

Rhode Island Pioneers of Public Health: Edwin M. Snow, MD, and Charles V. Chapin, MD

MARY KORR

Brown University graduates **EDWIN M. SNOW, MD**, (1820–1888), and **CHARLES V. CHAPIN, MD**, (1856–1941), were public health pioneers of their eras. From the Civil War to World War II, they were at the forefront of the medical, public health and scientific landscape, in Rhode Island and nationwide.

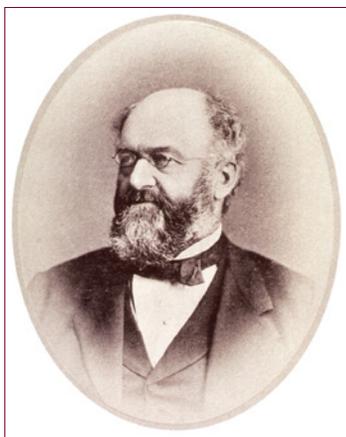
Dr. Snow

Dr. Snow, a native of Vermont, came to Rhode Island to study at Brown University, graduating in 1845. He returned to the state after earning his medical degree from the College of Physicians and Surgeons in New York City, and began his career as a physician at the Providence Dispensary in 1851.

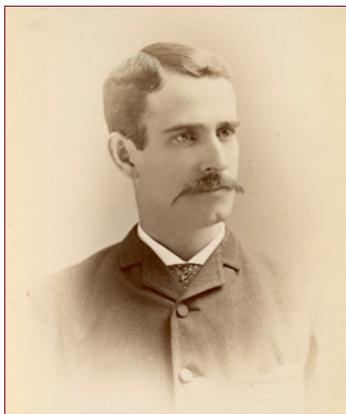
During a cholera outbreak in 1854, he investigated its relation to local sanitary conditions, and in a presentation to the Providence Medical Association in 1855, and a subsequent letter to the City of Providence, on the statistics and causes of the Asiatic cholera, he described the Moshassuck River in Providence, an industrial waste dumping ground, as “filthy as any common sewer; the stench arising from it at times pervades the whole neighborhood and at any time, dogs, cats and hogs may be seen in the water in every stage of decomposition.” He concluded the resulting 9/10ths of the 159 deaths were preventable, citing water-borne causes at the location near the canal and the convergence of two rivers.

As a result of his investigations, Dr. Snow was instrumental in organizing the city’s Department of Health, and was named Providence’s first superintendent of health in 1856. One of his first tasks was to set up a smallpox vaccination program. In his 28-year tenure, he signed over 34,000 vaccination certificates for school children.

In 1857, in a report to the Mayor of Providence and the Board of Aldermen, Dr. Snow recommended a municipal water supply, a system of sewers and a waste treatment facility, a housing law,



Dr. Edwin M. Snow served as Providence’s first superintendent of health. [NATIONAL LIBRARY OF MEDICINE]



Dr. Charles V. Chapin in 1885, when he taught as a professor of physiology at Brown University. [BROWN UNIVERSITY]

and the elimination of privies to prevent the spread of cholera, dysentery and typhoid fever. The city would eventually adopt his plans, though not as quickly as Dr. Snow would have liked.

American Public Health Association

Dr. Snow was also one of the founders of the American Public Health Association (1872) and served as its fourth president. In 1877 (the year before Rhode Island established a state Board of Health), he addressed the national association’s annual conference, and stressed the key role Boards of Health led in “the organized and systematic investigation of the numerous causes of disease and death that exist in every community in every state.”

Dr. Snow died in 1888, at the age of 68. In an obituary in the *Transactions of the Rhode Island Medical Society*, an early precursor to the *Rhode Island Medical Journal* (RIMJ), he was described as “not merely a physician, he was a man of science as well. He believed it his duty to investigate for himself as far as possible the basis of theory and practice. He got his ideas from facts [and his] scientific attainments were equally by his perseverance and public spirit.”

Dr. Chapin

Charles Value Chapin was born in Providence on Jan. 17, 1856, the son of Dr. Joshua Bicknell Chapin and Louise Value Chapin. Educated in the city’s public schools, he attended college at Brown University, graduating in 1876, and where he later taught physiology. He earned his medical degree at the Bellevue Hospital Medical College in New York City, in 1879, and returned to the city of his birth.

Several years later, in 1884, at the young age of 28, he was appointed

Dr. Charles V. Chapin sat for his portrait at age 70. He served as Providence’s second superintendent of health from 1884 until 1932. [NATIONAL LIBRARY OF MEDICINE]





Photo shows corn growing in field outside Providence City Hospital, which opened in 1910. [PROVIDENCE PUBLIC LIBRARY DIGITAL COLLECTIONS]

Providence's second superintendent of health, upon the resignation of Dr. Snow, and served in that capacity for almost five decades.

In 1910, Dr. Chapin published his seminal work, *The Sources and Modes of Infection*, which became a public health classic and secured his preeminence in the nascent field of epidemiology. Largely through his efforts, the Providence City Hospital (later renamed the Charles V. Chapin Hospital) opened that year for the treatment of patients with communicable diseases. Here Dr. Chapin instituted the aseptic surgical techniques which he had observed at the Pasteur Hospital in Paris.

He also called for the establishment of sick baby clinics, the implementation of bacterial standards for the milk supply, dental dispensaries for children, a medical service for the care of the sick poor in their homes, and increased wards for tuberculosis patients.



lectured widely on his work advocating for child labor reform. This led to the passage of the Keating-Owen Child Labor Act of 1916, a federal law that restricted child labor.

(Left) Backyard, Spruce Street, Providence, RI. Lewis Hine, Child Welfare Exhibit 1912–1913. [LIBRARY OF CONGRESS]



Housing conditions, Elm St., Pawtucket, RI. Lewis Hine, Child Welfare Exhibit 1912–1913. [LIBRARY OF CONGRESS]



Backyard and privies in terribly filthy condition, 76–78 Borden St., Providence, RI. Lewis Hine, Child Welfare Exhibit 1912–1913. [LIBRARY OF CONGRESS]

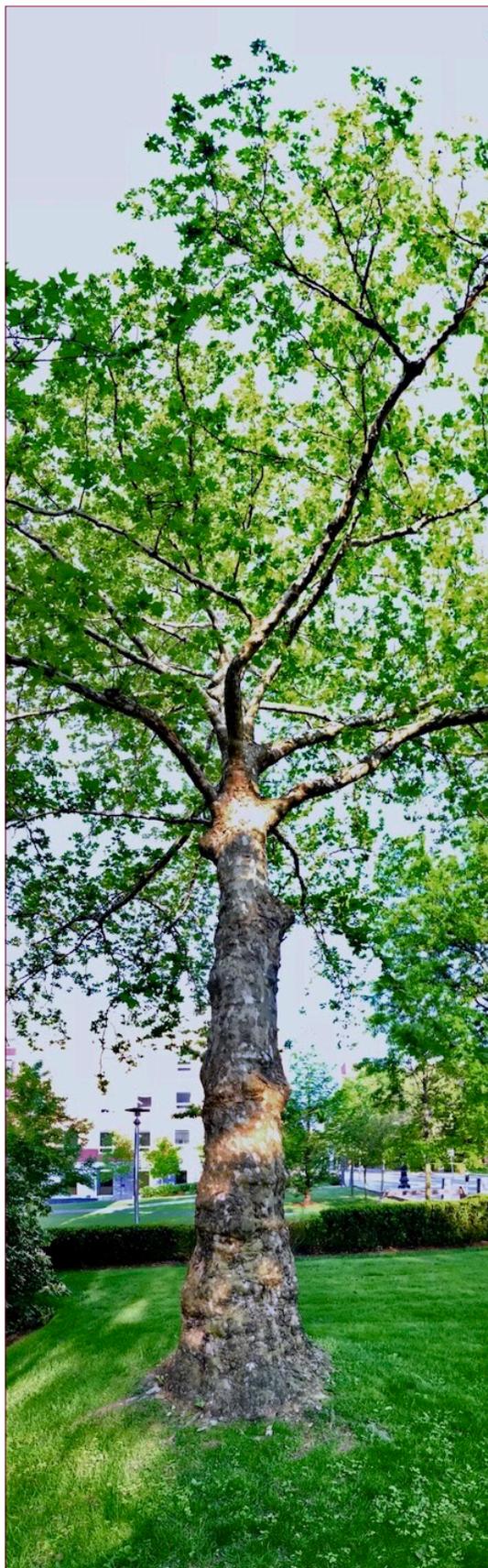
Schools of Public Health open

At the same time, the need for the expansion of public health programs became evident nationwide, and in 1916 Johns Hopkins University organized the first degree-granting School of Hygiene and Public Health. This was followed by the Harvard-MIT School for Health Officers, where Dr. Chapin lectured, from 1913–1922. The latter affiliation dissolved and the Harvard School of Hygiene and Public Health opened; here Dr. Chapin lectured from 1923–1935.

He became recognized as revolutionary for applying stringent scientific methodology to public health matters. According to the *American Journal of Public Health* in March 1941, “Dr. Chapin’s annual reports of the health department of the City of Providence are documents of unique value. These reports show the mind of Chapin at work: scrupulous care in collection of information, painstaking tabulations and segregations of data, penetrating questions as to their meaning or lack of meaning, with conclusions reached only when it is evident that they must inevitably be reached.”

In Dr. Chapin’s contribution to a volume commemorating the 50th anniversary of the founding of the American Hospital Association, *A Half Century of Public Health*, in 1921, he wrote: “Figures do not measure the terror of epidemics nor the tears of a mother at her baby’s grave, nor the sorrow of the widow whose helpmate has been snatched away in the prime of life. To have prevented these not once but a million times justifies our half century of public health work.”

During Dr. Chapin’s administration the death rate in Providence dropped 30 percent and infant mortality was reduced by 50 percent. Considered the “Dean of City Health Officials,” he served as president of the American Public Health Association in 1927 and the first president



of the American Epidemiological Society. He was awarded the Public Welfare Medal from the National Academy of Sciences in 1928.

Dr. Chapin passed away in 1941 at the age of 85, survived by his wife, Anna Balch Chapin, and predeceased a year earlier by his only child, Howard. The late **SEEBERT J. GOLDOWSKY, MD**, longtime editor-in-chief of RIMJ, reflected on Dr. Chapin in the August 1979 issue: “His credo is best expressed in his words: ‘Science can never be a closed book. It is like a tree, ever growing, ever reaching new heights. Occasionally the lesser branches, no longer giving nourishment to the tree, slough off. We should not be ashamed to change our methods, rather we should be ashamed never to do so. We should try new things, but should show common sense about it.’”

Like the Tree of Hippocrates on the Brown campus, the legacies of these two public health pioneers stand tall and strong, their roots spreading outward and the scientific shoots evolving and reaching new heights. ❖

Author

Mary Korr, *Rhode Island Medical Journal* Managing Editor, 2013–2026.

A seedling of the platanus tree that Hippocrates taught under on the Greek island of Kos was given to Dean **Stanley M. Aronson, MD**, upon the founding of the Brown Medical School in 1972. The Tree of Hippocrates, also known as the Aronson Tree, was planted in front of Arnold Lab on the Brown campus and stands there today.