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Healthcare Heroes In History

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We look to healers in history for inspiration and encouragement as we thank the #HealthcareHeroes serving New Jersey today. #NJThanksYou.



Prehistory on the Frontlines of Modern Medicine

Liberty State Park (https://www.njparksandforests.org/parks/libertystatepark.html)

A familiar sight in the summer months along many New Jersey beaches and shorelines, horseshoe crabs have become an important species for many reasons including their contributions to medicine and pharmaceuticals. The bright blue blood of horseshoe crabs contains amebocytes, a prehistoric version of white blood cells which fight infections. A component in the amebocytes, known as limulus amoebocyte lysate (LAL), clots in the presence of certain toxins.



Horseshoe crabs are harvested and bled of about 30% of their blood, and then returned to their habitats. This blood must be collected carefully to ensure as many crabs as possible survive the ordeal. LAL can be used to test newly-developed medications and medical devices for contamination and to ensure they are sterile before use. Rabbit blood was originally used but it could not detect all impurities.

Horseshoe crab blood remains in use today, and was used to test for impurities in the recentlydeveloped vaccinations for COVID-19.







Battle of Princeton

Princeton Battlefield State Park (https://www.niparksandforests.org/parks/princetonbattlefieldstatepark.html)

Sarah and Thomas Clarke's house transformed into a makeshift hospital as they helped care for men wounded in the Battle of Princeton which took place on lands comprising their farm on January 3, 1777. **Dr. Benjamin Rush**, Surgeon General of the Continental Army, joined them in Princeton following the battle. Though a Signer of the Declaration of Independence, Dr. Rush provided care for both American and British soldiers.

Records also note the presence and work of **Susannah**, a woman enslaved to the Clarke family, for her services to the wounded. Susannah was manumitted two years after the Battle of Princeton, gaining freedom from slavery on her 30th birthday.

Battle of Monmouth

Monmouth Battlefield State Park (https://www.njparksandforests.org/parks/monmouthbattlefieldstatepark.html)

Dr. William Read, of Georgia, traveled with the Continental Army under General George Washington and witnessed the carnage during the Battle of Monmouth on June 28, 1778. His eyewitness testimony of the fighting, including the actions of Gen. Washington himself, provides some of the most vivid accounts of the battle, especially the scenes of the battlefield and the sufferings of the combatants. In its aftermath, Dr. Read lent his aid in the care of the wounded and dying of both sides.

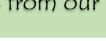
Surgeon **Samuel Adams, Jr.**, a Massachusetts native and son of the famed Patriot of the same name, served with Crane's Regiment of Continental Artillery and was also at the Battle of Monmouth. His diary provides key insight into the movement of forces during the Monmouth campaign, as well as a detailed accounting of the conditions on the march to and from Monmouth. His entry for the day of battle provides a significant summary of the actions of the day.

Dr. John Cochran, an Irish immigrant who was at one time a resident of New Brunswick and founder of the New Jersey Medical Society in 1769, served at the Battle of Monmouth as Physician & Surgeon General for the Middle Department of the Continental Army. In this role, and under Gen. Washington's direct orders, Dr. Cochran organized and directed the care of the dying and wounded during and after the battle. In 1780, he was promoted to Surgeon General of the entire Continental Army. One year later, Dr. Cochran was elevated to the position of Director General of the Hospitals of the United States, serving as the nation's highest medical officer until the end of the Revolutionary War.









State Historic

Cholera and the Canal

Delaware and Raritan Canal State Park (https://www.nj.gov/dep/parksandforests/parks/drcanalstatepark.html)

In 1832 panic hit New Jersey as cholera – brought over from Europe – crossed the Canadian border into upstate New York and sailed into the port cities of New York City and Philadelphia. Once introduced, it quickly moved overland as it passed from infected person to person. "Vibrio cholerae" is a highly contagious waterborne disease, spread by bacteria and thrives in crowded, unsanitary conditions. Like COVID-19 today, little was known about the disease at the time. Left untreated, it ravages the body quickly causing diarrhea, violent vomiting, fever/sweating and cramps. Many of those afflicted in 1832 died of extreme dehydration within hours of experiencing the first symptoms. Needless-to-say, the fear it instilled that summer was no doubt similar to our own experience with COVID in 2020.

Construction on the D&R Canal, a difficult, dirty undertaking, was in full swing when the first cases of the disease were reported in the state. Many of the canal laborers lived in close quarters in makeshift, unclean camps along the route of the project without access to clean drinking water – it was the perfect storm! By summer the disease was raging in New Jersey including along the route of the D&R project hitting workers hard. Talk of pandemic, much like today, was everywhere; counts of the rising numbers of deaths, horrific descriptions of illness, homemade remedies and recommendations to avoid getting sick appeared regularly in local newspapers.

Then, as now, the public looked to the medical profession for help. Many local doctors stepped up to the plate forming boards of health, establishing hospitals to treat the sick and providing care where needed at their own peril. **Dr. John Lilly** of Lambertville was among them. Approached for help by Ashbel Welch, engineer assigned to oversee the construction of the D&R Canal's feeder canal, Dr. Lilly offered a property he owned that was not yet completed to assist with the sick and dying canal laborers. With Canal Company funding, a roof was completed on the structure and a hospital was created where he tended to Lambertville's cholera victims including many D&R laborers.

Dr. Samuel Ladd Howell did the same for the Princeton community and canal workers at several makeshift hospitals, including his own home, in the town's "old market" on Main Street, in an open lot behind the Reverend James Alexander's home and in Trenton as reported in the New Jersey Gazette on August 3, 1832:

"On Tuesday night, last a company of some 10 or 12 laborers on the Canal, arrived in this City (Trenton) from



Griggstown, where the disorder, as we understand, has prevailed with great malignancy. – In the course of the night, two of them were taken with Cholera, and from the report of **Dr. Howell**, who was called to attend them, we learn that one died the next morning, and that the other is in a fair way of recovery."

Laborers were also treated in Trenton and New Brunswick hospitals and elsewhere across the state by many, as yet unidentified, physicians. All were healthcare heroes of their day!









"Black Doctor of the Pines"

Dr. James Still Historic Office and Education Center (https://www.njparksandforests.org/historic/drjamesstill.html)

Dr. James Still was a self-taught physician in nineteenth-century Burlington County. Dr. Still was born at Indian Mills in 1812 as an African American freeman. His parents Levin and Charity Still were African Americans formerly enslaved in Maryland.

Dr. Still practiced folk remedies using the healing powers of herbs and plants to treat his patients. Born into poverty and receiving minimal formal education, this determined and self-educated man became not only a well-respected and trusted healer but also one of the largest landowners in Burlington County.

Today the historic office of the "Black Doctor of the Pines" is a museum and education center.

"Never Horrified Hereafter"

Hancock House State Historic Site (https://www.njparksandforests.org/historic/hancockhouse/hancockhouse-legacy.htm)

Cornelia Hancock was the daughter of Thomas and Rachel Nicholson Hancock, and great-granddaughter of Judge William Hancock, Jr. who lived during the Revolutionary War at Hancock House State Historic Site. Born on February 8, 1840, Cornelia was educated in Hancocks Bridge and Philadelphia. She taught school in Hancocks

Bridge at the Alloways Creek Meetinghouse school called "Buttonwood Academy."In the midst of the American Civil War, and against her parent's wishes, Cornelia at the age of 23 left New Jersey for Gettysburg with her brother-in-law Dr. Henry T. Child to serve as a nurse after the battle there. During her time in Gettysburg, Cornelia wrote letters back home to her mother and sister describing her experience in great detail. In one letter Cornelia wrote to her sister, she reflects, "I feel assured I shall never feel horrified at anything that may happen to me hereafter."

Cornelia served as a nurse through the remainder of the Civil War at several different hospitals including a Contraband Hospital in Washington, D.C. Her experience at the Contraband Hospital led her to open the Laing School for freed slaves in South Carolina after the war. Cornelia worked there until 1876 when she returned home to care for her father. Cornelia continued her charity and social work in Philadelphia, founding the Children's Aid Society of Philadelphia and helping to plan a model workers' community called Wrightsville, until her death on December 31, 1927.









America's Poet of Democracy

Walt Whitman House State Historic Site (https://www.njparksandforests.org/historic/whitman/index.html)

In December of 1862, **Walt Whitman**, by then already a famous poet known as author of "Leaves of Grass", was shocked by the news that his brother George, a first lieutenant in the Union Army, was wounded in the Battle of Fredericksburg. He left Brooklyn to search for his brother and eventually found him in a field hospital in Falmouth, Virginia. He was relieved that George only sustained a minor wound to the jaw and was on the mend. After spending two weeks in the camp, he was asked to help convey wounded soldiers to the hospitals in Washington, D.C. There he would spend the remainder of the Civil War volunteering as a nurse and witnessing first-hand the suffering of the war. His experiences and those of the soldiers for whom he provided care are reflected in his poetry "The Wound-Dresser" and "Come up From the Fields Father" and prose works "A Glimpse of War's Hell Scenes" and "Memoranda During the War".

Walt Whitman found federal employment as a clerk and spent his free time volunteering, visiting the wounded soldiers. The work that he did was of great importance to the young men who had been through a harrowing experience. Walt was there to listen, talk, and help when he could. He would sit with individual soldiers and tend to them one-on-one, talking with them, helping them write letters home, and sometimes just quietly being with them. Some days he would show up bearing gifts such as candy, pencils and paper, even books to help brighten the long and dreary days stuck in bed.

Quietly, Walt also supplied them with small amounts of money to help those who survived get back on their feet. Walt collected donations from friends in Massachusetts and New York to give to the penniless soldiers. According to his notes, Walt over the course of his time in the hospitals was able to hand out a couple of thousand dollars among the injured. While the money he raised was of great importance, Walt believed his greatest contribution was being able to memorialize some of their stories in his writing. Through poems and his own journal entries, he was able to tell the stories of many of the boys who lost their lives fighting for the Union. In his prose collection "Specimen Days and Collect" Walt laments that he was not able to write down and share the story of every single soldier that he met, but he certainly tried.

Walt Whitman later came to Camden in 1873 and lived with his brother George before buying his own house, the only house ever owned, on Mickle Street. "I shall never be sorry I was left over in Camden", Walt Whitman wrote. "It has brought me blessed returns". That house Camden is preserved today as the Walt Whitman House State Historic Site.







Healthcare Heroes and Essential Workers Today

History Activities at Home (https://www.njparksandforests.org/education/historic_activities.html)

Healthcare providers and essential workers are making history every day in New Jersey.

Interview a healthcare hero or essential worker among your family, friends, or community. From your interview, preparing a brief account of your healthcare hero's work. Take a photograph or draw a picture of your healthcare hero too. With permission from your interview subject, share your "Highlight From History" online using #NJThanksYou. On Facebook and Instagram, tag the State Park Service @NewJerseyStateParks. Check out our online activity "Healthcare Heroes at Home" for a guide. (https://www.njparksandforests.org/education/docs/hh-Healthcare%20Heroes.pdf)



