962, President Kennedy awarded Dr. Kelsey the President's Award for Distinguished Federal Civilian Service acknowledging "her exceptional judgment in evaluating a new drug for safety for human use has

prevented a major tragedy of birth deformities in the United States. Through high ability and steadfast confidence in her professional decision she has made an outstanding contribution to the protection of the health of the American people." Dr. Kelsey ultimately became chief of the Division of New Drugs, director of the Division of Scientific Investigations, and deputy for Scientific and Medical Affairs in the Office of Compliance at the FDA. In her roles at the FDA, she worked to protect patients participating in drug investigations. Regulations she developed required both safety and efficacy testing, informed consent from patients in clinical trials, and reporting of adverse events. Dr. Kelsey's efforts continue to make a difference for public health today.

By Jocelyn Isadore

References: Dr. Frances Kathleen Oldham Kelsey, Changing the Face of Medicine, https://cfmedicine.nlm.nih.gov/physicians/biography_182.html

Fintel, B, Samaras, AT, and Caria E, The Thalidomide Tragedy: Lessons for Drug Safety and Regulation, <https://helix.northwestern.edu/article/thalidomide-tragedy-lessons-drug-safety-and-regulation>

Brought to Life, Exploring the History of Medicine, Thalidomide, <http://broughttolife.sciencemuseum.org.uk/broughttolife/themes/controversies/thalidomide>

In the Limelight

Once again the Public Health Museum exhibited at the joint Annual Meeting of the Northeast Branch of the American Society for Microbiology (NEB-ASM) and the Northeast Association of Clinical Microbiology and Infectious Disease (NACMID).

The meeting was held on April 23-24, 2018 and there were workshop and lecture presentations on a wide range of subjects, such as Vaccine Update and The Public Health Response to Food Safety Issues. The Keynote Speaker, Harold Sanchez, MD, FACP, from the Hospital of Central Connecticut and the Yale School of Medicine spoke on "Five Percent of the World: The 1918 Spanish Influenza Pandemic.



Emy Thomas (center) manning the Public Health Museum booth.

Cadet Nurse Corps Members Honored



From left to right: Mary Schofield Maione, RN, Hamilton; Irma Canzanelli Adams, RN, Medford; Elizabeth Damon Beecher, RN, Weymouth. Picture courtesy of Barbara Poremba

Three nonagenarians (pictured left) from the U.S. Cadet Nurse Corp were honored at a tea at the Wenham Tea House on Friday, June 22, 2018. Dr. Barbara Poremba, Professor Emeritus of Nursing & Adult Nurse Practitioner at Salem State University organized the event in honor of the 75th anniversary of the founding of the US Cadet Nurse Corps. Attendees included nurses from a number of local hospitals and schools, as well as Linda Perry from the Public Health Museum.

Elizabeth Beecher (pictured left) gave a brief history of the Corps and spoke of her training and work experience. In the discussion following, it was noted that the Tea House was a perfect setting as one of the duties the nurses learned was how to serve tea.

Although the U.S. Cadet Nurse Corps operated under the U.S. Public Health Service and military from 1943 to 1948, it is the only uniformed service that was not given veteran status on discharge. Dr.

Poremba highlighted this status and asked participants of the tea to help call for passage of the HR 1168 the United States Cadet Nurse Corps Equity Act.

The Museum's Board of Director member Dorothy Hall, was also a member of the U.S. Cadet Nurse Corp. Her life and the story of the Corps was highlighted in an article in the Spring 2016 issue of our Newsletter: Public Health Matters. You can look up profiles of Cadet Nurses on the [US Cadet Nurse website](#).

2018 Public Health Week at the Museum



Nancy Clover, RN, COHN-S, FAAOHN, spear-headed an evening with the Massachusetts Association of Occupational Health Nurses and members of the Massachusetts Association of Public Health Nurses. “Stop the Bleed”, an initiative to save lives by preventing severe blood loss as a result of trauma, was featured.



Rodrigo Monterrey from the Office of Health Equity at the Department of Public Health moderated a panel discussion entitled “Achieving Health Equity.” Representatives of the Boston Public Health Commission, the Framingham Board of Health and Health Department and the Franklin Regional Council of Governments, participated with Dr. Monica Bharel, Massachusetts Commissioner of Public Health, providing the session introduction.



The Museum partnered with the Tewksbury Public Library for a two presentations. “The Great Influenza Pandemic of 1918 in Massachusetts” was given by Dr. Marian Moser Jones from the University of Maryland and “The American Red Cross and Clara Barton” was presented by Emily Thomas from Nichols College and the Clara Barton Birthplace Museum in North Oxford, MA.

A Day at the Public Health Museum

Getting to Know the Volunteers - Hollis Bodman

Hollis (Holly) Bodman has been an active volunteer at the museum since 2012. She was inspired to come to the museum by a friend and colleague, Emy Thomas, who was an active volunteer at the time (and continues today). Holly and Emy are microbiologists and past officers of the Northeast Branch of the American Society for Microbiology. Holly had just retired and decided that the Public Health Museum would be an excellent fit for her background and interests.

Holly was educated in the midwest. She earned her M.S. in Microbiology from Northwestern University in Evanston, ILL. Her career included work as a research scientist at Avco Corporation in Wilmington and Lowell, and most recently as Technical Director of the Clinical Microbiology Lab at Brigham and Women's Hospital.



Holly volunteers 4 hours per week as a tour guide but also is willing to take on other tasks as they arise. She particularly enjoys the walking tour of the Tewksbury Hospital campus as it allows for a unique historical perspective of what life may have been like for the many “inmates”, patients, and employees that lived there in the 1900s. Sharing with visitors her love of history and science and seeing them discover something new and fascinating about public health history makes her day. She enjoys the camaraderie amongst the team of volunteers that she works with, as well as the interaction with visitors who have a particular connection with Tewksbury Hospital. She finds a lot can be learned from them. For example, some visitors come to the museum with a story about a relative who was an “inmate” long ago, looking for more information, or past employees with interesting stories to tell.

Holly would like to see the museum expand its marketing so that more people can know about the museum. Her recommendations are for expanded outreach to local schools and colleges and increase in social media coverage. In her spare time Holly likes to spend time at her cottage in Rockport and visit family and friends across the country.

The Public Health Museum has a need for more volunteers to work on a variety of projects from archives to tour guides to writing. Our volunteers come from many different backgrounds and each one helps the museum to grow and develop in their own unique way. If you have an interest you want to explore, [contact us](#). Linda Perry is our Volunteer Coordinator.

By Mary Ferguson

Outbreak 2018! will be held August 6-10 at the Museum

Watch for highlights in the next Public Health Matters!

Outbreak is a FREE five-day interactive program that offers high school students the opportunity to learn the history and impact of public health while also introducing students to diverse public health careers.

Silver Lining to World War I

Progress that Changed Medicine

Dr. Mary Crawford, the only female doctor at the American Ambulance Hospital in France during World War I, said, “A war benefits medicine more than it benefits anybody else.” From 1914 to 1918 “The Great War” caused nearly 16 million military and civilian casualties and resulted in a myriad of new technology in warfare, including poison gas, field artillery, long-range cannons, barrage shelling, and machine guns. But, strides were also made in medicine during World War I.

During WWI nurses treated the symptoms of gas exposure and damaged limbs, becoming more systematic about triage. The use of mustard, phosgene and chlorine gas warfare required nurses to administer oxygen using facemasks and benzoin steam tents were used to help alleviate coughing and prevent pneumonia. Orthopedic injuries demanded that nurses apply the Thomas traction splint, a new invention that lowered the mortality rate of femur fractures from 80% to 20%. One nurse described the hospitals as “carpenter shops requiring a trick of carpentry and mechanics.” Nurses also categorized casualties into three levels (triage) so that care could be carried out more efficiently and effectively. Patients were categorized as: 1) requiring care but could return to duty; 2) needing hospital attention because they were more seriously injured; and 3) unlikely to survive regardless of medical care.



Treatments of injuries included limb amputations, wound disinfection, blood transfusions and surgical repair of artillery damage under anesthesia. Battlefields were often contaminated with manure-fertilized farm soil that contained *Clostridium perfringens*, the bacteria of gas gangrene. With no effective antiseptic or antibiotics to kill the bacteria immediate limb amputation was required to avoid death from gas gangrene. Drs. Alex Carrel and Drysdale Dakin created the Carrel-Dakin Method in which an antibacterial solution of hypochlorite of soda, trickled into the wounds from a jar hanging above the patient’s bed. With heavy blood loss due to machine gun wounds, trailblazing blood transfusions were conducted and rudimentary blood banks were established. Innovative facial reconstruction surgery was performed on jaws and noses, and restorative dentistry was advanced. Dr. George Crile created gas-oxygen anesthesia, allowing operations for longer periods of time than with ether or chloroform alone.



During the height of the war, Dr. Alexis Carel asked, “Science has perfected the art of killing: Why not that of saving?” As the 100th anniversary of the end of the Great War is approaching on November 11, 2018 (the 11th day of the 11th month at the 11th hour) we must remember that approximately 21 million soldiers and civilians were saved by medical advances made during WWI and these advances, the “silver lining” of WWI, changed medicine for generations to come.

by **Linda J. DiPersio**

THE PUBLIC HEALTH MUSEUM IN MASSACHUSETTS

Our Mission

The Public Health Museum is a non-profit educational and cultural museum. The Museum strives to preserve records and artifacts from our nation's public health history; educate the public about the achievements and contributions of public health; and inspire people to build upon the past and continue to advance the future of public health. Our Museum provides a space to explore public health artifacts, inspire future public health professionals, and foster community involvement.

Our History

Incorporated in 1990 and open to the public since 1994, the Museum has the distinction of being the first of its kind in the nation. Massachusetts has a rich history of leadership and notable firsts in the birth of our nation. In the field of public health, Massachusetts was the first to record vital statistics; the first to implement a sustained board of health; and the first to implement a communicable disease surveillance system, among many others.

MUSEUM HOURS

Wednesdays, Thursdays and the first Saturday of each month 10 AM to 2 PM
OR by appointment

NEW SUMMER HOURS

May through September, Wednesday 4-8 PM;
Thursday 10 AM - 2 PM; first Saturday of the month 10 AM - 2 PM OR by appointment

WALKING TOURS

Seasonal (May through October, weather permitting), advanced registration required.
Third Wednesday at 6 PM and first Saturday at 10 AM OR by appointment

ADMISSION

\$5.00 per person for museum
\$10.00 per person for walking tour

Please feel free to forward this newsletter to others who may be interested in the Public Health Museum.

To subscribe to this newsletter, please reply with SUBSCRIBE to Newsletter in the subject line.

To unsubscribe, please reply with UNSUBSCRIBE in the subject line.

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