

A HISTORY OF THE STATE OF NEW JERSEY

DEPARTMENT OF HEALTH LABORATORIES

(1865-1950)

PRE-ORGANIZATION PERIOD

The Legislature of 1865-6 appointed a State Sanitary Commission of five men, who made a report on general sanitary conditions in 1866-7. No further action was taken thereafter until the Legislature of 1873-4 passed an Act establishing a commission of six men for a period of one year, whose report was printed and circulated, and carried in the press. As one of the results of this report a sanitary convention was held in October 1875 for the purpose of considering the best means for promoting and preserving the health.

FORMATION OF THE FIRST BOARD

In the winter of 1876-7 the Legislature appointed a State Board of Health composed of nine members, who were first called together by Governor Bedle for organization on May 22, 1877. In their Report for 1878 appears the statement "The attention of the Board has been invited to adulteration and impurities of food, drinks, medicine and illuminating oil. There is a demand for severe legislative enactments against the adulteration of food."

ANALYTICAL WORK BY PRIVATE LABORATORIES

In the Report for 1880 mention is made of the testing of a sample of kerosene by Professor Cornwall of Princeton. Dr. William K. Newton was appointed Analyst and Milk Inspector. Under the laws of 1881 the Board appointed a Council of Analysts of six men located

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in towns from Paterson to Burlington. Albert R. Leeds, Ph. D., a member of the Council, made a report of analyses of a wide variety of food samples analyzed during 1879 and subsequent years.

The Report of 1883 gave a long list of analyses made in the John C. Green School of Science of Princeton College by Professors Cornwall and McCay. Shippen Wallace, Analyst, first reported his analyses in this issue. The Report of 1884 gave the name of Dr. Wm. K. Newton as State Inspector of Milk; and Prof. H. B. Cornwall, Shippen Wallace and Dr. Newton as the Committee of Analysts. The Report of 1886 noted the appointment of George W. McGuire as assistant milk inspector.

#### DEVELOPMENT OF EARLY LAWS ON ADULTERATION

The 1888 Report stated that the first general law as to adulterations was to be found in Chapter 217 of the Laws of 1881, supplemented by Chapter 139 of the Laws of 1883. The 1889 Report cited Chapter 136 of the Laws of 1887 empowering the State Dairy Commissioner, Dr. Newton, to enforce the provisions of the Acts. An Act adopted in 1888 provided that "the Chemists of the State Agricultural Station shall analyze all samples of milk, butter and farm products that may be submitted by the State Dairy Inspector."

#### THE FIRST STATE HEALTH LABORATORY

The 1895 Report presented the following statement: "The progress made in applying bacteriological methods for the diagnosis of tuberculosis and diphtheria, the two most fatal diseases in New Jersey,

led the Board, in January 1895, to endeavor to secure the establishment of a central laboratory where facilities would be afforded for the early detection of these affections, and make it available for all the sanitary districts in the State. A committee of this Board was appointed to prepare and present to the Legislature a bill providing for the construction, equipment and maintenance of a laboratory of hygiene. This was done, but the appropriation was not granted. The manifest advantage to the State which would attend the establishment of this service, and the urgency of the matter, caused several public-spirited citizens to authorize the erection and furnishing of a laboratory. The work was speedily proceeded with, and we are now able to report that the building is finished and ready for occupancy, and that the work for which it is intended will begin within a few weeks. It is estimated that the cost of the building and equipment was \$2,500, and the annual cost will be as follows: one bacteriologist \$2,000; one assistant in the laboratory \$500; laboratory material \$300.

The building is situated on lands owned by the College of New Jersey, in the Borough of Princeton. The central location will permit quick communication with all parts of the State. The Board has secured the services of Mazyck P. Ravenel, M.D. as director of the laboratory.

The 1896 Report stated that the laboratory for bacteriological diagnosis was opened in December 1895, but that the examination of specimens did not begin until April 1896. Request to the 1896 Legislature for \$3,000 per year was denied. Private funds were again made available to continue the activities. Request to the U.S. Postmaster-General for use of the mails for disease specimens was finally granted on February 5, 1896, and stocks of containers were sent to 43 cities and towns. The 1897 Report stated that the laboratory was in operation under the direction of Dr. B. Meade Bolton, funds having been granted by the Legislature!

#### REPORTS OF SPECIMENS EXAMINED IN THE LABORATORY

In 1897 it was reported that in previous years there had been examined 627 specimens for diphtheriae, 253 for tuberculosis and 7 miscellaneous. Under Dr. Bolton's incumbency from the middle of September 1897 to December 11, there were examined 253 specimens. In the 1908 Report Dr. Bolton stated that in addition to specimens for diphtheria, tuberculosis and typhoid there were also 4 for malaria and 20 for gonorrhoeae. The 1899 Report gave Dr. Edwin C. Bolton as director. A total of 2,380 specimens were examined, consisting chiefly of the five diseases above mentioned.

#### IMPROVEMENT IN LAWS AND PERSONNEL

The 1901 Report stated that "At the last session of the Legislature an Act was passed reenacting certain provisions of the Law--- to prevent the sale of unwholesome and adulterated foods and drugs."

The Board decided that "A new committee shall be appointed to conduct suitable examinations," written and oral, for future fitness for positions under the Board. During this year 3,955 bacteriological specimens were examined, with H. O. Baldwin in charge.

The 1902 Report contained the first report of the Chief Inspector of Food and Drugs, George W. McGuire, dated October 31, 1902. The number of samples collected was 3,258, from which 166 complaints were entered in the Courts; \$4,900 fines were paid. There were examined 387 samples of drugs, of which 240 (62%) did not conform to the standards of the U.S. Pharmacopoeia.

#### CONSOLIDATION OF LABORATORIES

The laboratory at Trenton had been located at the State House. Alterations in the State House preparatory to the erection of a new Senate Chamber required the removal of the laboratory from the premises, and consolidation of the two laboratories was proposed.

In the 1903 Report H.O. Baldwin stated that the bacteriological laboratory was removed from Princeton to Trenton. Joseph A. Moran had been employed in the laboratory during September 1902.

R.B. Fitz-Randolph, Director of the Laboratories, stated that "The Bacteriological Laboratory of the State Laboratory of Hygiene was established February 1896 at Princeton. In August 1903 the laboratory was removed to 147 East State Street, Trenton (Broad St. Bank Bldg.). In February 1903 the bacteriological department was consolidated with the department of foods and drugs, established in

1901, which occupies adjoining rooms in the same building." John V. Mulcahy was employed in April 1903. The food and drug report gave a total of 3,772 samples examined, including 184 water samples; suits totaled 128, and fines collected totaled \$4,308.30. The bacteriological department reported 6,730 specimens examined.

#### NEW LABORATORY IN THE STATE HOUSE

The 1907 Report stated "The new laboratory in the State House is now nearing completion. An assistant chemist, whose duties consist in the examination of water and inspection of sources of water supply, was appointed in June 1907. In 1908 the Laboratory of Hygiene added a Division of Sewerage and Water Supplies. Three food and drug inspectors were employed. The Chief and two food and drug chemists performed food and drug analyses. H. M. Herbert was Chief of the Division of Sewerage and Water Supplies, and Francis E. Daniels the Chemist and Bacteriologist.

The 1909 Report stated that two analyst inspectors were employed, one full time in the laboratory and one on water analysis and inspection. A Chief and two chemists were engaged in food and drug analyses. R. B. Fitz-Randolph was appointed Chief of the Division of Food and Drugs on May 26, 1908, and continued to supervise the State Laboratory of Hygiene.

The office of the State Sewerage Commission was abolished by the Legislature, and all their duties transferred to the Board. These activities and the inspection of water supplies by the Board were combined in the Division of Sewerage and Water Supplies. A Division of Creameries and Dairies was established on May 26, 1908,

with George H. McGuire as Chief. In 1910 the Division of Food and Drugs was operated by the Director, two chemists and three inspectors; the Division of Sewerage and Water Supplies by four analysts, three of which also made field inspections and three inspectors who patrolled streams and reported pollution.

#### FIRST COMPLETE ROSTER OF EMPLOYEES

In the 1911 Report appeared a complete list of paid personnel totaling 45. These were: Bruce S. Keator, M.D., Secretary and Executive Officer; A. Clark Hunt, M.D., Assistant Secretary; Charles J. Merrell, Chief Clerk, Division of Vital Statistics; David S. South, State Registrar and Chief; Walter R. Scott, Assistant to the Chief; Albert J. Shull, Clerk; Mrs. E. C. Closson, Clerk; Miss K. M. Vare, Clerk and Tabulator; Miss E. S. Merrell, Clerk and Stenographer. Division of Medical and Sanitary Inspection: A. Clark Hunt, M.D., Chief; David C. Bowen, Sanitary Inspector; William H. Marcussen, Sanitary Inspector; Millard Knowlton, M.D., Tuberculosis Inspector; Norval P. Closson, Elizabeth Wilkes and Edmund R. Outcalt, Clerks and Stenographers.

#### DIVISION OF FOOD AND DRUGS

R. B. Fitz-Randolph, Chief of Division and Director of the State Laboratory of Hygiene; William G. Tice, Assistant to the Chief; John V. Mulcahy, Bacteriologist; Henry W. Denny, Chemist, Christopher L. Devitt, Chemist; William S. Townsend and Louis Tremallo, Inspectors; Isaac H. Shaw, Slaughter-House Inspector; Walter W. Scofield, Jr., Assistant; Frank Yates, Clerk and Stenographer; Joseph A Moran,

Laboratory Assistant, Antoinette Foy, Laboratory Assistant.

DIVISION OF CREAMERIES AND DIVISION

George W. McGuire, Chief; A. I. Goehrig, Assistant to the Chief; S. S. Vandruff, Inspector; Frederick C. Robertson, M.D., Inspector; William J. Willsey, Inspector; Miss Florence E. Derbyshire, Clerk.

DIVISION OF SEWERAGE AND WATER SUPPLY

Francis E. Daniels, Chief; George T. Palmer, Assistant; Chester G. Wigley, Assistant Sanitary Engineer. Howard B. Warren, Chemist; Harry P. Letton, Field Assistant; Calvin N. Harrub, Field Assistant; Clarence W. Sparmaker, Fred B. Worman, and Charles B. Robinson, Inspectors; Louise MacMillan and Charles A. Macdonald, Jr., Clerks and Stenographers.

REORGANIZATION OF 1913

The committee of the Board appointed three years ago presented a plan for equitable and uniform salary increases. It was recommended that the Bureaus be formed to take the place of Divisions. Chiefs' salaries were set at a minimum of \$2,000; new Clerks were employed at \$600. There were 61 employees.

The report of 1914 stated that the shellfish laboratory boat "Inspector" was at work eight months of the year. Two new Chemists were employed. Employees totaled 64.

REORGANIZATION OF 1915

The State Department of Health succeeded the State Board of Health, which was abolished in 1915. Six bureaus, the Executive Staff, two Divisions and the Laboratory of Hygiene were in operation. Of the 61 paid employees in 1915, seven remain in the service in

1950; Scott, MacDonald, Eakins, Croft, Bacon, Applegate and Moran.

#### REORGANIZATION OF 1925

Henry B. Costill, M.D., was appointed Director of Health succeeding Dr. Jacob C. Price, at the reorganization meeting of July 7, 1925. The Bureau of Bacteriology, John V. Mulcahy, Chief, reported the examination of 48,342 specimens. The Bureau of Chemistry, John E. Bacon, Chief, reported the examination of 4,817 samples of foods and drugs, and 4,009 samples of water and sewerage. Ten Bureaus were in operation.

The Department established a field shellfish laboratory at Bivalve in Cumberland County in October 1933, a second field laboratory at Tuckerton in Ocean County in 1934; and a third field laboratory at Highlands in Monmouth County in 1936, which was subsequently moved to Newark. A Bacteriologist has been maintained at each laboratory

#### REPORTS OF 1935 AND 1945

The 1935 Report noted that J. Lynn Mahaffey, M.D., was Director of Health. Ten Bureaus were in operation. The Bureau of Bacteriology reported the examination of 89,673 specimens, of which 49,762 were for syphilis. The Bureau of Chemistry reported the examination of 18,729 samples. The Bureau of Food and Drugs reported that there were examined in the boat laboratory and the three shellfish laboratories 1,921 samples of water and 280 samples of shellfish; the personnel of these laboratories also conducted 1,205 inspections and investigations.

The 1945 Report noted the operation of 15 Bureaus and Divisions. Mr. John V. Mulcahy passed away in August 1944, and was succeeded by John H. Spooner, Jr. as Chief of Bureau of Bacteriology. The Bureau of Industrial Health, with seven employees, reported that its laboratory had been equipped with special apparatus for determining the toxicity of industrial materials; 227 samples were analyzed and 194 determinations made in the field. The Bureau of Bacteriology reported the examination of 276,610 specimens, of which 236,865 were for syphilis. The Bureau of Chemistry reported the examination of 17,239 samples. The Bureau of Food and Drugs reported the examination of 2,356 samples in the shellfish laboratories.

REPORT OF 1948 (FOR THE YEAR ENDING JUNE 30, 1948)

Daniels Bergsma, M.D., M.P.H. took office as the first State Commissioner of Health on June 1, 1948. Eight Bureaus and eight Divisions were in operation. The Bureau of Bacteriology reported the examination of 341,790 specimens, of which 282,748 were for syphilis. The Bureau of Chemistry reported the analysis of 6,339 samples in the food and drug laboratory and 8,871 samples in the water and sewage laboratory. The Bureau of Food and Drugs reported the analysis of 1,013 samples of shellfish and 1,460 samples of water. The Division of Adult and Industrial Health reported the analysis of 1,309 samples.

The 1948-1950 Reorganization of the Department by the Public Health Council and Dr. Daniel Bergsma, M.P.H., State Commissioner of Health, as authorized under the new State Constitution and Health

Laws, combined all of the old and newly projected activities into six bureaus. All the laboratory functions were united in the Bureau of Laboratories, A.J. Casselman, M.D., Dr. P.H., Director.

The bacteriological and chemical laboratories remained on the fourth floor of the State House, having been expanded to occupy all the available space on the floor since their removal to this location in 1908. The industrial hygiene laboratory was located in the basement of 19 West State St., Trenton. Three field laboratories were maintained at Newark, Tuckerton and Bivalve.

(Compiled from the Annual Reports of the N.J. State Department of Health by the late Edwin Applegate. Mr. Applegate's 40 year career with the New Jersey State Department of Health began as an Assistant Chemist in 1913 and terminated as a Principal Chemist on his death in 1953).