The Eighteenth General Assembly enacted "An Act, Chapter 151., to establish a State Board of Health in the State of Iowa to provide for collecting of vital statistics and to assign certain duties to local boards of health and to punish neglect of duties." This was signed by Governor John H. Gear on March 26, 1880.

The Act provided that the Board consist of nine members, one of whom should be the Attorney General (by virtue of his office), one civil engineer, and seven physicians. The term of office to be seven years, and in the case of physician members the term of one should expire each year.

At the first meeting of the Board held at the State House, Des Moines, on May 5, 1880, Dr. William S. Robertson of Muscatine was elected president, and Mr. L. F. Andrews, secretary. The election of Dr. Robertson as the first president was a fitting recognition of his efforts as State Senator in securing the passage of the Act creating the State Board of Health. At the time he was also Professor of Theory and Practice of Medicine in the Medical Department, State University of Iowa, Iowa City. On taking the chair he addressed the Board as follows:

"It is a subject of congratulation, that the last legislature has placed our State abreast of so many of her sister states on the great work of sanitary progress, by creating a State Board of Health, which may inaugurate such measures as will materially limit the spread and reduce the mortality of many of the diseases of this country. Let it be our endeavor by wise and timely suggestions so to mold popular opinion and so instruct the masses in the elements of sanitary science that all may recognize the wisdom in the enactment of the health law which shall give them purer water, better drainage, better ventilated homes, more healthy food, and longer life - all to be desired. In conclusion, gentlemen, let me express the hope that the operation of this Board in the sanitary measures it may inaugurate and carry out, may so demonstrate the wisdom of its creation, that it may prove a blessing to the whole state and that with advancing years it may develop a strength and influence for good which shall make Iowa one of the most salubrious, as it is one of the most prosperous states in our confederation."

The annual appropriation for the first State Board of Health was $5,000.00 with the provision that the Secretary's salary should not exceed $1200.00 per year. The following year the law was changed to require the secretary to be a physician. Mr. L. F. Andrews, who had been serving as secretary then was elected Assistant Secretary and served as such for eighteen years.
At the meeting on May 5, 1881, Dr. Robert J. Farquharson of Davenport was elected the first medical secretary of the State Board of Health. It was a fortunate choice because it brought to the new board the advantages of a cultural education and extensive experience in the practice of medicine.

Following the death of Dr. Farquharson, Dr. Josiah Forrest Kennedy was elected secretary of the Board on May 14, 1885. He was a graduate of the Medical Department of the University of New York in 1858, and after graduation located for practice in Tipton, Iowa. Following his military service in the Civil War he returned to practice in Tipton and a few years later moved to Des Moines. He served as Secretary of the Iowa State Medical Society from 1877 to 1883, and was an early member of the American Public Health Association.

During the first five years the activities of the State Board of Health were limited to reporting outbreaks of contagious diseases throughout the state and the recording of births and deaths as they were reported by practicing physicians. The Secretary of the Board acted as registrar.

An additional function was added in 1886 by the creation of the first Medical Practice Act, as enacted by the Twenty-first General Assembly. It became effective July 1, 1886. Prior to 1886 there was no law regulating the practice of medicine. However, an Act to regulate the practice of pharmacy and the sale of medicine and poisons was passed in 1880, and an Act to regulate the practice of dentistry was enacted in 1882, effective July 1, 1882. At this time a State Board of Dental Examiners was appointed by the Governor.

The new law authorizing the formation of the State Board of Medical Examiners comprised five physicians and the Secretary of the State Board of Health. This Act authorized the Board to grant three forms of certificates: 1) To those who were graduates of medical colleges recognized by the Board as of good standing; 2) To those who had been, at the time of passing of the Act, not less than five years in continuous practice in one locality; and 3) To those who, not having these qualifications, passed a satisfactory examination before the Board.

At the first session of the Board held after the new law of July 1, 1886, it was reported that 3,200 applications had been received. Certificates based on a diploma were issued to 2,568 physicians; for terms of practice to 490; and for successful examinations to 16. Licenses also were issued to 16 midwives.

This Act was amended in 1897, requiring that after January 1, 1899, all persons beginning the practice of medicine in Iowa must submit to an examination by the Board. This Act also required that all persons receiving their diplomas subsequent to January 1, 1899, must present evidence of having attended four full courses of study of not less than twenty-six weeks each, no two courses given in one year.
The last two decades of the previous century ushered in the "era of bacteriology" with the demonstration of specific bacteria and other micro-organisms as the causative agents of the various infectious diseases. This led to a new concept of preventive medicine which profoundly influenced public health methods during the following decades and to the present day.

As these facts regarding the bacterial origin of infectious diseases became established, they were gradually incorporated in the laws and regulations for the control and quarantine of infectious diseases as these occurred throughout the state.

Establishing of the Bacteriological Laboratory in 1903 was of epochal importance in advancing public health service in Iowa. It was connected with the department of pathology and bacteriology at the College of Medicine of the State University of Iowa at Iowa City.

The laboratory was established for the use of physicians in the state and for any special investigations requested by the State Board of Health. The first director was Dr. Henry Albert, professor of pathology and bacteriology. He promptly devised a series of diagnostic tests, as the culture test in diphtheria, the blood agglutination test in typhoid fever, and special containers for collecting sputum for the examination of the tubercle bacillus, the causative micro-organism of tuberculosis.

In 1906 the State Board of Health published its first Rules and Regulations, including quarantine, and methods of disinfection; the control of infectious diseases, as well as the proper use of disinfectants, and the rules for the transportation of the dead. Similar rules had been previously adopted by the American Public Health Association and the State and Provincial Health Authorities of North America.

Dr. Josiah F. Kennedy resigned as Secretary January 31, 1907, because of poor health, completing a service of twenty-two years as Secretary of the State Board of Health. Dr. Lewis A. Thomas of Red Oak was elected as his successor.

During the biennium 1907-1908 there were 10,547 deaths reported from infectious diseases in which pneumonia led with 6,222 deaths, followed by tuberculosis with 3,150; typhoid fever was the cause of 538 deaths, and diphtheria 423. This alarming report prompted an intensive public educational campaign for the wider use of protective vaccination in smallpox, diphtheria and typhoid fever.

The extension of laboratory service is indicated by the report that during the biennium 1907-08 the Bacteriological Laboratory made 17,409 examinations as follows: 8,794 in diphtheria; 1,537 in typhoid; 5,709 in tuberculosis and 1,369 miscellaneous.

Six auxiliary laboratories had been established in Des Moines, Mason City, Davenport, Sioux City, Burlington and Dubuque, and had made 3,719 examinations.
The laboratory examinations were effective in the better diagnosis, a lowered mortality and saving of many lives. At this time a new laboratory test for rabies was added, in the demonstration of the specific Negri bodies in the brains of dogs dying of rabies or hydrophobia.

On July 1, 1909, Dr. Guilford H. Sumner of Waterloo became Secretary of the State Board of Health.

Infantile paralysis (poliomyelitis) occurred for the first time in epidemic form in 1910, with 186 cases and 29 deaths. Serious outbreaks of typhoid fever occurred in Des Moines in November and December 1910; in Cedar Falls in October, November and December 1911; in Oskaloosa in March and April 1912, all due to contamination of the public water supply.

The General Assembly in 1913 provided many changes in the membership and organization of the State Board of Health, effective July 1, 1913. The name was changed to State Board of Health and Medical Examiners. It was enacted that the Board consist of the Governor, Treasurer of State, Secretary of State, Auditor of State, and the Secretary - executive officer of the Board as ex-officio members. The active members to consist of four physicians and one sanitary engineer, the term of office to be five years, one member appointed each year. The secretary of the Board was given the title of Commissioner during the interim of the Board meetings. The physician membership comprised two doctors of medicine, one doctor of homeopathic medicine and one doctor of eclectic medicine. Dr. Walter L. Bierring of Des Moines was elected president of the Board, serving until 1921, and Dr. Guilford H. Sumner, the former secretary, was elected Secretary of the new Board.

During the five year period 1911-1916, the State Board of Health distributed large quantities of diphtheria anti-toxin for preventive and treatment purposes to under-privileged persons, and to others at low cost rates. Anti-typhoid vaccine was likewise distributed for preventive and immunizing purpose. To render a person immune to typhoid fever, cost 28 cents. Smaller quantities of rabies vaccine were also distributed for the Pasteur preventive treatment at low-cost rates.

The distribution was facilitated by establishing 300 stations for the above purposes throughout the state.

During the years 1914-15, the bacteriological laboratory examined 6,061 specimens of sputum, of which 1,064 specimens were positive for bacillus tuberculosis.

In April 1917, the State Board of Health through the Bacteriological Laboratory arranged with the United States Public Health Service to carry out the Wasserman blood test for syphilis on all persons entering military service in Iowa for World War I. For this purpose nine branch laboratories were established throughout the state.
At the close of World War I, beginning July 1, 1919, a special campaign against venereal disease was instituted. This was aided by a special state appropriation of $15,000 with an additional Federal Grant of $10,000. The Director was Dr. W. S. Conkling of Des Moines, who had an extensive experience in the control of infectious diseases in the European theatre. Special clinics for diagnosis and treatment were established in 12 cities, and a statewide lecture program was carried out by the State Lecturer, Dr. Jeanette D. Throckmorton, who delivered 1,083 lectures to an estimated 185,200 women and girls. This program continued for three years with very effective results in venereal disease control.

During the period of World War I the Board of Health distributed over 6,000 packages of tetanus anti-toxin.

An event of significance to the Bureau of Vital Statistics was the passage of the Model Registration Law by the 39th General Assembly effective July 1, 1921. As a result, the State of Iowa was admitted into the Registration Area of the United States of Births and Deaths January 1, 1923. This allowed free franking privileges by the United States Government, and permitted furnishing each parent a certificate of notification of births without cost to the state.

By 1924 special boards of examiners had been established by legislative enactment in Embalming, Nursing, Osteopathy, Optometry, Podiatry and Chiropractic.

The 40th General Assembly appointed a committee known as the Code Commission to revise the Code of Iowa. This Commission prepared bills No. 260 and 262 to re-write, re-sectionize and re-chapterize all the laws relating to public health.

Bill 260, now known as Title VII, Code of 1924, Chapter 105, provided for the consolidation of the offices of the State Board of Health, the State Hotel Inspector, and boards of Medical Examiners, Dental Examiners, Embalming, Nursing, Osteopathy, Optometry, Chiropractic and Podiatry, into one department to be known as the State Department of Health. Under the reorganization plan, the position of Secretary of the State Board of Health was changed to Commissioner of the State Department of Health.

As further required by Title VII, "The Governor shall, within sixty days after the convening of the General Assembly in 1925, and every four years thereafter, appoint, with the approval of two-thirds of the members of the Senate in executive session, a Commissioner of Public Health, who shall be a physician specially trained in public hygiene and sanitation." Also provided in the Code of 1924; "The Governor shall appoint, prior to the second Tuesday in January 1925, and every two years thereafter, the five health officers who shall serve as an Advisory Board of Health for a period of two years or until their successors are appointed and qualified. Not more than one of the members shall be appointed from any one Congressional district."
The Code of 1924, Title VII, Public Health, indicated the Powers and Duties. "The Commissioner was authorized to establish and maintain such divisions in the department as are necessary for the proper enforcement of the laws administered by it, including a division of contagious and infectious diseases, a division of venereal diseases, a division of housing, a division of sanitary engineering, a division of vital statistics, and a division of examinations and licensees; but the various services of the department shall be so consolidated as to eliminate unnecessary personnel and make possible the carrying on of the functions of the department under the most economical methods." In this same Section the department was granted the privilege to "establish, publish and enforce rules not inconsistent with the law for the enforcement of the provisions of this Title, and for the enforcement of the various laws, the administration and supervision of which are imposed upon the department."

Section 2438, Code of 1924 (40th extra General Assembly) also stated "there was created a Division of Examinations and Licensure for the practice of medicine and surgery, dentistry, dental hygiene, osteopathy, surgery, chiropractic, nursing, embalming, optometry and podiatry."

The State Board of Medical Examiners and all other examining boards were composed of three members each, appointed for a three-year period by the Governor, one new appointment each year. The exception to this being the Board of Dental Examiners, which comprised five members, each being appointed for a term of five years.

In 1935, the 46th General Assembly re-codified the laws relating to the practice of nursing, placing it under a separate title and department, effective April 25, 1935. The Act provided for a board of five nurse examiners appointed by the Governor, establishing a separate office with an Executive Secretary.

During the 55th General Assembly (1953) the membership of the Board of Medical Examiners was changed to five members, each serving for a period of five years, and establishing a separate office with an Executive Secretary.

In 1927 the General Assembly established separate boards of examiners of three members each, in barbering and cosmetology, under the State Department of Health, but each with a separate executive secretary.

Under Title VI, Code of 1924, Dr. Rodney P. Fagen, Secretary, became the first Commissioner of Health on October 28, 1924, serving until July 1, 1925, when he was succeeded by Dr. Don M. Griswold, professor of preventive medicine and hygiene, College of Medicine, State University of Iowa, who served one year (until July 1, 1926) when Dr. Henry Albert became State Commissioner of Health.

Dr. Albert had served as the first Director of the State Bacteriological Laboratory and Professor of Pathology and Bacteriology, College of Medicine, State University of Iowa, and more recently as Director of Laboratories, Nevada State Board of Health. Dr. Albert brought to the Department an unusual experience in
preventive medicine, and stimulated many forward movements in public health, and particularly he greatly stimulated the organization of county and district health services. He established a separate division of preventable diseases including tuberculosis and venereal disease. A new infectious disease transmitted from animals - undulant fever - Malta fever, or brucellosis, was first discovered in a packing-house worker in Mason City, in 1926 and in 1928 and 1929, 193 cases were reported throughout the state.

The Commissioner merged housing with sanitary engineering, and with his new Director of public health engineering, Mr. A. H. Wieters, he greatly extended the investigation of public water supplies, stream pollution and sewage disposal systems.

New divisions were established in Public Health Nursing, Public Health Education and Maternal and Child Health, the latter being one of the six such divisions in the United States.

It was a tragic loss to public health interests in Iowa when Dr. Henry Albert died April 6, 1930, as a result of acute appendicitis at the age of 52 years. He had already gained national recognition and had made distinct contributions in the diseases of diphtheria, typhoid fever, and rabies.

On July 1, 1933, Dr. Walter L. Beering became State Commissioner of Health, having been appointed by Governor Clyde L. Herring during the preceding legislative session.

A number of new problems in public health developed early in this period of service.

During the session of Congress of 1933-34, the Social Security Act was considered and became a law in August 1935. This Act provided grants to the individual states for the training of public health personnel, and the extension of various public health services.

The training of personnel was of great importance to Iowa, as during the next five years 12 physicians, 7 sanitary engineers and 66 nurses completed one year of special public health training in approved schools of public health leading to the degree M.P.H. This distinctly influenced the standards of public health service in Iowa.

In 1937 a Convalescent Serum Depot was established by equipping a special laboratory, licensed by the U.S. Public Health Service, to process and prepare blood serum from donors, who had recovered from scarlet fever, measles and poliomyelitis. This serum was distributed through stations in drug stores throughout the state. This serum when used in the early stage of one of these diseases, distinctly modified the intensity and course of the infection.
At this time an accurate laboratory diagnosis of acute pneumonia was dependent on the demonstration of the 32 different types of the causative pneumococcus by examining specimens of sputum by the use of the Neufeld method. To facilitate the early diagnosis, 120 typing stations were established in hospitals and clinical laboratories throughout the state. Several courses of instruction for laboratory technicians were conducted at the Bacteriological Laboratory at Iowa City.

Curative anti-pneumococci serum soon became available for each of the types, and its use resulted in a shortening of the course of illness, and a 50 per cent reduction in the mortality rate. The anti-pneumococccic serum was furnished without cost to under-privileged persons, and upon the recommendation of the attending physician. This was facilitated by storing a supply of the principal types with druggists in the state. With the introduction of penicillin in 1944, the type differentiation test of the pneumococcus became unnecessary, and the diagnosis and treatment of acute pneumonia was greatly simplified.

A tuberculosis chest x-ray case-finding program was established in 1939 in cooperation with the Iowa Tuberculosis Association. The following year a full-time nutritionist was added to the staff of the department.

Under a special appropriation a statewide free laboratory service was provided for the examination of public water and milk supplies.

After enactment of the Federal Venereal Disease Act in May 1938, funds became available for establishing diagnostic and treatment centers in Des Moines, Iowa City and Sioux City. The onset of World War II distinctly affected the venereal disease program. The General Assembly in 1941 enacted a law requiring premarital tests for syphilis, and in 1943 a prenatal law requiring a Wassermann test during the period of pregnancy. As the result of these laws, congenital syphilis was reduced to a minimum.

At the treatment centers, intensive treatment with Salvarsan was instituted, and in 1944-45 when penicillin became available, remarkable results were obtained which often resulted in complete recovery in the early stage of the disease. As physicians became familiar with the newer methods of treatment, the clinics established by the Health Department were gradually discontinued.

In 1940 the Iowa Merit System of Personnel Administration was established as the result of Federal legislation, that certain agencies in order to continue their eligibility for Federal funds, must obtain and retain employees on the basis of merit. These agencies in Iowa were the State Board of Social Welfare, State Department of Health, Employment Security Commission, and the State Services for Crippled Children.

A Merit System Council was appointed by Governor Blue to supervise the Merit System as it developed in the several state agencies, and it was fully inaugurated in the Department of Health by 1943.
The new section of industrial hygiene in the Division of Sanitary Engineering, instituted an active educational program toward protecting the health of the industrial worker, particularly in industries concerned with the production of munitions of war. During 1941, an Industrial Hygiene Institute was held in ten of the larger cities of the state which were attended by more than 1,600 physicians and nurses. The last Institute was held in Davenport December 4, 1941, three days before the Pearl Harbor attack.

During the war period the Civil Defense Office received the fullest cooperation of the Department of Health. The Commissioner and two Directors served on the State Advisory Council for Civil Defense. One Director later became Associate Chief, and Chief of the State Medical Emergency Service.

On July 1, 1941, the Division of Cancer Control was added, funds being provided for establishing Tumor Clinics in connection with hospitals in the larger cities of the State for diagnosis and consultation as to the proper treatment of cancer and other malignant tumors. Dr. Edmund G. Zimmerer was named the first director, having just returned from a year's graduate study at the Harvard School of Public Health, Boston, receiving the degree of M.P.H. The objectives of this division, as announced at its inception, were; first, the conservation of life and the protection of the health of the people of Iowa by the prevention, so far as possible, of cancer; and secondly, the more feasible (in the light of present knowledge) plan of reducing mortality, illness and disability due to malignancy. Achievements of these ends has been sought along three lines of attack, namely: research, the provision of facilities for early diagnosis and adequate treatment of all, and education.

Through the Division of Maternal and Child Health, the Emergency Maternal with Infant Care Act, enacted by Congress in 1943 was carried out in Iowa. It represented a case load of 3,200 cases of maternity and infant care (wives of enlisted men) with an expenditure of $266,930.

In 1944 and 1945, Iowa experienced an unusual outbreak of malaria principally along the Mississippi River and the Eastern part of the state, although a few cases were listed as far West as Des Moines. In 1944, 241 cases were reported, and 465 cases in 1945; of these 93 cases occurred in the Armed Forces at Schick Hospital, Clinton. There were three deaths. The laboratory investigations indicated that the anopheles mosquito, which is the purveyor of malaria, had been brought as far north as Minneapolis. Effective measures for the elimination of the mosquitoes brought the disease under control. The investigation was aided by the assignment of Mr. John LePrince, Sanitary Engineer, by the U.S. Public Health Service.

In 1947 a new Division of Finance and Personnel was recommended by the Commissioner, and approved by the State Executive Council. For several years the department had been an organization with a payroll in excess of 200 employees, and disbursing through its fiscal procedures nearly a million dollars annually.
A new position under the title of Director of Finance and Personnel was authorized, and the employment of two additional persons with accounting and personnel background. At the same time all duties relating to personnel and Merit System matters were transferred, creating a Finance and Personnel Unit.

The Executive Council, in January 1948, approved an official compensation plan and specific classification titles for all employees of the Department. The job specifications contained a series for medical personnel, public health engineering, and public health nursing personnel, laboratory technicians, x-ray technicians, sanitary officers and other professional and technical positions. Stenographic and clerical personnel qualified under specifications jointly used by all Merit System agencies.

Early in 1948 considerable progress was made in adjusting the incumbent employees to comparable steps in the new salary ranges, including an additional upward revision for professional classifications approved by the Executive Council effective April 16, 1948.

An amendment to Merit System Regulations was adopted, specifically exempting from the regulations all employees of the examining and licensing boards.

In 1948 a new service was added to the Department as the result of the Federal Act Public Law 725 (Hill-Burton) which provided Federal assistance in the form of Grants-in-aid, to eligible hospital projects to the extent of one-third of total case of project since its inception, selected in accord with the Iowa plan and particularly in the order of priority established, projects requiring two to four years for completion.

To comply with the Federal Act, the 52nd General Assembly, enacted the Iowa Hospital Survey and Construction Act, to provide for an inventory of existing hospitals and survey of needs for additional hospital facilities. To authorize the Governor to appoint a Hospital Advisory Council of twelve members to consult and advise with the State Department of Health in carrying out the administration of the Act. To authorize the acceptance and expenditures of Federal funds. To establish in the State Department of Health, a Division of Hospital Survey and Construction, with a fulltime salaried Director under the direction and supervision of the Commissioner.

The 52nd General Assembly further enacted a Hospital Licensing Act, to require the licensing, inspection and regulation of hospitals, including nursing homes. The Act further provided that five hospital administrators on the Hospital Advisory Council shall constitute the State Hospital Licensing Board.

With the expansion of activities in preventive medicine, Stanley L. Hendricks, D.V.M., joined the Department July 1, 1949, as assistant to the Director, Dr. Ralph H. Heeren. His duties were to be in the field of diseases of animals transmissible to man. He was granted a leave of absence to acquire his M.P.H. at the University of Minnesota, and then began his work on Iowa's rabies and brucellosis problems.
A significant and historic event occurred in March 1952, when the State Department of Health moved into its new home in the State Office Building, being assigned the entire third floor, comprising an area of 22,000 square feet. Aside from the modern facilities of excellent lighting, ventilation, air conditioning, elevators and cafeteria service, there was provided ample operating space in all divisions, as well as a reference library, two conference rooms, and convenient rest rooms. The new environment promoted a higher efficiency of service, as well as distinctly influencing the health and morale of all personnel.

During the past two decades the Department had sustained the loss of three directors by death. Dr. Marvin F. Haygood, M.D., M.P.H., served as Director of Local Health Services from July 1, 1936, to his death on June 28, 1942, from coronary occlusion. Dr. C. L. Putnam, M.D., M.P.H., was appointed Director of Local Health Services and Deputy Commissioner on July 1, 1942, serving until his death December 2, 1952, from hypertension and myocardial insufficiency. Dr. John M. Hayek, M.D., M.P.H., was appointed Director of Maternal and Child Health on September 1, 1937, serving until his death on May 24, 1949 from cerebral tumor. All three directors were specially trained in public health and each made distinct contributions to the advancement of public health in Iowa in their special fields.

July 1, 1953, Dr. Walter L. Bierring retired as Commissioner, after twenty years of service, and Dr. Edmund G. Zimmerer was appointed his successor for a term of four years, and was reappointed for a second term in 1957. He came into his new post after nearly fifteen years of service with the department as Director of a District Health Service, and in the last eleven years as Director of the Division of Cancer Control. After the death of Dr. C. L. Putnam on December 2, 1952, Dr. Zimmerer served as Deputy Commissioner.

The Commissioner named Ralph H. Heeren, Ph.D., M.D., M.P.H., as Deputy Commissioner, and established a new division of Gerontology, Heart and Chronic Diseases, appointing Dr. Walter L. Bierring as Director of the same.

During the last eight years the services of the State Department of Health have been greatly extended in each of its fifteen divisions.

In the field of preventive diseases, new diseases have continued to appear. To indicate the facilities now available for early detection and control, the following brief references are submitted.

In 1953 a new epidemic disease, infectious hepatitis blossomed with a record of 1811 cases; in 1954, 3619 cases were reported; 967 cases in 1955; 372 cases in 1956; and 177 cases in 1957. Since April 1955, immune serum globulin, prepared by the American Red Cross, has been available for the treatment of infectious hepatitis with good results.
Psittacosis is a virus disease occurring in birds and transmitted to man by contact. In 1953-54, 22 human cases were reported in Iowa, due to contact with newly purchased parakeets. Two cases were reported in 1955, with the probable source being infected turkeys.

In poliomyelitis, since the peak year of 1952, when 3,564 cases were reported, paralytic poliomyelitis is decreasing and the other enteroviruses appear to be increasing, and the diagnosis of non-paralytic poliomyelitis is becoming more and more difficult. There is great need in Iowa for a virus laboratory, because at present all such laboratory specimens are sent out of the state.

In September 1955, the first of the Salk protective vaccine for poliomyelitis was administered to 117,000 school children in the first and second grades. Its subsequent extensive use has very definitely reduced the number of cases of poliomyelitis in this state.

During the winter 1955-56, fifteen human cases of ringworm of the scalp were reported in Muscatine County, having been acquired through contact with young monkeys recently imported into the United States. Upon bacteriological examination the causative micro-organism was a new Trichophoton fungus, microsporum distolorum, not previously described.

In August 1956, a disease of virus origin, Coxsackie B5, a polio-like infection, mostly non-paralytic, occurred in epidemic form in central, north central and northeastern part of the state. One of the most intensive studies yet reported in the literature was carried out on this problem. The center of the study was Mason City and Cerro Gordo County. During this study the virus of Coxsackie B5 was found for the first time in spinal fluid, reported in New England Journal of Medicine February 6, 1958.

In 1957 another virus infection called ECHO-4 occurred in epidemic form in Marshalltown and Marshall County. The physicians reported more than 200 cases; but on the basis of a house to house survey, sixteen per cent of the population of the county was involved, or over 3,000 cases.

In June 1957, the Asian strain of the influenza virus struck Iowa at Grinnell College, during a student conference, including delegates from 43 states, as well as Alaska, Puerto Rico, Cuba, Germany, Austria and India. Of the first 12 sick persons admitted to the college infirmary, 11 were delegates from California, and the twelfth case was an Oregon delegate who had travelled with the California group. In 114 admissions, no complications appeared and recovery was prompt and uneventful. The study of this outbreak served to establish links in the transmission of the Asiatic type of influenza in its first path through the United States.

A protective vaccine for influenza, including the Asiatic strain, has been developed and is now generally available.
In 1957, staphylococcus infection in hospitals was recognized as a problem demanding interest and attention. Strains of staphylococci introduced into hospital personnel have in some instances become resistant to many of the antibiotics. These microorganisms when passed through various channels to patients or other hospital staff members, created a new problem in hospital management of infections.

Histoplasmosis, a fungus disease, continues to be reported in small numbers, but with a slight increase each year. In its severe form it is usually fatal. There is increasing evidence that a milder form of the infection occurs in large numbers in certain parts of the United States, particularly in the Ohio River Valley and Upper Mississippi Basin. In Iowa it is largely a diagnostic problem, using the Histomin skin test. In a survey made in 1958, large numbers of positive reactors (indicating recovery from histoplasmosis) were found in many young adults in Jackson County and several southern counties in Iowa. The infection has some resemblance to brucellosis and tuberculosis; in the latter the terminal calcification of healed tuberculosis of the lungs is similar to that of histoplasmosis.

Leptospirosis, a fungus infection, is increasing in man because of the high incidence of the infection in dogs and cattle. It has been found in cattle in every county in Iowa. The largest outbreak in man thus far reported in the United States was in 1959, when 42 cases occurred in Linn County and Cedar Rapids.

Tularemia resulting from contact with diseased rabbits continues to occur to a limited extent each year.

Brucellosis, formerly called undulant fever, while less frequent than ten years ago, continues to occur in Iowa in larger numbers than in any other state in the Union. Its annual average is between 200 and 300 cases. Because of its greater frequency in hogs, human cases are contracted more frequently from hogs than cattle. Contaminated milk is less frequent source of infection because of better sanitary control of dairies and milk distribution. Human cases result more frequently from contact with diseased animals on the farm and in packing houses.

The present problem in tuberculosis is concerned with the detection of latent tuberculosis, usually occurring in older persons, that has been previously unrecognized. In this country today, tuberculosis infection among younger children is becoming rare. Where reactions are found after intradermal tuberculin tests, and particularly where young children have been exposed to an older person with tuberculosis, the following prophylaxis program is instituted. All children up to ten years of age, who react to the tuberculin test, and with x-ray evidence of tuberculosis, are placed on the following: 5 m.g. of isoniazid, per kilogram of body weight, every day (by mouth) for one year.

In recent years, the x-ray examinations of the chest, in persons under 18 years, have been discontinued throughout the state. Increased efforts are now centered on the finding of tuberculosis in persons over 18 years of age, and particularly unrecognized cases in older persons. It is hoped by this method to bring tuberculosis gradually under control.
In venereal disease, an alarming increase in the incidence of gonorrhea continues in the teen-age groups from 14 to 25 years. A lesser increase is noted in the number of acute syphilis infections that are not properly diagnosed and placed on prompt treatment. It requires constant vigilance, and intensive effort of the Department in cooperation with practicing physicians, public health nurses, social workers and special inspectors to bring these disabling infections under control.

The diagnostic services of the State Hygienic Laboratory, as well as penicillin or other antibiotics for treatment, are made available by the Department to practicing physicians, hospitals and clinics, as necessary for the control of these venereal diseases.

Limited outbreaks of diphtheria are reported each year, usually occurring in persons who have not been immunized with diphtheria antitoxin.

In typhoid fever, small epidemics are usually traceable to a typhoid carrier in the person who has recovered from the disease. At present there are 65 typhoid carriers registered with the department.

A significant new departure in laboratory diagnosis is the installation at the State Hygienic Laboratory of a fluorescent microscope and facilities for the fluorescent antibody technique for the early culture diagnosis of the Beta streptococcus hemolyticus, the causative agent in the throat infections, usually followed by acute rheumatic fever. By intensive antibiotic treatment of the streptococccic sore throat, the resulting acute rheumatic fever will be averted, as well as the frequent consequence of rheumatic heart disease.

One course of instruction of this new laboratory technique has been conducted by the Director, Dr. Borts, for a group of laboratory technicians from the larger hospitals in Iowa.

By this new technique, an early diagnosis can be made of rabies and some other viral infections.

The Division of Public Health Engineering and Industrial Hygiene continues to be most active in the control of the environmental causes of disease; first, by the control of lake and stream pollution through extended construction of sewage disposal plants; and second, in the effective control of the hazards of the industrial worker.

Occupational diseases, their prevention and control, are of increasing importance to the public health worker and the practicing physician.

Air pollution in Iowa is being carefully studied.

Through the efforts of the Division of Dental Hygiene, distinct progress is being made in the fluoridation of public water supplies for the prevention of dental caries. At present there are 34 installations for the fluoridation of public water
supplies operating in 42 communities, and serving a population of 739,855. These installations are under the supervision of the State Department of Health by periodic inspections by the Division of Public Health Engineering.

In 1959, the Department through its Division of Maternal and Child Health, established a poison center at the Blank Memorial Hospital for Children, Iowa Methodist Hospital. This center is prepared to furnish to doctors information regarding poisons and their effects, with prompt consultative advice as to emergency relief of symptoms. This Center, augmented by three sub-centers, is able to serve all parts of the state.

When the Department, through its Commissioner, established the Division of Gerontology, Heart and Chronic Disease, it was the first State Health Agency to establish a separate division for the study of the aging. It was specially applicable to Iowa because eleven per cent of Iowa’s population is 65 years of age or older, making about 300,000 persons in that age group.

It has been necessary to collect and distribute all available information on the biology of aging common to all living organisms, and the changes occurring in cells, tissues and organs of the human body during the aging period. Likewise, to further arouse community responsibility to meet the challenge of social-economic problems concerned with an aging population.

By the continued extension of life’s expectancy, the incidence of heart and chronic, or long-term diseases, has greatly increased. The efforts of control have been directed more toward the recognition of early signs, the prevention of complications, instituting rehabilitative measures, medical supervision and endeavor to maintain productive and a comfortable form of living as far as possible.

By assisting the establishment of cardio-vascular laboratories at the University Hospital, Iowa City in 1952, and Iowa Methodist Hospital, Des Moines, in 1956, new methods of diagnosis have been developed, especially in congenital heart diseases with effective measures of relief. All of this has been of great benefit to the physicians, nurses, and people of the state.

Special screening studies of five years duration have been developed for the detection of early signs of diabetes at the Broadlawns Polk County Hospital, Des Moines, and a population screening study in Des Moines of glaucoma, in cooperation with the Department of Ophthalmology, University Hospital, Iowa City.

Special studies and surveys are being conducted in chronic nervous system diseases as multiple sclerosis, progressive muscular dystrophy, and spastic palsy, as well as in the different forms of arthritis.
The Division of Hospitals, since its establishment in 1948, has become a monumental service to Iowa in providing modern hospital facilities to practically every community in the state. More recently there has been added the building of nursing homes, usually in connection with established modern hospitals. The building of Public Health Centers is now being considered.

The extension of modern hospital services, has distinctly advanced preventive medicine in Iowa, as well as providing modern hospital care for those in need of same.

The Division of Nutrition has been most helpful in outlining appropriate diet lists for hospitals, as well as preparing and distributing suggested diets in heart and chronic diseases.

The study of the control of cancer has been one of the important functions of the department for the past twenty years, providing for the organization of tumor clinics in the larger hospitals of the state, with facilities for early laboratory and clinical diagnosis and consultative advice as to prompt treatment.

During the past year a new study was instituted in cooperation with the Iowa State Medical Society, the Iowa Society of Clinical Pathologists and Iowa Chapter of the American Cancer Society for the following purpose: To determine, by means of a personal interview with practicing physicians, and osteopathic physicians, and questionnaire, the extent of the effectiveness and use of the Papanicolaou technique in the early diagnosis of cervical cancer. This to apply in the beginning to the 53 counties in which the largest city has a population not to exceed 5,000.

The Division of Public Health Nursing has distinctly advanced the service and benefits of public health nursing in this state. It has been meeting the changing problems in all fields of preventive medicine.

The Division of Public Health Education has kept pace with the progress of knowledge in the prevention and control of infectious diseases, as well as the challenge of an aging population and the problems of chronic, or long-term diseases. All publications and press releases are reviewed by the director of the division concerned.

The Vital Statistics Division is the basic and oldest bureau or division in the Department. As it is concerned with all of human relations, the accurate recording of bio-statistics is of highest importance to every phase of human welfare. It is the largest division in the department, comprising a trained personnel of 33 persons.