

SEVENTIETH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1947



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DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY

FREDERICK P. LEE, M. D., *President*..... Paterson
WALTER G. ALEXANDER, M. D., *Vice-President*..... Orange
L. VAN D. CHANDLER..... Hackensack
ROBERT P. FISCHER, D. I..... Red Bank
THOMAS L. LAWRENCE..... Hamburg
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MRS. GLOANNA W. MACCARTHY..... Maplewood
FRANK J. OSBORNE..... East Orange
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MARTHA W. TYNDALL, M. D..... Westfield
E. R. WESTCOTT, D. D. S..... Atlantic City

J. LYNN MAHAFFEY, M. D., *Director and Secretary*

CHARLES M. CALLAHAN, *Deputy Secretary*

The offices of the Department are in the State House, Trenton

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1947.

To the Senate and General Assembly of the State of New Jersey:

As required by law, I have the honor of submitting herewith the Annual Report of the Department of Health, together with accompanying important documents, for the fiscal year ending June 30, 1947.

FREDERICK P. LEE, M. D.,
President,
State Department of Health.

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1947.

To the Department of Health of the State of New Jersey:

GENTLEMEN—I have the honor to submit herewith the Annual Report of the Department for the year ending June 30, 1947. The reports of the Bureau and Division heads will give comprehensive accounts of the activities of the Department during the year.

Respectfully submitted,

J. LYNN MAHAFFEY, M. D.,
Director of Health.

Report of the Director of Health

By J. LYNN MAHAFFEY, M. D.

Outstanding in the health achievements of the fiscal year ending June 30, 1947, was the enactment by the Legislature of P. L. 1947, c. 177, reorganizing the State Department of Health and marking the third legislative reorganization of the State health structure since its creation in 1877.

The original State Board of Health created in 1877 was empowered to make investigations and studies only. In 1887 legislation was passed creating a new State Board of Health with executive and administrative powers. This Board was continued with ever increasing powers until 1915 when an act creating the State Department of Health with a State Health Director was enacted.

Year by year additional powers, funds and personnel were made available and the State Department of Health as it was organized on June 30, 1947, was developed. Its activities and public health programs played a large part in placing New Jersey among the top States of the nation in its health record.

Enactment of P. L. 1947, c. 177, which became effective July 1, 1947, marked another turning point in the organization and administration of public health on the State level in New Jersey. The law abolished the State Board of Health, replacing it with a Public Health Council, and abolished the position of Director of Health, replacing it with a Commissioner of Health.

The changes effected in State and local health administration in New Jersey by the reorganization law are extensive and fundamental. While some features of the law can be put into immediate effect, full application and administration of all the features of the act will require many months of planning, discussion and community effort. Additional personnel will be required and new appropriations of funds will be necessary to translate the legislation into the active public health program envisaged by its authors.

COMMUNICABLE DISEASE INCIDENCE

Occurrence of cases of virulent smallpox in New York City followed by the report of a death from smallpox of a visitor from Trenton in the City of Camden resulted in the vaccination of more than one million persons in New Jersey during the period from early April to the middle of May, 1947. The

unprecedented demands for smallpox vaccine made upon the Department soon exhausted not only the available supply, but also available funds for purchase of vaccine. Emergency funds were provided by action of Governor Alfred E. Driscoll and the Legislature and the needed vaccine was secured. No further cases occurred in New Jersey and the level of protection against smallpox has been raised throughout the State by the vaccination program.

Reports of cases of communicable disease doubled in 1946 over 1945 as a result of the high prevalence of measles in 1946. The diseases of childhood—chickenpox, measles, German measles, mumps and whooping cough—accounted for 87% of the reported cases. An increase of cases and doubling of deaths from diphtheria points up the need for constant effort in the immunization of infants and children. There were 27 deaths from whooping cough, 18 of which were infants under one year and four were in the one to four year age group.

BIOLOGICALS DISTRIBUTED

Free biologicals were made available to physicians and local health department clinics at 63 distributing stations throughout the State. Anti-rabies vaccine (human), influenza virus vaccine A and B and measles immune serum globulin were added to the list of available biologicals. Surplus blood plasma in excess of needs of the armed forces was released by the American Red Cross to the Department which distributed it to hospitals and a few emergency distributing stations.

TUBERCULOSIS CONTROL PROGRAM

Free chest X-rays provided by the Tuberculosis Control Division passed the quarter-million mark during the year as equipment previously ordered was delivered. The Division functions now as a service agency for local health departments, tuberculosis leagues and other groups, providing X-ray facilities for local case-finding programs. Five transportable photofluorographic units and a trailer unit were in operation.

Follow-up of persons found to show signs suggestive of tuberculosis in X-ray screening examinations was done through the Bureau of Local Health Services. In May, 1947, the Bureau brought to a close the follow-up work of over 6,000 persons reported as deferred from military service by Selective Service boards since 1941. The Bureau has initiated a similar service for reports received from the Veterans Administration of cases of tuberculosis admitted to, discharged from or leaving veterans hospitals. Similar follow-up service is provided in the Bureau of Local Health Services for the X-ray surveys conducted by the Tuberculosis Control Division.

VENEREAL DISEASE AND PENICILLIN

In the three years of its operation, since July 1, 1944, 3,539 cases of early infectious syphilis have been treated under the hospitalization and penicillin treatment plan. An additional 792 men separated from military establishments in the State were treated. Eight hundred and three cases of gonorrhea were hospitalized and given penicillin treatment during the first year and since then 8,261 cases have been treated on an out-patient basis. It is anticipated that with penicillin in oil and beeswax now available, hospitalization for syphilis has passed its peak. Similarly, with the high rate of cure of gonorrhea with a single injection of penicillin, the gonococcus culture diagnostic service loses its public health value.

Special clinics for migrant agricultural workers were again conducted and health services were extended to include examination of a proportion of migrant workers for malaria, tuberculosis, cancer and dental caries, as well as examination for venereal infections. Prenatal care was also provided.

RABIES CONTROL

Rabies remains a threat to New Jersey and although the number of reported cases has decreased, five human deaths have occurred in five years—two in 1946—and outbreaks continue to occur. Three mobile units are now on order for dog control service in local municipalities as needed. Of \$79,706.95 received by the State from dog license fees, \$35,521.65 was expended for rabies control and \$53,270.95 transferred to the general treasury.

DISTRICT HEALTH OFFICES

Eight District Health Offices were maintained through the Bureau of Local Health Services at Dover, Hackensack, Highland Park, Freehold, Mt. Holly, Collingswood, Pitman and Mays Landing. In addition to these services, the District Health Officer at the Collingswood office was assigned to give part of his time for similar duties in Mercer County.

Cecil K. Blanchard resigned as Supervisor of District Health Officers and Sanitation February 1, 1947, after 35 years of service with the Department. One of the pioneer health workers of the State, he made an enviable record of service and is well known as author of "Mark Time," which has appeared regularly in *Public Health News* since 1929. He leaves with the good wishes of his many friends for a long and profitable retirement. Dr. Roscoe P. Kandle, Chief, Bureau of Preventable Diseases, was appointed to fill his place on the Examining Board and his duties in conducting the Rutgers Public Health Courses, in arranging the Annual Conference of State and Local Health Officials, and in writing the *Public Health News* column were assigned to Ralph T. Fisher, Chief, Division of Health Education.

HEALTH EDUCATION

Community health education and organization work was carried forward by the Division of Health Education. A central health education warehouse for storage and distribution of printed materials for the Department was established, and production of health education materials was done at the health education workshop and health education printshop. The film library was enlarged and exhibits were increased.

The Basic Public Health Course which had previously been given in two 72-hour, six-week sessions held in two successive summers was given in 1946 for the first time in two six-week sessions of 72 hours each, running from July 2 to August 8, and from September 17 to October 24. The Course was completed by 38 students. Applications for training in this course have more than doubled since the end of the war.

Five short-term evening courses were given in the spring session, 1947, and 61 students completed courses.

Policies were adopted in September, 1946, to encourage and facilitate further advanced and graduate training of professional personnel employed in the Department. A number of employees are currently receiving such training to the future benefit of the Department.

A new Board of Examiners of Health Officers and Inspectors was appointed which began a detailed study of eligibility requirements and examining procedures.

PUBLIC HEALTH LABORATORY SERVICES

Nearly 400,000 specimens were examined in the laboratories of the Department, including over 2,000 Rh factor determinations for physicians, although this has not been made a routine procedure. Minimum requirements were adopted for the issuance of certificates of approval to laboratories by the Department.

The Bureau of Vital Statistics initiated a new program of providing photostatic copies of death certificates to other units of the Department. A field worker gave much needed advice and assistance to local registrars and others concerned with vital statistics registration.

SANITATION SERVICES

Rules and regulations were adopted for the administration of the flour and bread enrichment act which became effective July 1, 1946. While no funds were made available for laboratory control, enforcement by field inspections was administered by the Bureau of Food and Drugs. In was necessary during the year to deny or revoke permits of 46 out-of-State milk sup-

pliers and to take drastic action against ten companies operating plants in New Jersey. Food shortages have brought about an increase in the use of the freezing process for preservation and storage of foods. Improper methods resulted in the spoilage of quantities of foods. New rules and regulations governing the construction and operation of slaughter houses were put in effect.

Because of critical shortages, only 66% of water projects and 35% of sewerage projects approved by the Department were constructed during the year. These had a combined value of \$696,500.00. Activities of the Bureau of Engineering and Sanitation in regard to industrial wastes pollution elimination which were temporarily curtailed during the war years were intensified during the past year.

BUREAU OF PREVENTABLE DISEASES

The Bureau of Preventable Diseases was expanded during the year by addition of the Division of Cancer Control, a nutritionist, a statistical service, and a public health nurse consultant in tuberculosis. Quarters were provided for the new activities as well as for an expanded industrial health laboratory and a conference room. Regular staff meetings of division chiefs and program heads within the Bureau were held.

In-plant environmental engineering services and medical and nursing assistance and consultation were provided for New Jersey's industries during the year through the Division of Adult and Industrial Health. An industrial sight conservation program was initiated, community industrial surveys were continued, and a complete mailing survey was made of industrial nurses in New Jersey. Reference library services were provided in response to requests and a monthly technical *Industrial Health Bulletin* was issued with a large circulation.

The Division of Cancer Control was established September 10, 1946, with a program of statistical research, professional education and lay education. In a joint program with the New Jersey Society of Clinical Pathologists a tumor slide registry, a consulting board of tissue pathologists, a tumor tissue laboratory and a cancer reference library have been established. A Public Health Cancer Council with membership from 14 professional and civic agencies was established.

DENTAL HEALTH PROGRAM

The dental health program solidly established with the active support of lay and professional voluntary and official groups has progressed to a point where children from 188 school districts in 17 counties are receiving services. Mobile units are assigned to rural areas. In addition to the service program,

educational, investigatory and consultative responsibilities were further developed. Continued comparative studies were made among children in six communities having public water supplies with a natural flourine content of 1 to 2 ppm. and those with less than 1 ppm. The evidence indicates that a public water supply containing one to two parts per million of fluorine effects more than 40% reduction of the dental caries rate in children born and reared in the area.

Maternal and infant mortality rates reached new lows during 1946. A total of 29,978 maternity cases and 2,613 pediatric cases were authorized to receive care under the Emergency Maternity and Infant Care Program up to December 31, 1946. Continued emphasis was placed through lectures to nurses and meetings with pediatricians on the mental aspects of child growth and development.

Eleven counties received Certificates of Merit from the United States Public Health Service in connection with National Negro Health Week. Programs of pre-school immunization, community chest X-ray surveys and mass blood-testing were conducted by the Negro Health Program.

SHORTAGES HANDICAP DEPARTMENT

The Department of Health has shared with other State departments the handicap of low salary schedules which has resulted in an unusually large turnover of trained personnel and in a number of cases it has been impossible to fill positions at existing salaries. This has been particularly true of the staff of the Bureau of Engineering and Sanitation and vital control programs have been severely hampered—for example, one-third of the public potable water supplies of New Jersey were not inspected during the fiscal year. Other programs have been handicapped for the same cause.

While no immediate relief appears possible, the need of the Department for adequate quarters increases with each year. The Department now occupies space on three floors and the basement of the State House and rents space in seven separate buildings scattered throughout the business section of Trenton. Repeated studies have indicated a grave need for more space in a single building for the efficient and proper conduct of the works of the Department.

Report of the Division of Personnel, Administration, Records and Accounts

For the Year Ending June 30, 1947

By CHARLES M. CALLAHAN, *Chief*

At the meeting of the State Department of Health held on July 9, 1946, Frederick P. Lee, M. D., was elected President and Walter G. Alexander, M. D., was elected Vice-President for the fiscal year ending June 30, 1947.

Mrs. Gloanna W. MacCarthy, of Maplewood, and Eugene R. Westcott, D. D. S., of Atlantic City, were appointed to membership and confirmed by the Senate on June 12, 1946, for the four-year term expiring July 1, 1950. Martha W. Tyndall, M. D., of Westfield, and E. W. Smillie, D. V. M., of Princeton, were reappointed to membership and confirmed by the Senate on June 12, 1946. Harry N. Lendall, C. E., of New Brunswick, was also appointed to membership and confirmed by the Senate on September 30, 1946.

At the Department's meeting of September 10, 1946, the following permanent committees were appointed by the President to serve during the year:

Organization Committee: Mrs. MacCarthy, Chairman; Dr. Smillie, Mr. Osborne, Dr. Westcott, Dr. Fischelis.

Committee on Budgets and Salaries of Personnel: Mr. Lawrence, Chairman; Dr. Alexander, Dr. Westcott.

Legislative Committee: Mrs. MacCarthy, Chairman; Dr. Alexander, Mr. Chandler, Dr. Westcott.

Building Committee: Dr. Westcott, Chairman; Mr. Osborne, Dr. Peacock, Mr. Chandler.

Committee on Medical Care: Dr. Peacock, Chairman; Dr. Tyndall, Dr. Alexander, Dr. Fischelis.

Joint Rabies Committee: Dr. Smillie, Chairman; Mr. Chandler, Mr. Lawrence.

Mental Health Committee: Dr. Tyndall, Chairman; Mr. Osborne, Dr. Peacock.

Food and Drug Committee: Mr. Lawrence, Chairman; Dr. Fischelis, Dr. Smillie.

Committee to Serve as Liaison Group Between State Board of Health and N. J. Health Officers' Association: Mr. Osborne, Chairman; Dr. Alexander, Dr. Peacock, Dr. Tyndall, Dr. Smillie, Mr. Chandler.

Health District Committee: Mr. Chandler, Chairman; Mr. Lawrence, Dr. Alexander, Dr. Fischelis, Dr. Westcott, Mr. Osborne.

Daniel Bergsma, M. D., entered upon his duties as Deputy Director on July 1, 1946, in accordance with Board action of May 14, 1946, appointing him to the aforesaid position.

BOARD OF EXAMINERS AND EXAMINATIONS

At the Department's meeting of January 14, 1947, report was made that C. K. Blanchard, of this Department, was retiring from active service on February 1, 1947; it was on motion voted at the aforesaid meeting that Roscoe P. Kandle, M. D., be appointed to membership on the Board of Examiners of Health Officers and Inspectors to replace Mr. Blanchard.

At the meeting of February 11, 1947, the following were appointed as members of the Board of Examiners of Health Officers and Inspectors for the year beginning March 1, 1947: Roscoe P. Kandle, M. D., State Department of Health, Chairman; John E. Bacon, State Department of Health, Secretary; Harrold A. Murray, M. D., Chairman for New Jersey, American Academy of Pediatrics, Newark; Patrick J. Monaghan, Department of Health, Newark; E. W. Smillie, D. V. M., member, State Board of Health; Dennis J. Sullivan, Department of Health, Jersey City; Ralph P. Shaw, Jr., N. J. Civil Service Commission.

At the meeting of April 8, 1947, it was on motion voted, upon recommendation of the Board of Examiners, to discontinue, effective May 1, 1947, examinations for Lay Meat Inspector. It was also on motion voted at the meeting of April 8, 1947, to delete Qualification No. 4 under the heading "Health Officer," from the qualifications adopted on September 10, 1940.

Four examinations on the last Friday of July, October, January and April were held as usual.

During the year there were filed with the Department 139 applications for examination as Health Officer or as Inspector of the various classes.

Licenses were issued to those receiving a general average of 70% or more, as follows: Health Officer, 12; Sanitary Inspector, First Class, 34; Sanitary Inspector, Second Class, 10; Plumbing Inspector, 24; Veterinary Meat Inspector, 6; Milk Inspector, 8; Sanitary Inspector, Third Class, none; Food and Drug Inspector, 4; Lay Meat Inspector, 1.

ANIMAL EXPERIMENTATION

On March 11, 1947, the State Board of Health authorized issuance of a permit to the General Hospital, Laurel Hill, Secaucus, to carry on scientific experiments upon dogs in connection with the use of a clinical apparatus to assume the function of a lung, and which may become a vital therapeutic agent in cases of asphyxia and conditions of diminished vital capacity.

POLICY ON ADVANCED TRAINING OF PROFESSIONAL PERSONNEL

The following policy with respect to the administration of a program for advanced or graduate training of the Department's professional personnel was adopted by the State Board of Health at its meeting of September 10, 1946:

1. Candidates to be selected for such training on basis of benefits to accrue to the future program of the Department of Health, with due consideration for the temporary loss of their service to the bureau or division concerned and of the individual's probable ability to benefit therefrom.
2. No candidate to receive more than 18 months' training in any ten-year period and not more than 12 months' training at any one time.
3. That the benefits of such training be provided to the selected trainees without loss of salary or compensation to the employees, said trainees to cover costs of tuition, books, travel and other expenses out of their routine salary, or from other non-departmental funds available to the trainee.
4. That each employee granted a period of study shall make a definite statement, in writing, that he will return to and, unless involuntarily separated, will remain in the service of this Department of Health for a period equal to at least twice the interval spent in such training, or a minimum of one year, whichever is the greater.

LEGISLATION

The following legislation of interest to health officials was enacted by the Legislature during the year 1947:

S-21, Chap. 404 (Lewis). Requires coroners to investigate deaths by violence or from unknown causes in counties having no medical examiners nor county physicians.

S-50, Chap. 262 (Wright). Revises act regulating teaching and practice of nursing.

S-66, Chap. 83 (Lewis). Permits State Department of Institutions and Agencies to receive federal grants for hospital and health center construction.

- S-161, Chap. 252 (Proctor). Creates children's treatment center administered by Department of Institutions and Agencies and situated on late Arthur Brisbane estate at Allaire, Monmouth County, for treatment of nervous and otherwise maladjusted children.
- S-192, Chap. 235 (Barton). Exempts from taxes cemeteries and vaults intended to receive ashes of dead persons.
- S-194, Chap. 236 (Barton). Permits owners of cemetery plots intended to contain human ashes to convey such plots to trustees in perpetuity.
- S-195, Chap. 359 (Lewis). Forbids leasing for shellfish cultivation, under-water lands of Mullica River above line extending westerly from south end of Deep Point; excepts existing leases.
- S-196, Chap. 34 (Van Alstyne). Permits counties over 400,000 population, except first class counties, to establish hospitals for sick, disabled, aged, mental, tuberculous or other patients.
- S-206, Chap. 181 (Summerill). Requires State Board of Health to prescribe qualifications of municipal food, drug and meat inspectors; requires such inspectors to be licensed by State Board; prescribes various grades for such licenses.
- S-208, Chap. 323 (Summerill). Permits State Board of Health to buy and distribute free, anti-biotics to treat communicable diseases under other than epidemic conditions.
- S-269, Chap. 375 (Toolan). Requires Division of Water Policy and Supply, Department of Conservation, to specify areas where excess underground water diversion threatens natural water supply; requires permits for certain diversions in such areas.
- S-311, Chap. 377 (Hannold). Regulates construction of wells; provides licensing of well-drillers by Department of Conservation.
- S-335, Chap. 88 (Summerill). Appropriates \$75,000 to State Health Department to buy and distribute smallpox vaccine.
- A-6, Chap. 177 (W. H. Jones). Creates State Department of Health in executive department with State Commissioner of Health, to be licensed physician at \$15,000 a year, Health Council of seven members.
- A-21, Chap. 238 (Mischlich). Forbids state diagnostic center operated by Institutions and Agencies Department to be placed adjacent to mental, penal, or correctional institutions.
- A-100, Chap. 240 (Brescher). Permits municipalities to release lands dedicated for public burial purposes where no burials have taken place.
- A-101, Chap. 207 (Dixon). Permits State Board of Agriculture to designate specific out-of-state areas for cattle importation without accompaniment by tuberculin test chart; requires such cattle to be covered by adequate health certificate at testing point of origin and certified to be free from exposure to diseases.
- A-117, Chap. 40 (Herbert). Permits townships to appoint as recorders attorneys-at-law who are residents of counties in which townships are located.
- A-128, Chap. 59 (Dixon). Permits State Board of Professional Engineers and Land Surveyors to issue registration certificates to "engineers-in-training"; prescribes qualifications for applicants.

- A-129, Chap. 60 (Dixon). Forbids licensing of corporations and partnerships as engineers and land surveyors; requires responsible member of such ventures to hold such licenses; fixes penalties for violations.
- A-143, Chap. 241 (Mathis). Requires swimming pool operators to provide safety devices when pool or place is open to public.
- A-250, Chap. 307 (Herrmann). Permits establishment of extension schools in industrial and labor relations under jurisdiction of State University; appropriates \$50,000.
- A-296, Chap. 176 (Loutrel). Defines "public agency" under State Employees' Retirement System; specifically includes local Boards of Health within such definition.
- A-308, Chap. 215 (Harris). Validates marriages solemnized by courts of record not authorized to solemnize marriages.
- A-314, Chap. 340 (Sanderson). Provides standards for operation of private nursing homes and private hospitals licensed by Department of Institutions and Agencies; provides appointment of Hospital Licensing Board to aid in formulating policies and drafting regulations for licensees.
- A-453, Chap. 124 (McCay). Inserts in Revised Statutes omitted section of public health law relating to distribution of liniments containing narcotics.
- A-455, Chap. 126 (McCay). Amends language of act relating to examination and license of operators of public water and sewage treatment plants.
- A-502, Chap. 391 (McCay). Provides means of dissolving a sewerage authority to which members have not been appointed, or when authority consents, if authority has no debt.
- The following bills were introduced in the Legislature, and were *not* enacted into law:
- S-33 (Farley). Prescribes conditions under which registered assistant pharmacists may take examination for certificates as registered pharmacists.
- S-39 (Bodine). Permits milk and cream to be sold in bottles of capacity of one-third quart.
- S-103 (Proctor). Permits boards of freeholders in other than first or second class counties to establish county health districts or part-county health districts with consent of state health authorities; creates health boards for such districts; permits state financial aid for such districts.
- S-211 (Van Alstyne). Makes records of persons suffering from venereal disease available to Department of Labor or Rehabilitation Commission.
- S-214 (Pascoe). Forbids compulsory anti-rabies vaccination for dogs under P. L. 1941, c. 151, unless pursuant to municipal ordinance.
- S-272 (Young). Vests in boards of freeholders instead of Supreme Court justices power to name county mosquito extermination commissions; requires boards to include in tax levies amount of money approved by directors.

S-285 (Farley). Provides examination and license for dental hygiene practitioners; defines practice.

S-312 (Hannold). Requires permits from Department of Conservation to construct wells more than 50 feet deep; provides fees for such permits.

A-26 (Mischlich). Fixes 25-cent fee for registrars to file burial or removal permits in towns and townships; regulates issuance of such.

A-66 (Shershin). Appropriates \$250,000 to State Health Department to establish Bureau of Cancer Control.

A-83 (Mathis). Requires drug and cosmetics manufacturers to be licensed by State Board of Pharmacy; requires manufacture under supervision of qualified person; prescribes license fee.

A-84 (Mathis). Permits Board of Pharmacy to promulgate regulations and issue temporary permits, such regulations prescribing minimum size requirements, facilities, cleanliness and orderliness in prescription departments.

A-85 (Mathis). Defines terms "pharmacy" and "drug store" under act providing licensing for such establishments.

A-88 (Reiffin). Permits license to practice medicine and surgery of persons graduating from legally incorporated medical colleges, serving one year internship and one year in professional capacity in armed forces or U. S. Public Health Service.

A-97 (Reiffin). Includes dental treatment in medical and surgical aid to be rendered injured workmen under workmen's compensation laws; permits injured workmen to be treated by physician, surgeon or dentist of own choice.

A-122 (Mehorter). Requires state or municipal officers who examine plans and specifications for architectural or engineering work to be registered architects or licensed professional engineers.

A-136 (Artaserse). Requires notices to adjoining owners in removal, by municipalities, of dangerous structures; requires adjoining owners to protect party walls.

A-207 (Hill). Requires sale of meat and poultry by weight; provides penalties for violations.

A-225 (Shershin). Permits pensioning of second class city directors of public health laboratories conducting 25,000 tests, after 25 years' service at age 65.

A-257 (Mathis). Prohibits solemnization of marriages in amusement places or for publicity purposes.

A-301 (Greenbaum). Provides sale of ice cream by weight.

A-309 (Harris). Exempts county tuberculosis hospitals in first class counties which have chief medical examiners, from law requiring county physician to examine bodies of people dying in such institutions which receive state funds.

A-380 (McCay). Supplements *Revised Statutes, Title 9, Article 1, Chapter 6*, which forbids wilful failure to provide medical and surgical treatment for children, to confirm right of parent or guardian to treat ill minors in accordance with religious tenets of churches, provided laws concerning communicable diseases and sanitation are observed.

A-488 (Smith). Permits Board of Pharmacy to promulgate regulations and issue temporary permits, such regulations prescribing minimum size requirements, facilities, cleanliness and orderliness in prescription departments.

P. L. 1947, c. 177, PROVIDING FOR THE REORGANIZATION OF THE
STATE DEPARTMENT OF HEALTH

During the 1947 session of the State Legislature, Assembly Bill 6, providing for the reorganization of the State Department of Health, to take effect on July 1, 1947, was enacted into law as P. L. 1947, c. 177. The following statement of purpose was appended to the aforesaid bill:

"The purpose of this bill is to consolidate the public health activities of the State. For this purpose the bill creates a Department of Health consisting of a commissioner, a public health council and such bureaus as the commissioner may, subject to approval by the Public Health Council, establish.

"The functions, powers and duties of the State Department of Health, the State Board of Health, the State Director of Health, the Perth Amboy Port Health Officer and the Deputy Perth Amboy Port Health Officer are transferred to the new Department of Health. The commissioner will be the chief administrative officer of the department. He will be primarily charged with the responsibility for administering the health programs of the State.

"The Public Health Council will advise the commissioner on matters relating to the preservation and improvement of public health. It will also: (1) enact a State Sanitary Code; (2) study and investigate public health activities in the State; (3) prescribe the qualifications of health officers, sanitary inspectors and plumbing inspectors; (4) prescribe, on the recommendation of the commissioner, (a) what are to be considered as recognized public health activities to be conducted by local health departments, and (b) minimum standards of performance to be met by such departments; (5) hold hearings on charges filed with it to determine whether sufficient cause exists to warrant the suspension or revocation by it of any license issued by the department to a health officer, sanitary inspector, or plumbing inspector; and (6) approve or disapprove the following: (a) the organization of the department as prescribed by the commissioner; (b) the compensation of the directors of the bureaus and other personnel of the department as fixed by the commissioner; (c) the commissioner's abolition of any office or position in the department; and (d) the acceptance by the commissioner of the services of local or federal officials or agencies.

"The acceptance and administration by the commissioner of any grant, gift or bequest to the State for public health purposes, as well as the acceptance by the commissioner of federal grants for public health purposes, will be subject to approval by the Governor and the Public Health Council.

"The bill provides for the co-ordination of the public health activities of the State in the following fields: (1) maternal and child health services; (2) dental health; (3) public health nursing; (4) industrial hygiene; (5) sanitary engineering facilities, and (6) laboratory analyses. It also authorizes the commissioner, subject to approval by the Public Health Council, to establish state health districts to facilitate the integration and co-ordination of local health activities."

APPROPRIATIONS

During the fiscal year ending June 30, 1947, there was appropriated through State and federal sources to the New Jersey State Health Department the sum of \$2,518,688.46.

The State Legislature appropriated \$903,012.55 and the following sums were received from the Federal Government:

Social Security Act, Title V (U. S. Children's Bureau)	\$933,890.14
General health funds (U. S. P. H. S.)	266,020.28
Industrial health funds (U. S. P. H. S.)	30,259.00
Cancer control (U. S. P. H. S.)	67,335.00
Venereal disease control (U. S. P. H. S.)	144,267.82
Tuberculosis control (U. S. P. H. S.)	105,587.47
Rapid treatment facilities (U. S. P. H. S.)	68,316.20

Total federal funds\$1,615,675.91

In addition to the foregoing appropriations, \$78,816.85 was received from dog registration fees, \$51,456.93 of which was used for rabies control. In accordance with the provisions of P. L. 1941, c. 151, the sum of \$27,359.92 was transferred to the General Fund of the State from the revenue received from this source.

STATEMENT OF REVENUE OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1947

Source	Amount
Analyses of water samples	\$3,752.00
Audiometer rental	247.00
Laboratory receipts	3.20
Licenses—cold storage	750.00
“ goat milk	199.24
“ ice cream	6,600.02
“ milk plant	15,800.00
“ narcotics	490.00
“ sewage and water plant operators	4,054.00
Penalties, violations of Food and Drug Laws	3,336.21
“ Dog Control Act	5,953.00
Searches of vital certificates	21,690.58
Miscellaneous (interest on F. C. A. ownership certificate)	23
Total revenue transmitted to the State Treasury	\$62,875.48

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1947

STATE FUNDS—CENTRAL ADMINISTRATION BUREAUS

	Personnel Adm. Rec'd's and Accounts	Bacteri- ology	Chemistry	Dental Health	Engineering and Sanitation	Food and Drugs	Local Health	Negro Health	Vital Statistics	Health Educa- tion	Totals
Salaries	\$34,910.35	\$44,152.64	\$29,950.00	\$73,979.92	\$84,068.37	\$86,133.93	\$17,174.82	\$10,900.00	\$35,464.13	\$4,500.00	\$437,480.10
War adjustment							67.54		156.00		582.58
Laboratory supplies		17,930.23	2,136.68			391.72	1,421.40				10,911.02
Biological supplies							9,902.14				9,902.14
Epidemiologic and mesels serum							7,942.89				7,942.89
Diphtheria toxoid and smallpox vaccines							168.37				168.37
Whooping cough immunization							591.16				591.16
Typhoid vaccine	3,348.67										3,348.67
Stationery and office supplies	113.05			816.49	223.46						1,053.00
Veterinary supplies				645.92							645.92
Engineering, recreational and library supplies	173.25										173.25
Dental health educational material				845.16							845.16
Printing	4,766.07	1,633.67	148.90	305.20	114.67	95.86	470.43	102.22	2,092.69		9,887.08
Biologics							11,988.82				11,988.82
Smallpox vaccine							41,294.28				41,294.28
Mailing expenses	1,082.63	163.69		638.42	2,943.19	10,394.90	1,227.46	1,060.33	396.24		19,884.34
Printing and binding					4,553.92						4,553.92
Binding volumes of blank expenses and death certificates											
Rental of tabulation machines						153.76			671.85		825.61
Freight rent	80.00					211.00			708.00		999.00
Postage	323.91										323.91
Subscriptions											
Maintenance of dental trailer				1570.12							1,570.12
Household expenses		312.71									312.71
Maintenance of boats and plants		450.00									450.00
Dental supplies				4,758.28							4,758.28
Laboratory equipment				1,918.49							1,918.49
Repairs and maintenance				17,060.83							17,060.83
Office furniture and equipment	587.63										587.63
Automotive equipment	180.19										180.19
Compenstation award		13.75									13.75
Totals	\$17,827.90	\$64,154.72	\$29,950.00	\$98,792.22	\$39,094.44	\$106,420.37	\$129,306.10	\$12,962.55	\$89,401.11	\$4,500.00	\$610,045.00

DEPARTMENT OF HEALTH

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1947

STATE FUNDS

APPROPRIATIONS FOR SPECIFIC PURPOSES

	Veneral Disease Control	Maternal and Child Health	Industrial Health	Totals
Salaries	\$21,586.77	\$84,976.83	\$34,151.87	\$140,715.47
War adjustment	36.00	133.95		169.95
Drugs, chemical, clinic supplies	4,660.93		441.80	5,102.73
Baby station supplies		577.20		577.20
Stationery and office supplies	297.59	1,032.19	275.86	1,605.64
Educational material		29.08	54.48	83.56
Printing	976.16	266.95	1,317.33	2,560.44
Traveling expenses	881.60	12,258.75	4,784.43	17,924.78
Freight, express and cartage	3.85	10.98	5.53	20.36
Subscriptions	80.00	15.50	92.50	188.00
Miscellaneous expenses		82.87	45.90	128.77
Current repairs:				
Office equipment	134.94	71.48	4.00	210.42
Scientific and laboratory supplies	59.27			59.27
Totals	\$28,717.11	\$99,455.78	\$41,173.70	\$169,346.59

TOTAL EXPENDITURES FROM STATE FUNDS

Central administration bureaus	\$610,045.00
Appropriations for specific purposes	169,346.59
Total	\$779,391.59

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1947

STATE FUNDS

RABIES CONTROL FUNDS

Salaries	\$29,389.12
Anti-rabies serum	7,408.59
Stationery and office supplies	410.82
Motor vehicle transportation supplies	316.82
Office equipment	1,551.75
Printing	715.05
Traveling expenses	6,121.92
Insurance	8.00
Postage	500.00
Office and storage rent	915.00
Garage rent	123.00
Telephone and telegraph	131.95
Freight, express and cartage	
Miscellaneous expenses	135.20
Current repairs:	
Office and cars	489.42
New cars	3,109.05
Session on rabies control	131.24
Total expenditures—rabies control	\$51,456.93

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1947

FEDERAL FUNDS

Project General Health	Salaries	Travel	Materials, Supplies and Services	Total Expendi- tures
Bureau of Personnel, Administration Records and Accounts	\$16,258.10	\$1,248.65	\$13,660.25	\$31,167.00
Bureau of Bacteriology	35,117.07		8,348.63	43,465.70
Bureau of Chemistry	14,695.65		801.66	15,497.31
Division of Dental Health	22,149.23	999.70	1,063.40	24,212.33
Bureau of Engineering and Sanitation	19,603.04	1,125.67	1,911.17	22,639.88
Bureau of Food and Drugs	18,631.28	5,007.18	3,462.16	27,100.62
Bureau of Local Health Services	10,896.05	1,234.19	4,017.54	16,147.78
Atlantic, Cape May State Health District	6,360.00	796.36	782.32	7,938.68
Bergen, Passaic State Health District	3,372.69	310.83	149.65	3,833.17
Burlington State Health District	8,040.00	1,566.57	610.00	10,216.57
Cumberland State Health District	7,800.00	1,065.11	900.07	9,765.18
Monmouth, Ocean and part of Middle- sex State Health District	2,130.00	120.10	111.10	2,361.20
Somerset, Hunterdon, Middlesex, Camp Kilmer State Health District	3,660.00	530.90	402.12	4,593.02
Sussex State Health District	3,840.00	697.09	929.41	5,466.50
Camden County State Health District	3,600.00	449.71	448.62	4,498.33
Bureau of Vital Statistics	10,434.63	5.14	2,209.47	12,649.24
Bureau of Preventable Diseases	16,005.83	1,331.73	2,184.41	19,521.97
In-service field orientation			1,576.00	1,576.00
Training of personnel			1,925.00	1,925.00
Total expenditures—General Health Fund	\$202,593.57	\$16,488.93	\$45,492.98	\$264,575.48
Division of Adult and Industrial Health	\$10,319.10	\$1,974.77	\$11,461.05	\$23,754.92
Division of Health Education			1,090.83	1,090.83
Total expenditures—adult and industrial health	\$10,319.10	\$1,974.77	\$12,551.88	\$24,845.75
Cancer Control				
Division of Personnel, Administration Records and Accounts	\$1,500.00		\$2,508.27	\$4,008.27
Division of Cancer Control	15,088.08	\$868.07	31,351.36	47,307.51
Training of personnel			260.00	260.00
Division of Health Education	2,400.00		6,789.34	9,189.34
Total expenditures—cancer con- trol	\$18,988.08	\$868.07	\$40,908.97	\$60,765.12
Veneral Disease Control Act				
Bureau of Bacteriology	\$4,850.00	\$43.13	\$5,687.26	\$10,580.39
Division of Veneral Disease Control	93,427.58	7,041.69	27,212.97	127,682.24
Training of personnel			511.00	511.00
Division of Health Education	1,175.21		2,948.06	4,123.27
Total expenditures—Veneral Disease Control Act	\$99,452.79	\$7,084.82	\$36,359.29	\$142,896.90

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1947

FEDERAL FUNDS—Continued

Project	Salaries	Travel	Materials, Supplies and Services	Total Expendi- tures
Total expenditures—rapid treat- ment facilities			\$61,989.69	\$61,989.69
<i>Title V, Social Security Act</i>				
Total expenditures—maternal and child health	\$409,344.17	\$11,633.80	\$359,411.28	\$780,389.25
<i>Tuberculosis Control</i>				
Division of Tuberculosis Control	\$41,348.85	\$8,467.74	\$35,909.68	\$85,726.27
Division of Health Education	14,381.13	1,093.11	3,350.74	18,824.98
Total expenditures—tuber- culosis control	\$55,729.98	\$9,560.85	\$39,260.42	\$104,551.25
Total federal funds expended..	\$796,427.69	\$47,611.24	\$595,974.51	\$1,440,013.44

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1947

COMBINED EXPENDITURES—STATE AND FEDERAL FUNDS

Salaries (and war adjustment)—

State		\$578,927.16	
Federal: General health	\$202,593.57		
Adult and industrial health	10,319.10		
Cancer control	18,988.08		
Venereal Disease Control Act	99,452.79		
Title V—maternal and child health...	409,344.17		
Tuberculosis control	55,729.98		
		\$796,427.69	
			\$1,375,354.85
<i>Other Expenses—</i>			
State		\$200,464.43	
Federal: General health	\$61,981.91		
Adult and industrial health	14,526.65		
Cancer control	41,777.04		
Venereal disease control	43,444.11		
Rapid treatment facilities	61,989.69		
Title V—maternal and child health...	371,045.08		
Tuberculosis control	48,821.27		
		\$643,585.75	
			\$844,050.18
Total expended—state and federal funds			\$2,219,405.03
Expended for rabies control from dog registration fees			51,456.93

Report of the Bureau of Bacteriology

For the Year Ending June 30, 1947

By JOHN H. SPOONER, JR., Chief

The Bureau of Bacteriology completed its biggest year on June 30, 1947, in number of specimens examined for doctors and health authorities throughout the State. This most satisfying achievement was accomplished in spite of the increased cost of all laboratory supplies, cramped quarters and fixed State budget, which did not take into account the 30 to 40 per cent increase in cost of supplies. The financial problem was somewhat relieved by the allocation of additional federal funds near the end of the fiscal year.

A total of 360,150 serological, bacteriological and parasitological specimens were examined. Not counted in this figure, 2,120 Rh factor determinations were made for physicians. These were done as a convenience to the doctors since this determination is not at present a routine procedure in the laboratory. There was an increase in nearly all sections of the work, resulting in the examination of 38,822 more specimens than last year. (See Table I below.) The greatest part of this increase was in the serology service for syphilis which examined 307,432 specimens as well as the Rh factor determination above mentioned. This figure is the number of specimens examined and does not show the total tests made as many bloods have a repeat test, and those showing a reaction in the routine Mazzini are checked by the Kolmer complement fixation, Kahn precipitation and/or the Kline test. (See Table III below.)

Because there had never been established any minimum requirements for laboratories seeking approval from the State, and there seemed a definite need for same, the Director requested the Board of Health to appoint a committee to draw up such rules and regulations. After considerable study, Dr. Fischelis, chairman of the committee, with the assistance of Dr. Bergsma, Deputy Director of Health, submitted the following minimum requirements which were adopted by the Board of Health at their April, 1947, meeting:

LAWS AND SANITARY CODE REGULATIONS RELATING TO THE ISSUANCE OF CERTIFICATES
OF APPROVAL OF LABORATORIES BY THE NEW JERSEY STATE
DEPARTMENT OF HEALTH

*References to Existing Law and Regulations Authorizing Certification and
Laboratory Testing*

R. S. 26:2-37. Analyses of samples; charges; disposition of receipts. The State Department may cause to be made, in the state laboratory, analyses and examinations of samples of water, food, drugs, pathological materials, and similar substances, when requested to do so by any person, private or municipal corporation or institution in this State.

Pre-marital. R. S. 37:1-23. Standard laboratory blood test; when made. For the purpose of this act a standard laboratory blood test shall be a test for syphilis approved by the Director of Health of New Jersey, and shall be made at a laboratory approved to make such tests by the Director of Health of New Jersey. Such laboratory tests as are required by this act shall be made on request without charge at the Department of Health of the State of New Jersey. To be valid such test shall be made not more than thirty days before the issuance of the marriage license to which it applies. (P. L. 1938, c. 126.)

Prenatal. R. S. 26:4-49.2. Blood test; supervision. For the purpose of this act a standard serological test shall be a test for syphilis approved by the Director of Health of New Jersey, and shall be made at a laboratory approved to make such tests by the Director of Health of New Jersey. Such laboratory tests as are required by this act shall be made on request without charge at the Department of Health of the State of New Jersey. (P. L. 1938, c. 41.)

Chapter VI, Regulation 12—Sanitary Code. Diphtheria; material for cultures to be submitted. In every case of illness which there is reason to believe may be diphtheria, it shall be the duty of the attending physician, or if there be no physician in attendance, then of the nurse or other person in attendance, to take cultures forthwith from the throat and nose of the person suspected of being infected, or to permit the health officer or his representatives to take such cultures. Provided, however, that if such cultures are forthwith taken by the health officer having jurisdiction, or his representative, it shall not be necessary for the attending physician or nurse to take such cultures. Such cultures shall be immediately submitted by the person taking the same, for examination, to the laboratory of the State Department of Health, or to a laboratory which has been approved by the Director of Health of New Jersey.

Chapter VI, Regulation 34-A—Sanitary Code. It shall be the duty of the local board of health, when a case of typhoid fever or paratyphoid occurs within its jurisdiction to keep such case under supervision until the temperature has remained normal for seven successive days and until two successive specimens of both the intestinal discharges and the urine of the patient, taken at an interval of not less than seven days, have been found to be free from typhoid or paratyphoid bacilli, said examination to be made in the laboratory of the State Department of Health or in a laboratory approved by the Director of Health for such examinations.

Chapter XI, Regulation 55-B—Laboratories. All cultures, specimens, etc., required by Regulation 55 and 55a must be examined in laboratories approved by the State Department of Health.

Chapter VI, Regulation 41—Sanitary Code. Inspection of laboratories. The Director of Health of New Jersey may cause to be inspected every bacteriological or chemical laboratory doing work for the health authorities of the State or for any county or municipality thereof, and shall report the result of such inspection to the local authorities using such laboratory. He may also issue certificates of approval of such laboratories, such certificates to be revocable for cause at any time. No laboratory not approved by the Director of Health shall continue to do any work for any local board of health after having received due notification from the Director of Health that its methods are disapproved.

Minimum Requirements for Issuance of Certificates

Personnel requirements.

1. Every laboratory applying for a certificate shall be in charge of a competent supervisor who may be designated as "Director," "Serologist-in-Charge," or "Bacteriologist-in-Charge."

2. The Supervisor shall meet the following minimum qualifications:

a. He shall be a person of known integrity and professional ability who shall be capable of conducting a laboratory in which satisfactory standards of work are maintained at all times and he shall possess such personal qualifications as: ability to exercise meticulous care in technique, good judgment, sense of responsibility, ability to cooperate with and supervise the work of others.

b. He shall possess a doctorate degree in philosophy, science, public health, or medicine, with adequate experience in laboratory procedures, or

c. He shall have graduated from a college or university of recognized standing with at least a Bachelor of Science degree in bacteriology, biology, or allied sciences, and shall have had four years of acceptable laboratory experience, two of which shall have been spent in a public health laboratory, or its equivalent, preferably having served as assistant bacteriologist or assistant serologist.

3. Supervisors shall devote their full time, or at least a major portion of their time, to laboratory supervision. In the absence of a full-time Supervisor the person next in charge shall meet the full qualifications of the office of supervisor.

Laboratory quarters, location and equipment.

1. The laboratory shall be housed in well lighted, properly ventilated and adequately spaced quarters, to provide for the type of work for which a certificate is requested. Laboratories shall not be located in living quarters unless there are provisions for separate entrance, and plumbing fixtures and other facilities used for laboratory purposes are separate from those used for household purposes.

2. The laboratory shall be equipped with gas, electricity, and hot and cold running water. The minimum equipment shall consist of the following apparatus, meeting the requirements for the tests to be conducted: Autoclave, dry air sterilizer, constant temperature 37° incubator, microscope, centrifuge, constant temperature water bath and refrigerator. All necessary glassware, lamps, burners, reagents, stains, antigens and sera must be of recognized standard and good quality and available at all times for the various tests for which a certificate is requested.

3. The laboratory and equipment shall be subject to inspection and reinspection at any time.

4. Where laboratory animals are kept, adequate sanitary quarters shall be maintained separate from the rooms in which laboratory tests are conducted.

Laboratory Methods.

1. Serologic tests for syphilis as prescribed by the latest recommendations of their author, shall be the general rule.

2. Any modification of such tests must first be approved by the State Department of Health.

3. The basis of evaluation shall be:

a. Specificity: Standard of specificity (per cent of negative sera reported as negative) shall be at least 99% as obtained by the control laboratory.

b. Sensitivity: Standard of sensitivity (per cent of positive sera reported as positive) shall not be more than 10% below that obtained by the control laboratory.

4. The laboratory shall obtain a high degree of accuracy in identification of slides and cultures submitted for examination in any diseases for which the laboratory is to receive or has received a certificate.

Records.

1. All laboratories applying for a certificate must show facilities for keeping complete laboratory records. All such records shall be kept on file for a minimum of five years.

2. Records must be kept up to date and open to inspection by authorized representatives of the State Department of Health.

Ethical Considerations.

1. The laboratory shall conform to ethical professional practice. Advertising of the laboratory shall be restricted to announcements of the tests for which a certificate is granted and shall be so worded as not to give the impression of general coverage of procedures not listed on the certificate.

2. Reports shall be confined to laboratory findings only.

Eligibility for and Invalidation of Certificates.

1. No laboratory, other than a laboratory conducted by a department of health, shall be eligible to apply for a certificate until it has been established for at least one year.

2. Any change in the supervisor of a laboratory shall automatically invalidate any existing certificate and reapplication for a certificate is required. The State Department of Health shall be notified immediately of changes of responsible personnel which may occur. Responsible personnel shall be construed to include technicians who are actually performing and reporting results of examinations, but under supervision of the supervisor.

Special Requirements.

1. On all positive laboratory reports for venereal disease, the supervisor shall forward copies of such reports directly, within a period of seven days after such a report has been issued, to the Division of Venereal Disease Control, State Department of Health, Trenton, N. J.

2. In cases of reportable communicable disease, excepting venereal diseases, where evidence of such disease is found by the laboratory examination, the supervisor shall forward immediately a report of such findings to the physician who submitted the specimen and also a copy to the health officer having jurisdiction over the municipality in which the person from whom the specimen was obtained is located. He shall retain positive slides referable to communicable diseases for at least six months.

3. On each report for release from isolation or quarantine, whether said report is positive or negative, on each specimen of *C. diphtheriae*, *Eberthella*, *Salmonella* and *Shigella*, the supervisor shall forward immediately a report to the physician who submitted the specimen and also a copy to the health officer having jurisdiction over the municipality in which the person from whom the specimen was obtained is located.

4. Specimens for evaluation and comparative examinations may be sent to a laboratory by the State Department of Health at any time and the supervisor of the laboratory shall report the results of the examination of such specimens promptly to said Department.

5. Each certificate granted to a laboratory authorizing the performance of specific tests is automatically invalidated at the end of the calendar year for which it was issued. Before any such certificate can be granted the State Department of Health must receive an application for such certificate on a form supplied by the said Department. Each such routine, annual request for a certificate must reach the State Department of Health not later than the first day of November preceding the beginning of the calendar year for which a certificate is desired. First requests for a certificate or requests for a new certificate following invalidation of a previous certificate for whatever reason may be submitted at any time.

6. Every laboratory granted a certificate to perform blood tests for syphilis under the pre-marital law (R.S. 37:1-23) and prenatal law (R. S. 26:4-49.2) shall have facilities and requests for the examination of at least 100 serologic specimens for syphilis per month.

7. Every laboratory, other than a laboratory conducted by a department of health, applying for a certificate shall have the endorsement of at least ten physicians desiring the facilities of such laboratory.

8. Every laboratory applying for a certificate shall furnish evidence of the need for its services.

If after reading the above regulations, you believe that your laboratory can qualify, you may make application to the State Department of Health, Bureau of Bacteriology, and forms will be sent to you to fill out.

During the year requests were received for Rh factor determination. The Bureau, rather than disappoint the physicians submitting the specimens, performed these examinations and reported the results. In order to ascertain what other State laboratories were doing in this problem a questionnaire was sent out to all State laboratory chiefs. Returns were received from 46 out of the 48 submitted. The following questions were asked: Was routine prenatal Rh typing being performed? To what extent was it carried out? Were Rh negative women further checked? Were husbands of Rh negative women checked? If not performing Rh typing, were there a number of requests to do so? Was it considered an activity of the near future and could the test

in their opinion be performed satisfactorily under present knowledge on blood submitted by mail? There was also space left for the State laboratory directors to comment on the questions. The various and interesting answers received have been tabulated and a copy of this questionnaire may be obtained by writing to the Bureau of Bacteriology, State Department of Health.

The work of the Bureau of Bacteriology may be summarized in a general way by the description of the following examinations made: performs diagnostic tests for syphilis; examines smears for gonorrhoea (gonococcus culture is performed by the Division of Venereal Disease Control); cultures and identifies pathogenic bacteria; performs agglutination and culture tests for the enteric diseases; makes smears, concentration method and animal inoculations for tuberculosis; examines stools for intestinal parasites, ova and cysts; makes animal brain and mice inoculations for rabies; examines blood smears for malarial and other tropical diseases; conducts investigations of food products suspected of food poisoning; makes virulence tests; prepares antigens, vaccines and media and inspects laboratories desiring approval to perform premarital and prenatal blood tests.

TABLE I

NUMBER OF SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1947

Diphtheria	5,812
Tuberculosis	11,909
Blood agglutinations	6,982
Enteric diseases (feces and urine)	11,548
Gonorrhoea	11,409
Syphilis	307,432
Miscellaneous specimens	5,013
<hr/>	
Total	360,105
Rh factors	2,120

This table shows an increase in volume of work in all categories except gonorrhoea smears over that of the previous year. The total number of specimens examined last year was 321,610.

TABLE II

SPECIMENS OF BLOOD AND SPINAL FLUID EXAMINED FOR SYPHILIS DURING YEAR ENDING

Month	JUNE 30, 1947, BY MONTHS				
	Positive	Doubtful	Negative	Unsatisfactory	Total
July	1,788	764	25,476	1,063	29,091
August	1,871	791	25,453	706	28,821
September	1,706	617	25,418	682	28,423
October	1,975	548	24,905	660	28,088
November	1,611	384	19,325	566	21,886
December	1,482	358	17,908	675	20,423
January	1,767	545	23,749	782	26,843
February	1,377	409	18,720	679	21,185
March	1,579	445	22,364	578	24,966
April	1,809	547	22,806	537	25,699
May	1,956	792	22,087	570	25,405
June	1,669	624	23,723	586	26,602
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	20,590	6,824	271,934	8,084	307,432

This table shows 6.7% positive, 2.2% doubtful, 2.6% unsatisfactory, and 88.5% negative.

The Mazzini flocculation test is now used as a screen test. Negative specimens are then reported. Specimens showing a reaction of positive or doubtful or unsatisfactory are further tested by the Kolmer complement fixation test and the Kahn precipitation test. When there is insufficient serum for these tests a Kline diagnostic may be used as a check on the original results. The results of all tests are then reported to the physician with an interpretation as to positive, doubtful or negative based upon the results of the tests alone. Positive and doubtful tests are also reported in degrees of positiveness. The interpretation of "positive" is in no way to be construed as a diagnosis of syphilis in the absence of clinical symptoms of the disease. The Kolmer, Kahn or Mazzini quantitative test will be performed on specimens if the physician so requests.

Table III shows the number of additional tests made on specimens of blood and spinal fluid as well as those for applicants for marriage, required by the New Jersey premarital law, and on expectant mothers, required by the prenatal law.

TABLE III

Number of premarital specimens	56,433
Number of positive premarital specimens	916
Number of prenatal specimens	48,325
Number of positive prenatal specimens	668
Number of spinal fluid specimens	1,509
Number of Mazzini tests	296,255
Number of Kline tests	9,534
Number of Kahn tests	9,946
Number of Kolmer tests	30,732
Number of quantitative Kolmer tests	4,754

The Kolmer quantitative test is made on all spinal fluids, 1,509 for the year. The Bureau now supplies a special container for submitting spinal fluid specimens by mail. The tubes are prepared with a 1-10,000 solution of "Merthiolate" to act as a preservative. These containers may be obtained in any quantity upon request.

There were 7,894 more premarital examinations and 6,732 more prenatal examinations this year. 1.6% of the premarital specimens were found positive; 1.4% of the prenatal gave positive reactions. This percentage very closely approximates the figures of last year. Premarital certificate forms are also furnished to private and local health laboratories throughout the State which have been approved by the State Department of Health to make such tests. These are recognized for marriage only within the State.

The New Jersey Department of Health recognizes, and will accept for marriage licenses, blood tests performed in all State Department of Health laboratories, all service laboratories throughout the United States, the city laboratories of New York, Philadelphia and Baltimore. All State laboratories and the above city laboratories have been furnished with our premarital certificate forms or may obtain them upon request.

Since the list of States requiring premarital blood tests was published in the 1943 annual report, a number of States, Kansas, Delaware and Montana recently, have passed such laws. The following list of States with this information is the most recent we have:

PREMARITAL LAWS JUNE, 1947

State	Period for Which Test Is Acceptable	Form Used	Remarks
Alabama	.....	.....	Physical examination of male only.
Alaska	.....	.....	No law.
Arizona	.....	.....	No law.
Arkansas	.....	.....	No law.
California	30 days. 3-day waiting period.	California	Any licensed physician may collect specimen, make the physical examination and sign the certificate.
Colorado	.....30 days	Colorado	Any licensed physician may collect specimen, make the physical examination and sign the certificate.
Connecticut	.....40 days. 5-day waiting period.	Connecticut	Any licensed physician may collect specimen, make the physical examination and sign the certificate.
Delaware	.....30 days. 4-day waiting period for non-residents; 1 day for residents	Delaware	Specimen may be submitted by any physician—or one in the armed forces. One person may apply for license.
District of Columbia	.....30 days	Florida	Any licensed physician may collect specimen, make the physical examination and sign the certificate.
Florida	.....30 days	Florida	Any licensed physician may collect specimen, make the physical examination and sign the certificate.
Georgia	.....30 days. No waiting period	Idaho	No law.
Idaho	.....30 days. No waiting period	Idaho	Any licensed physician may collect specimen and sign the serological report must accompany certificate.
Illinois	.....15 days. then license is good for 30 days	Illinois	Any licensed physician may collect specimen and sign the copy of serology report must be sent to Dept. of Health.
Indiana	.....30 days	Indiana	Blood specimen may be taken by any licensed physician. Applicant must sign in presence of physician licensed in Illinois. C. C. test required.
Iowa	.....20 days. License is also good for 20 days for non-residents	Iowa	Any licensed physician may collect specimen and sign the certificate. One day make examination (or one in armed forces). One day physical and physical examination.
Kansas	.....30 days for residents; 20 days for non-residents	Kansas	Any licensed physician may make physical examination.
Kentucky	.....15 days. License good for 30 days. 3-day waiting period	Kentucky	Any licensed physician may make examination and sign certificate.
Louisiana	.....30 days	Louisiana	Will accept any state dept. of health lab. Kentucky physician must make physical.
Maine	.....30 days	Maine	A certificate form must be used with licensed physician with respect to the male only within 15 days of examination.
Maryland	.....48-hour waiting period	Maryland	Physician in Maine, or physician graduate of Class A licensed school may make physical and take blood outside Maine.
Massachusetts	.....30 days	Massachusetts	No law.
Michigan	.....30 days. 5-day waiting period	Michigan	Will accept tests from Mass., New Jersey and physicians licensed in other States. Any licensed physician may collect specimen, make physical and sign certificate.

PREMARIAL LAWS JUNE, 1947—Continued

State	Period for Which Test Is Acceptable	Form Used	Remarks
Minnesota	30 days	No law.	No law.
Mississippi	30 days	No law.	No law.
Missouri	15 days	Missouri	Any licensed physician may sign certificate.
Montana	30 days	Montana	Any licensed physician may sign certificate.
Nebraska	30 days	Nebraska	Affidavit from each applicant as to freedom from venereal disease.
Nevada	30 days	New Hampshire	No law.
New Mexico	30 days	New York City	No law.
New York	30 days	New York State	Any licensed physician may sign certificate.
North Carolina	30 days	North Carolina	Any licensed physician may sign certificate.
North Dakota	30 days	North Dakota	Any licensed physician may sign certificate.
Ohio	30 days	Ohio	Physical examination must be made by an Ohio physician or one in the armed forces.
Oklahoma	10-day waiting period	Oregon	No law.
Oregon	30 days	Pennsylvania	Physical examination must be made by a physician licensed in and residing in Oregon.
Pennsylvania	30 days	Pennsylvania	Physical examination must be made within 10 days of marriage.
Puerto Rico	40 days	Rhode Island	Physical examination must be made by a Rhode Island physician.
Rhode Island	40 days	Rhode Island	Physical examination must be made by a Rhode Island physician.
South Carolina	20 days	South Dakota	No law.
South Dakota	20 days	South Dakota	Any licensed physician may make physical and sign certificate.
Tennessee	30 days	Tennessee	Any licensed physician may make physical and sign certificate.
Texas	15 days, plus 30 days	Utah	No law, but the male must have a certificate from a Texas physician that he is free from venereal disease.
Utah	30 days	Utah	Any licensed physician may make physical and sign certificate.
Vermont	30 days	Vermont	Any licensed physician may make physical and sign certificate.
Virginia	30 days	Virginia	Any licensed physician may make physical and sign certificate.
Virgin Islands	30 days	Virgin Islands	No law.
Washington	30 days	West Virginia	No law.
West Virginia	30 days	West Virginia	Any licensed physician may make physical and sign certificate.
Wisconsin	15 days	Wisconsin	Any licensed physician may make physical and sign certificate. No forms—copy sample form.
Wyoming	30 days	Wyoming	Physical examination must be made by a physician licensed in Wyoming.

EVALUATION STUDY

The Bureau of Bacteriology again participated in 1947 in the evaluation study conducted by the United States Public Health Service for State department of health laboratories. The control on the evaluation was performed by the author of the various standard tests.

Results are considered satisfactory by the United States Public Health Service rating when the specificity tests are 99% and the sensitivity tests within 10% of the author's standard.

Following are the results obtained in the Bureau of Bacteriology on 213 sera tested in the syphilitic group and 135 in the non-syphilitic group:

	Sensitivity	Specificity
Mazzini (flocculation)		
Author control	77.1	100.0
Bureau of Bacteriology	84.7	100.0
Kolmer (complement fixation)		
Author control	83.4	98.5
Bureau of Bacteriology	82.2	98.4
Kahn Precipitation		
Author control	81.6	100.0
Bureau of Bacteriology	81.2	98.9
Kline Diagnostic Precipitation		
Author control	83.4	100.0
Bureau of Bacteriology	83.8	100.0

The Bureau of Bacteriology also performed experimentally the Mazzini quantitative test and submitted its findings to the United States Public Health Service. This procedure was commented on by Dr. J. R. Heller, Jr., Medical Division Chief, Venereal Disease Division, as follows: "The cooperation of the States in submitting the results of quantitative procedures is sincerely appreciated."

There were 11,409 smear examinations made during the year. 12.5% were reported as containing typical intracellular Gram negative diplococci.

TABLE IV

SPECIMENS EXAMINED FOR NEISSERIA GONORRHOEAE (PUS SMEARS) DURING YEAR ENDING JUNE 30, 1947, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	185	952	56	1,193
August	163	924	39	1,126
September	148	805	30	983
October	151	928	33	1,112
November	100	730	16	846
December	124	703	29	856
January	112	743	18	873
February	69	711	17	797
March	99	818	21	938
April	83	814	24	921
May	90	721	24	835
June	110	796	23	929
	1,434	9,645	330	11,409

Nose and throat culture specimens for *C. diphtheriae* increased over last year, last year's figures being 5,297. Table V shows 4.3% were reported as containing organisms resembling *C. diphtheriae*. Animal inoculations and bio-chemical culture reactions were performed upon these specimens before they were reported as positive.

TABLE V

SPECIMENS EXAMINED FOR CORYNEBACTERIUM DIPHTHERIAE DURING YEAR ENDING JUNE 30, 1947, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	29	383	22	434
August	22	364	16	402
September	10	267	10	287
October	21	468	10	499
November	16	388	12	416
December	30	399	19	448
January	28	490	35	553
February	21	840	59	920
March	8	399	20	427
April	15	366	41	422
May	41	450	42	533
June	8	419	44	471
	249	5,233	330	5,812

Specimens for examination for *M. tuberculosis* increased by 1,989 over those examined last year. 10.5% were reported as positive.

TABLE VI

SPECIMENS EXAMINED FOR MYCOBACTERIUM TUBERCULOSIS DURING YEAR ENDING JUNE 30, 1947, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	106	798	53	957
August	142	816	27	985
September	93	745	13	851
October	113	917	17	1,047
November	69	814	6	889
December	93	679	12	784
January	101	1,040	28	1,169
February	95	828	8	931
March	100	972	10	1,082
April	132	1,027	10	1,169
May	101	896	21	1,018
June	114	896	17	1,027
	1,259	10,428	222	11,909

Results of animal inoculations for *M. tuberculosis* are shown in Table VII.

TABLE VII

GUINEA PIG INOCULATION FOR *M. TUBERCULOSIS*

Material	Positive	Unsatisfactory	Negative
Gastric contents	17	12	183
Sputa	11	13	76
Urines	8	7	77
Chest fluids	3	4	37
Pleural fluids	3	2	24
Spinal fluids	1	1	8
Synovial fluids	..	1	5
Miscellaneous fluids	8	2	33
	51	42	443

Total animal inoculations, 536.

Blood agglutination tests were performed for typhoid O and H antigens, para-typhoid A and B, undulant fever, tularemia and the Weil-Felix reaction for typhus and Rocky Mountain spotted fever. The laboratory prepares its own antigens for these tests and uses both OX19 and OX2 for the Weil-Felix reaction. We also have an OXK antigen which can be utilized to check for Tsutsugamushi fever on request.

Requests for blood agglutination increased slightly over those performed last year.

TABLE VIII

BLOOD AGGLUTINATION TESTS DURING YEAR ENDING JUNE 30, 1947

	Positive	Negative	Unsatisfactory	Total
Typhoid fever	114	2,323	57	2,494
Para-typhoid fever	25	1,614	17	1,656
Undulant fever	91	2,490	37	2,618
Rocky Mountain spotted and typhus fevers	11	128	1	140
Tularemia .....	..	74	..	74
	<u>241</u>	<u>6,629</u>	<u>112</u>	<u>6,982</u>

There were 3,385 additional cultural examinations (feces and urine) for enteric pathogens made this year. This work also included the more complete identification of the Salmonella into their groups.

TABLE IX

FECES AND URINE SPECIMENS EXAMINED FOR ENTERIC PATHOGENS FOR THE YEAR ENDING JUNE 30, 1947

	Positive	Negative	Unsatisfactory	Total
Eberthella typhosa	75	3,539	200	3,814
Salmonellas	40	3,574	200	3,814
Shigellas .....	..	3,614	200	3,814
No examination .....	..	..	106	106
	<u>115</u>	<u>10,727</u>	<u>706</u>	<u>11,548</u>

In the specimens classified as "Miscellaneous," animal heads for rabies and brains found to be positive continued to increase. There were 60 positives last year, 114 this year. The number of heads submitted for examination more than doubled, 162 last year, 379 this year. 43% of the heads submitted were found to contain typical intracellular Negri bodies diagnostic of rabies. Positive malaria smears showed an expected decrease, but still ran surprisingly high, 42 for this year compared with 61 last year.

TABLE X

MISCELLANEOUS SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1947

Specimen for	Positive	Negative	Unsatisfactory
Rabies	114	237	28
Bacterial infection (blood, body fluids, pus, sputum, urine, etc.)	297	67	12
Dysentery (blood reaction for) .....	..	4	1
Globulin .....	..	76	..
Gonococcus infection (eye smears)	2	32	2
Gonococcus infection (knee fluid) .....	..	1	..
Gonococcus infection (ear specimen) .....	..	1	..
Hemolytic streptococci	227	755	..
Infectious Mononucleosis	70	191	1
Malaria	42	244	3
Meningococci	1	2	..
Occult blood	4	2	..
Ophthalmia neonatorum	9	..	..
Ova and parasites	17	467	3
Pneumonia	1	6	2
Treponema pallida .....	..	2	2
M. tuberculosis (body fluids, pus, feces, urine, etc.)	85	826	7
Vincent's angina	123	609	3
Special examination of eating utensils	87	223	..
Other unusual examinations	39	85	1
Total	<u>1,118</u>	<u>3,830</u>	<u>65</u>
Grand total	5,013		

The following tables give further information on the rabies situation as reflected by laboratory examinations in New Jersey. These statistics are for the Bureau of Bacteriology only. Examinations for rabies are also made in the health laboratories of East Orange, Elizabeth, Irvington, Newark, Paterson, Plainfield, Hudson County laboratory, Jersey City and the Bergen County Hospital laboratory at Paramus.

TABLE XI

RABIES SPECIMENS (SPECIES OF ANIMALS) EXAMINED DURING YEAR ENDING
JUNE 30, 1947

Dogs—Positive, 111; negative, 187; unsatisfactory, 21.
Cats—Positive, 2; negative, 27; unsatisfactory, 6.
Cows—Positive, 1; negative, 7.
Skunks—Negative, 1.
Rabbits—Negative, 6.
Squirrels—Negative, 1; unsatisfactory, 1.
Chipmunks—Negative, 1.
Sheep—Negative, 1.
Foxes—Negative, 3.
Groundhogs—Negative, 1.

YEARLY TOTALS OF ANIMALS EXAMINED FOR RABIES FROM 1940 TO 1947, INCLUSIVE

	1940	1941	1942	1943	1944	1945	1946	1947
Positive	116	76	45	8	8	12	60	114
Negative	140	144	129	103	90	104	94	237
Unsatisfactory	15	7	17	15	7	18	8	28
Total	271	227	191	126	105	134	162	379

MUNICIPALITIES, ARRANGED BY COUNTIES, FROM WHICH RABID ANIMALS WERE RECEIVED
DURING YEAR ENDING JUNE 30, 1947

Essex County—Bloomfield, 3; East Orange, 1; West Orange, 1.
Hunterdon County—Clinton, 1; Lebanon, 1; Ringoes, 1; Stockton, 1.
Mercer County—Trenton, 1.
Middlesex County—New Brunswick, 13.
Monmouth County—Shrewsbury, 1.
Morris County—Madison, 1; Mendham, 1; Morristown, 5.
Ocean County—Toms River, 1.
Passaic County—Paterson, 6; Totowa, 1; West Paterson, 1.
Somerset County—Basking Ridge, 2; Bernardsville, 2; Bound Brook, 1; North Plainfield, 2; Somerville, 9.
Sussex County—Newton, 2.
Union County—Cranford, 4; Elizabeth, 2; Fanwood, 4; Linden, 6; Mountainside, 1; Plainfield, 3; Rahway, 2; Roselle, 5; Roselle Park, 2; Summit, 10; Union, 2; Westfield, 12.
Warren County—Washington, 3.

When no evidence of rabies is found in the nerve cells of the brain on microscopic examination, and the animal has bitten a person or persons, Swiss mice are inoculated intradurally and kept under observation for three to four weeks. The following table shows the source of material inoculated into Swiss mice:

TABLE XII
MICE INOCULATIONS FOR RABIES

Material	Positive	Negative
Dog brain	3	139
Cat brain .....	..	26
Rabbit brain .....	..	4
Squirrel brain .....	..	4
Cow brain .....	..	1
Fox brain .....	..	3
Chipmunk brain .....	..	1
Total	3	178

The Bureau of Bacteriology was handicapped all through the year by the shortage of supplies and delay in filling orders. To explain this to doctors and health authorities the following article was published in the *Public Health News* and the *Journal of the Medical Society of New Jersey*:

"LABORATORY SUPPLIES SHORT"

"The Bureau of Bacteriology of the New Jersey State Department of Health is experiencing the same postwar laboratory supply problem that other laboratories throughout the country are facing. Deliveries of glassware, rubber stoppers, mailing containers, cardboard boxes, blood letting needles, and other supplies are long delayed and the increased cost of these articles is a burden on an agency with a fixed budget.

"All reserve supplies of materials in the Bureau of Bacteriology have now been exhausted and the laboratory is operating on a day-to-day supply of mailing outfits. Yet the laboratory is being called upon to perform more examinations than ever before and must also supply the physicians now returning to practice with services and mailing outfits.

"Medical practitioners can help the laboratory to a certain degree by returning any unused mailing outfits which are not needed, any incompletely assembled outfits or ones that have been stored because they are no longer believed sterile. They may be returned to Bureau of Bacteriology, New Jersey State Department of Health, State House, Trenton, New Jersey, postage or express collect."

TABLE XIII

MAILING CASES FOR THE COLLECTION AND TRANSMISSION OF SPECIMENS SUPPLIED TO
PHYSICIANS AND LOCAL HEALTH DEPARTMENTS THROUGHOUT THE
STATE DURING YEAR ENDING JUNE 30, 1947

Diphtheria (regular mailing cases)	7,931	
Extra swabs	936	
		8,867
Tuberculosis mailing cases		15,055
Typhoid fever mailing cases		1,033
Malaria mailing cases		527
Gonorrhoea mailing cases		13,795
Feces and urine mailing cases		6,329
Syphilis mailing cases	324,326	
Treponema pallida mailing cases		21
Ophthalmia neonatorum mailing cases		27
Pneumonia mailing cases		24
Total		369,974

The Bureau of Bacteriology supplies media to other bureaus in the State service, and small local and private laboratories throughout the State. The Bureau prepared and supplied 1,999,400 cc. of various kinds of media during the fiscal year.

Report of Bureau of Chemistry

For the Fiscal Year of July 1, 1946 to June 30, 1947

By JOHN E. BACON, *Chief*

The Bureau of Chemistry makes chemical, bacteriological, microscopical and toxicological examinations of samples of foods, drugs, water, sewage and trade wastes collected by the Department's representatives in the enforcement of the public health laws of New Jersey. The facilities of the laboratory are also extended to local boards of health, State Department of Public Instruction, State Purchasing Commissioner, New Jersey State Police, Fish and Game Commission, Milk Control Board, State institutions and State Tax Department. Analyses are also made of various samples of foods and supplies purchased under specifications for institutional use, rural school waters submitted by local boards of education; drinking water, lakes and streams from camps maintained by benevolent associations and other miscellaneous samples.

Assistance is given to local boards of health and water works laboratories desiring to install chemical control or supplement existing laboratory facilities. Instructions in chemical procedures are given the personnel of such laboratories when requested.

The Legislature eliminated the Department's request for monies to provide personnel, equipment and space for desired laboratory control of the bread enrichment act, P. L. 1946, c. 86. The enforcement of said act, therefore, is limited to such regulation and enforcement as can be made by the inspection personnel of the Bureau of Food and Drugs.

Fluorine in the public water supplies of New Jersey: It has been conclusively proven by many investigations that the causative agent for the production of mottling of teeth in some communities is the excessive fluorine in the drinking water supply. In New Jersey there is a small area having a 15-mile radius around the town of Glassboro where the fluorine content of the public water supplies frequently exceeds one part per million, the accepted safety limit, but dental surveys show only slight evidence of dental fluorosis in any of these communities. The towns have artesian well supplies 500-700 feet deep. On the other hand, many examinations of the waters from shallow wells within this area show the fluorine content to be of the magnitude of 0-0.2 p.p.m.

Around 1940 the public health concept of the deleterious action of fluorine in drinking water began to change, and it is now generally accepted that

small amounts of fluorine, not exceeding 1-1.5 p.p.m., is very beneficial; decay of the teeth is inhibited, yet mottling of the enamel of the teeth is not produced by such amounts. The new drinking water standards of the United States Public Health Service, adopted in 1946, permit fluorine to be present to the extent of 1.5 p.p.m. in water supplies used on inter-state carriers. This is an increase of 0.5 p.p.m. fluorine over the previous standard. This action presumably was taken following the changed public health view as to the beneficial action of small amounts of fluorine in combating dental caries.

In New Jersey, 95% of the population of 4,160,165 (1940 census) are served by 270 public water supplies. During the past two fiscal years, 449 examinations of these public water supplies have been made for the fluorine content. Ninety-two per cent of them had a fluorine content of 0.25 p.p.m. or less, while only 3-4% of the public supplies had sufficient fluorine in the range of 1-1½ p.p.m. accepted as being beneficial in the prevention of dental caries, yet not sufficiently high to be productive of dental fluorosis.

During the past year the drive against unscrupulous manufacturers of mayonnaise and salad dressings has been continued. Mineral oil has been substituted in these products for olive, cottonseed, corn and other edible oils. It has no food value, absorbs vitamin A from the intestines, and interferes with natural elimination. All brands on the market in New Jersey have been re-examined and few found to be adulterated.

The number of milk samples adulterated and below the legal limits decreased from 4.4% to 2.3% in the past year, and the greater number of the samples below standard were deficient in fat content, in that they did not comply with amounts stated on labels, even though above the legal limit of 3%. Comparatively few samples contained added water, showing the drive last year against this economic cheat was fruitful.

The five-cent candy nut or fruit bars are still concoctions many of which contain filth. During the previous fiscal year, microscopical examinations showed 21.3% of the samples examined contained filth, and in the past fiscal year the percentage had been reduced to 10.3%. Most of the manufacturers of these candies are out-of-state concerns, over which the New Jersey State Department of Health has no jurisdiction, and corrective measures at places of manufacture must be instituted either by the responsible state health officials or by the Federal Food and Drug Administration.

This Bureau is unable to replace scientific personnel at the prevailing salary scale. Lack of laboratory space and adequate compensation for technical employees are urgent problems.

There were 17,343 samples of food, drugs, water, sewage and miscellaneous preparations examined during the past year, a decrease of 2.7% of the number examined last year.

TABLES SHOWING NUMBER AND CHARACTER OF SAMPLES EXAMINED IN FOOD AND DRUG LABORATORY FROM JULY 1, 1946, TO JUNE 30, 1947

<i>Foods</i>	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>
Milk—chemical	3,823	91	3,914
Milk—bacteriological	14	..	14
Milk—phosphatase	551	101	652
Chocolate milk	78	7	85
Butter	145	2	147
Cream, sweet	225	4	229
Cream, sour	81	7	88
Ice cream	372	10	382
Cottage cheese	22	6	28
Chocolate drinks	10	..	10
Carbonated beverages	924	31	955
Fruit drinks	23	2	25
Fruit juice	11	..	11
Beverage syrups and flavors	91	3	94
Sherbert	2	5	7
Cranberry sauce	8	6	14
Honey	4	1	5
Ground beef	159	17	176
Sausage	90	19	109
Salad oil	19	6	25
Olive oil	7	2	9
Salad dressing and mayonnaise	129	5	134
Candies	129	14	143
Tomato products	102	31	133
Frozen foods	14	..	14
Frozen fruits	9	1	10
Miscellaneous samples	41	6	47
Total food samples	7,083	377	7,460
<i>Drugs</i>			
Lime waters	117	12	129
Tincture of iodine	46	1	47
Sulfathiazole gum	2	..	2
Alkali solution	39	40	79
Argyrol solution	54	7	61
Citrate of magnesia	58	..	58
Miscellaneous samples	14	..	14
Total drug samples	330	60	390
Urinalyses	42	..	42
Blood counts	21	..	21
Thermometers standardized	44	1	45
Total	7,520	438	7,958

DEPARTMENT OF HEALTH

SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY—JULY 1, 1946-JUNE 30, 1947

Months	Public Water Samples	Pay Samples	Miscellaneous Samples	Camp Samples	State and County Institution Samples	Dairy Samples	Bottled Water Samples	School Supplies	Bathing Waters and Swimming Pools	Stream Samples	Sewage Samples	Trade Waste	Surf Samples	Sand Samples	Experimental Samples	Total
1946																
July	445	104	143	78	17	3	8	1	17	28	70	1	150		30	1,065
August	424	108	135	24	24	2	1	2	16	135	49	83			8	1,053
September	315	77	97	24	11	5		129	2	4	157	26				1,831
October	262	97	108		17			24	1	13	310	19				883
November	183	92	69		7			35	1		27	14				435
December	147	109	69	1	11	1	4	48	1	47	45	8			7	498
1947																
January	344	72	118		23	4	4	34	2	16		9			14	640
February	274	59	44		9	1		38		6	8	7			177	620
March	170	142	81		11	6	1	31	1	6	57	2			211	724
April	204	76	80		21	2	6	17	1	13	65	42			9	545
May	387	12	103	6	12	7	1	160	6	20	264	9			11	997
June	735	8	102	30	6	1	15	28	14	40	129	1			6	1,118
Totals	3,890	956	1,178	139	169	32	39	547	62	330	1,181	221	150	3	488	9,385

Report of the Bureau of Engineering and Sanitation

For the Year Ending June 30, 1947

By H. P. CROFT, C. E., Chief

The lack of critical materials and manpower continued during the year and such shortages have again interfered with the construction of essential sewage treatment plants and extensive alterations and additions thereto, as well as large public water supply projects. Higher material costs also presented an obstacle to the completion of certain projects.

In the report for the Bureau of Engineering and Sanitation, covering the fiscal year 1945-1946, it was noted that of plans approved by the Department, 66% of water projects had been constructed, and 63% of sewerage projects were completed.

During this year 66% of all water projects approved have been constructed, with a value of \$267,000, while only 35% of the sewerage projects approved—having a combined value of \$696,500—were completed.

NUMBER OF WATER AND SEWERAGE PROJECTS EXAMINED AND APPROVED FROM
JULY 1, 1946 TO JUNE 30, 1947

Type of Projects	No. of Projects	No. of Plans	Engineers' Estimates of Costs
Water:			
Alterations, improvements and additions to waterworks	49	125	\$728,655.20
New systems and supplies	1	1	20,000.00
Sewage:			
Sewer extensions	64	154	1,249,703.42
Alterations and additions to sewerage systems, sewage and/or industrial waste treatment plants	24	119	1,744,033.00
New sewage and/or industrial waste treatment plants, systems and appurtenances..	29	290	6,488,279.70
Totals	167	689	\$10,230,671.32
Total of engineers' estimates of costs for the fiscal year ending June 30, 1937			\$6,357,788.33
Total of engineers' estimates of costs for the fiscal year ending June 30, 1946			\$1,155,839.61

MAN-HOURS IN FIELD ON: SEWAGE, INDUSTRIAL WASTES,
STREAM POLLUTION

As hereinafter referred to, the Department's activities in stream pollution control are governed by certain laws, rules and regulations and policies lodged within the State Department of Health for enforcement. There follows a summary of the man-hours spent by representatives of the Bureau in the enforcement of said activities:

<i>Drainage Basin</i>	<i>Sewage and Industrial Wastes Treatment Plants</i>	<i>Stream Surveys</i>	<i>Investigation of Complaints</i>	<i>Special: Factory Sites (a) Public Places (b) Bathing Waters (c)</i>	<i>Conferences: Interstate Sanitation Com. Potable Waters Municipal Bodies</i>	<i>Total Hours Entire Basins</i>	<i>Total Hours Potable Waters</i>
Delaware River	1,079	313	48	92 (b)	182	1,714	...
Raritan River and Bay..	909	135	98	48 (b)	122	1,312	...
Passaic River (above Great Falls at Paterson)	412	33	44	...	78	567	...
Hackensack River	284	17	60	...	55	416	...
Interstate Sanitation Com. (N. J. section)..	215	10	8	134 (c)	198	565	...
Atlantic coastal plain ...	972	95	32	24 (b)	84	1,207	...
Other rivers	236	46	90	12 (a) 40 (b)	600	1,024	...
Total hours each category	4,107	649	380	350	1,319	6,805	...
Hours on potable water- sheds	2,080	530	340	216	396	...	3,535

HOURS SPENT IN FIELD ON WATER SUPPLY SOURCES AND TREATMENT

<i>Public Water Supplies</i>	
Inspections, including water treatment plants	1,508
Inspections of potable watersheds	3,535
Investigations of complaints	325
Conferences	228
<i>Cross-connections</i>	
Inspections of installations	198
Conferences	50
<i>Certification of Water Supplies for Interstate Commerce</i>	
Inspections	144
Conferences	6
<i>Rural School Supplies</i>	
Inspections	169
Conferences	7
<i>Total hours</i>	6,170

SUMMARY OF MAN-HOURS

(1) In field on sewage, industrial wastes, stream pollutions (less potable watersheds)	3,270
(2) In field on water supplies and supply sources (including potable watersheds)	6,170
(3) Man-hours required in office on plans, reports, conferences, etc.	12,021
<i>Total man-hours</i>	21,461
(4) Total man-hours overtime, field and office	4,205
<i>Total man-hours expended</i>	25,666

RESOLUTIONS, NOTICES AND ORDERS

An important adjunct to the activities of the Bureau is the preparation of resolutions, notices, and other legal papers essential to the functioning of the Department with regard to the laws lodged in the Department for enforcement. There follows a summary of the various documents prepared in the Bureau during the year, together with the applicable statute or law under which said document issued:

Notices issued pursuant to the provisions of R. S. 58:10-1 et seq.	8
Notices issued pursuant to the provisions of R. S. 58:11-1 et seq.	5
Notices issued pursuant to the provisions of R. S. 58:11-12	8
Notices issued pursuant to the provisions of R. S. 58:12-1 et seq.	2
Notice issued pursuant to the provisions of P. L. 1942, c. 308	1
Notices issued pursuant to the provisions of R. S. 24:14-5 et seq.	10
Orders of necessity issued pursuant to the provisions of R. S. 40:1-16(g) and R. S. 58:12	5
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:10-17 et seq.	1
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 24:14-5 et seq.	1
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:11-14 et seq. and P. L. 1946, c. 295	3
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:12-1 et seq.	11
Resolutions requesting Attorney-General to institute contempt proceedings for failure to comply with commands of Chancery Court decrees	4
Resolution requesting Attorney-General to institute proceedings pursuant to the provisions of P. L. 1942, c. 308	1
Resolution requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:10-1 et seq.	1
Resolution requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:11-1 et seq.	4
Resolution requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:11-14 et seq.	2

Resolution rescinding terms of notices instituted pursuant to the provisions of P. L. 1939, c. 146	1
Resolution rescinding terms of notices instituted pursuant to the provisions of R. S. 58:10-1 et seq.	1
Resolutions rescinding permits relating to the construction and operation of water supplies and removing said supplies from Department's list of approved water supplies	2
Resolutions rescinding permits relating to the construction and operation of sewage and/or creamery wastes disposal plants	4
Resolutions transferring permits for the distribution of water from one supply to another supply	9
Resolution granting extension of time for a period of two years on approval of plans and specifications for sanitary sewer systems and sewer extensions	1
Resolution authorizing the issuance of permits for the construction and operation of sewer extensions	1
Resolutions granting permission for licensed operators to operate more than one public water treatment plant, public sewage treatment plant or public water supply system	4
Resolutions denying application to establish a factory	2
Resolutions rescinding and revoking permits issued to establish a factory	5
Resolutions denying applications for approval of plans and specifications for sanitary sewer systems	2
Resolution confirming action of the Director in requesting Attorney-General to take the necessary steps to secure compliance with the conditions of permits issued pursuant to the provisions of R. S. 58:11-1 et seq.	1
Resolution adopted rescinding permits of a water purveyor to distribute water for potable purposes and discontinuing the Department's supervision under the provisions of P. L. 1909, c. 253 and R. S. 58:11-1	1

SLAUGHTERHOUSES

At a meeting of the Department of Health of the State of New Jersey held on January 24, 1947, under authority contained in Title 24, Chapter 16, Revised Statutes of New Jersey, certain rules and regulations were adopted governing the construction and operation of slaughterhouses. Activities of the Bureau of Engineering and Sanitation are centered in the method or methods provided for wastes disposal, and, if located within a potable watershed, compliance with the provisions of R. S. 58:10-17 (An act requiring the issuance of a permit to establish above the point at which any public supply of potable water is taken). In complying with the rules and regulations adopted, technical employees of the Bureau devoted approximately 200 hours to investigations of slaughterhouses during the year.

THE EXAMINATION OF SURF SAMPLES IN RARITAN AND SANDY HOOK BAYS AND OCEAN WATERS ADJACENT TO THE NORTH JERSEY COAST RESORTS

During July 1946, bacteriological examinations were made of surf samples collected during both flooding and ebbing tides from bathing beaches in the Raritan and Sandy Hook Bays and the North Atlantic coast from Highlands to Beach Haven. Samples were collected from 74 bathing beaches. The results obtained in the examination of the samples collected are shown in the table following.

It is concluded, as of July 1946, that the sanitary conditions of the bay waters, with one exception, have improved since the preceding surveys before the war years. The ocean waters adjacent to the bathing beaches from Highlands to Beach Haven with three exceptions, have materially improved since the preceding surveys made prior to World War II. The improvements noted are unquestionably due to better operation of the 29 sewage treatment plants located along the stretch of the bays and ocean included in this survey. Effective chlorination was found being practiced at 25 of the 29 sewage treatment plants. Insufficient chlorinator capacities were responsible for the ineffective chlorination at three of the plants and improper facilities for chlorination were present at the fourth plant. Increased chlorine capacity has been installed during the year at three of the plants and an entirely new modern sewage treatment plant is to be installed at the fourth plant.

SHORE SAMPLES—LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JULY 10, 11, AND 17, 1946—(Continued)

Municipality	Location	Tide	Organisms of the Coliform Group	Coliform Group Index per c.c.
Avon	.....Opposite sewer outfall	.....Flooding	Pres. 3 in 5 c.c. Pres. 5 in 50 c.c.	0.6
Avon	.....Opposite sewer outfall	.....Ebbing	Pres. 2 in 5 c.c. Pres. 4 in 50 c.c.	0.4
Belmar	.....Opposite Second Ave.	.....Flooding	Abs. in 5 c.c.	0.08
Belmar	.....Opposite Second Ave.	.....Ebbing	Pres. 4 in 50 c.c. Pres. 3 in 5 c.c.	0.6
Belmar	.....Opposite Fifth Ave.	.....Flooding	Pres. 5 in 50 c.c. Pres. 40 in 1 c.c.	40
Belmar	.....Opposite Fifth Ave.	.....Ebbing	Pres. 5 in 50 c.c. Pres. 1 in 5 c.c.	0.2
Belmar	.....South of outfall	.....Flooding	Pres. 40 in 1 c.c.	40
Belmar	.....South of outfall	.....Ebbing	Abs. in 5 c.c.	0.1
Belmar	.....Opposite 16th Ave.	.....Flooding	Pres. 5 in 50 c.c.	1
Belmar	.....Opposite 16th Ave.	.....Ebbing	Pres. 5 in 50 c.c. Pres. 2 in 1 c.c.	2
Spring Lake	.....Opposite Ludlow Ave.	.....Flooding	Pres. 5 in 5 c.c.	1
Spring Lake	.....Opposite Ludlow Ave.	.....Ebbing	Pres. 1 in 5 c.c.	0.2
Spring Lake	.....Opposite Morris Ave.	.....Flooding	Pres. 1 in 5 c.c.	0.2
Spring Lake	.....Opposite Morris Ave.	.....Ebbing	Pres. 3 in 50 c.c.	0.2
Spring Lake	.....South of pavilion	.....Flooding	Pres. 4 in 5 c.c.	0.2
Spring Lake	.....South of pavilion	.....Ebbing	Pres. 1 in 50 c.c.	0.1
Spring Lake	.....Opposite Penn Ave.	.....Flooding	Pres. 5 in 50 c.c.	0.02
Spring Lake	.....Opposite Penn Ave.	.....Ebbing	Pres. 1 in 50 c.c. Abs. in 5 c.c.	0.1

Sea Girt	.....Opposite Beacon Ave.	.....Flooding	Abs. in 5 c.c.	0.06
Sea Girt	.....Opposite Beacon Ave.	.....Ebbing	Pres. 3 in 50 c.c. Pres. 1 in 5 c.c.	0.2
Sea Girt	.....Opposite Stockton Ave.	.....Flooding	Pres. 2 in 50 c.c.	0.4
Sea Girt	.....Opposite Stockton Ave.	.....Ebbing	Pres. 2 in 5 c.c. Abs. in 50 c.c.	0.04
Manasquan	.....Opposite Main St.	.....Flooding	Pres. 2 in 50 c.c.	0.06
Manasquan	.....Opposite Main St.	.....Ebbing	Abs. in 5 c.c.	0.1
Manasquan	.....100 yards north of Inlet	.....Flooding	Pres. 5 in 50 c.c.	0.08
Manasquan	.....100 yards north of Inlet	.....Ebbing	Pres. 4 in 50 c.c.	0.04
Point Pleasant	.....Opposite Water St.	.....Flooding	Pres. 2 in 50 c.c.	0.2
Point Pleasant	.....Opposite Water St.	.....Ebbing	Pres. 1 in 5 c.c. Abs. in 50 c.c.	0.02
Point Pleasant	.....Opposite Central Ave.	.....Flooding	Pres. 1 in 50 c.c.	0.04
Point Pleasant	.....Opposite Central Ave.	.....Ebbing	Abs. in 50 c.c.	<0.02
Point Pleasant	.....Opposite Atlantic Ave.	.....Flooding	Pres. 2 in 5 c.c. Pres. 4 in 50 c.c.	0.4
Point Pleasant	.....Opposite Atlantic Ave.	.....Ebbing	Pres. 2 in 55 c.c.	0.04
Bay Head	.....Opposite Beacon Hotel	.....Flooding	Pres. 1 in 5 c.c.	0.2
Bay Head	.....Opposite Beacon Hotel	.....Ebbing	Pres. 4 in 50 c.c. Abs. in 5 c.c.	0.06
Bay Head	.....Opposite Osborne Ave.	.....Flooding	Pres. 3 in 50 c.c.	0.2
Bay Head	.....Opposite Osborne Ave.	.....Ebbing	Pres. 2 in 50 c.c. Abs. in 5 c.c.	0.06
Bay Head	.....200 feet south of Bridge Ave.	.....Flooding	Pres. 3 in 50 c.c.	0.04
Bay Head	.....200 feet south of Bridge Ave.	.....Ebbing	Pres. 2 in 50 c.c. Abs. in 5 c.c.	<0.02

SURF SAMPLES—LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JULY 10, 11, AND 17, 1946—(Continued)

Municipality	Location	Tide	Organisms of the Coliform Group	Coliform Group Index per c.c.
Mantoloking	Opposite Williams Place	Flooding	Abs. in 5 c.c.	0.04
Mantoloking	Opposite Williams Place	Ebbing	Pres. 2 in 50 c.c.	0.04
Mantoloking	Opposite Lyman Place	Flooding	Abs. in 5 c.c.	0.2
Mantoloking	Opposite Lyman Place	Ebbing	Pres. 2 in 50 c.c.	<0.02
Lavallette	Opposite President Ave.	Flooding	Abs. in 5 c.c.	<0.02
Lavallette	Opposite President Ave.	Ebbing	Abs. in 50 c.c.	<0.02
Seaside Heights	Opposite Kearney Ave.	Flooding	Abs. in 50 c.c.	0.04
Seaside Heights	Opposite Kearney Ave.	Ebbing	Pres. 2 in 50 c.c.	<0.02
Seaside Heights	Opposite old casino	Flooding	Abs. in 50 c.c.	0.02
Seaside Heights	Opposite old casino	Ebbing	Pres. 1 in 50 c.c.	0.2
Seaside Park	Opposite Decatur Ave.	Flooding	Pres. 5 in 50 c.c.	1
Seaside Park	Opposite Decatur Ave.	Ebbing	Pres. 5 in 50 c.c.	<0.02
Seaside Park	Below cottage group	Flooding	Abs. in 50 c.c.	0.04
Seaside Park	Below cottage group	Ebbing	Pres. 1 in 50 c.c.	<0.02
Barnegat City	Opposite 8th St.	Flooding	Abs. in 50 c.c.	<0.02
Barnegat City	Opposite 8th St.	Ebbing	Abs. in 50 c.c.	<0.02
Harvey Cedars	Opposite 78th St.	Flooding	Abs. in 50 c.c.	<0.02

Harvey Cedars	Opposite 78th St.	Ebbing	Abs. in 5 c.c.	<0.02
Surf City	Opposite 14th St.	Flooding	Abs. in 50 c.c.	<0.02
Surf City	Opposite 14th St.	Ebbing	Abs. in 50 c.c.	<0.02
Ship Bottom	Opposite 20th St.	Flooding	Abs. in 50 c.c.	<0.02
Ship Bottom	Opposite 20th St.	Ebbing	Abs. in 50 c.c.	<0.02
Brant Beach	Opposite 38th St.	Flooding	Pres. 1 in 50 c.c.	0.02
Brant Beach	Opposite Hobart Ave.	Flooding	Abs. in 50 c.c.	<0.02
Beach Haven Crest	Opposite Hobart Ave.	Ebbing	Abs. in 50 c.c.	<0.02
Beach Haven Park	Opposite Kansas Ave.	Flooding	Abs. in 50 c.c.	<0.02
Beach Haven Park	Opposite Kansas Ave.	Ebbing	Abs. in 50 c.c.	<0.02
Beach Haven Terrace	Opposite Maryland Ave.	Flooding	Abs. in 50 c.c.	0.04
Beach Haven Terrace	Opposite Maryland Ave.	Ebbing	Pres. 2 in 50 c.c.	0.04
Spray Beach	Opposite 23rd St.	Flooding	Abs. in 50 c.c.	0.02
Spray Beach	Opposite 23rd St.	Ebbing	Pres. 1 in 50 c.c.	0.04
North Beach Haven	Opposite 11th St.	Flooding	Abs. in 50 c.c.	0.04
North Beach Haven	Opposite 11th St.	Ebbing	Pres. 2 in 50 c.c.	0.04
Beach Haven	Opposite Center St.	Flooding	Abs. in 50 c.c.	0.02
Beach Haven	Opposite Center St.	Ebbing	Pres. 2 in 50 c.c.	0.04

SUMMER WATER SUPPLIES

There are 32 water supplies principally located in the vacation lake sections of North Jersey used from three to five months a year, in the various seasons and known as summer water supplies.

Twenty-four of the supplies are derived from driven wells, two from combined well and surface, four from springs and two from surface.

Eighteen of the supplies are treated by chlorination.

Thirty of the supplies met the standards of the Department for safe potable water supplies. The Department is proceeding to secure the delivery of a safe potable water from the two supplies not conforming with the potable water standards.

LICENSING ACT

R. S. 58:11-14 through 58:11-18 and P. L. 1946, c. 295, provide for the examination and licensing, under the direction of the State Department of Health of the State of New Jersey, of superintendents or operators of public water treatment plants, public sewage treatment plants and public water supply systems. In accordance with the provisions of the legislation referred to, a Board of Examiners is appointed annually to supervise the examining of applicants for licenses.

The following tabulation contains information upon the number of individuals in New Jersey licensed in conformity with R. S. 58:11-18.10, as of June 30, 1947:

(1) Number of licensed sewage treatment plant operators (all grades)	348
(2) Number of licensed water treatment plant operators (all grades)	357
(3) Number of licensed water supply system operators (all grades)	390
(4) Total fees received for fiscal year	\$4,050

CROSS-CONNECTIONS

The report upon the Bureau's activities during the fiscal year ending June 30, 1946 included a complete list of active cross-connection permits. Fourteen permits expired and were not renewed during this fiscal year, the cross-connections having been eliminated. The permits thus discontinued are as follows:

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Bogota	Continental Paper Company	130
Camden	Armstrong Cork Company	10
Camden	A. Schlorer & Sons	194
Garfield	Samuel Hird & Sons, Inc.	31
Hackensack	Harper Terminal, Inc.	131
Hillside Township	International Milk Company, Inc.	166
Hillside Township	Sunrise Dairies	161
Linden	Simmons Company	59
Paterson	Berles Carton Company, Inc.	103
Paterson	Dunlop Mill No. 1 Properties, Inc.	83
Paterson	Eastwood Realty Company	85
Riegelsville	Riegel Paper Corporation (Hughesville)	101
Trenton	Fisher Body Ternstedt Division	151
Union Township	Ideal Dairy Farms	164

New permits added to the active list during this fiscal year are as follows:

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Belleville	The Liquid Carbonic Corporation	200
Camden	A. Schlorer & Sons	194
Clifton	Bright Star Warehouse	195
Edgewater Park Township	Wall Rope Works, Inc.	192
Garfield	Heyden Chemical Corporation	190
Morristown	The Morey-LaRue Laundry Company	196
Morristown	N. J. Frozen Food Lockers, Inc.	198
Morristown	Edna E. Queneau	199
New Brunswick	Krausz's Dairy	193
Rahway	Quinn & Boden Company, Inc.	191
Sewaren	Shell Oil Company, Inc.	197
Trenton	Paneley Division of St. Regis Paper Company	112A

There were two outstanding developments in the matter of cross-connections during this fiscal year. The Hackensack Water Company completed its drive in the elimination of cross-connections on its water supply system. There were formerly 12 cross-connection permits in force for connections to that company's system. All have been eliminated. The year also marks the program of the Elizabethtown Water Company, Consolidated, to eliminate cross-connections. That company established the policy of denying approval of cross-connection applications effective April 1, 1947. It is anticipated that all connections listed on that system will be eliminated in the near future.

FEDERAL LEGISLATION

Abatement of Stream Pollution

Proposed Federal legislation for the control of stream pollution, as contained in Senate Bill 418 (A Bill to provide for water-pollution-control activities in the United States Public Health Service, and for other purposes), introduced jointly by Senator Barkley and Senator Taft, was considered by the Department at a meeting held on May 13, 1947, and, it was on motion voted that the following statement be approved and copies of the same be sent to interested parties:

"A STATEMENT BY THE NEW JERSEY STATE DEPARTMENT OF HEALTH RELATING TO SENATE BILL NO. 418 INTRODUCED JOINTLY BY SENATOR BARKLEY AND SENATOR TAFT.

"The bill has been referred to the Public Works Committee of the United States Senate. Hearings are being held by a subcommittee of which Senator George W. Malone of Nevada is Chairman. Mr. Ronald F. Moist is counsel to the committee.

"The New Jersey State Department of Health approves the bill in so far as it would provide for investigation of stream pollution by the Surgeon General and by the Public Health Service in cooperation with State and interstate health authorities and agencies and with municipalities and industries and for the preparation of programs for eliminating or reducing pollution and improving the sanitary condition of surface and underground waters.

"The Department respectfully opposes Section 2 (d) of the bill which would authorize the Surgeon General after notice to the State health authority or interstate agency to bring actions in the name of the United States in the United States courts to abate pollution, which in the opinion of the Surgeon General jeopardizes the health or welfare of citizens of the United States on the ground that stream pollution abatement is properly a State activity outside the domain of the Federal Government.

"Stream pollution is of local concern. It can be abated by State and interstate action. The bad effects of stream pollution are local and the responsibility for controlling it rests upon the localities concerned. In this respect, it is like police and fire protection.

"Stream pollution is so widespread and abatement methods are so technical and experimental that it would be impossible for the Surgeon General to function effectively on a country wide basis from his Washington office. All of the deficiencies of overly centralized control would be invited.

"The enforcement of stream pollution laws oftentimes necessitates a balancing of advantages and disadvantages requiring discretion which can be exercised best by local authorities. Sometimes a decision must be made whether to force the closing of an industrial plant or, the suspension of its operations through enforcement or to suffer some degree of pollution, great or small, for some period of time while remedial measures are progressing. Sometimes a choice must be made whether to embarrass a municipality financially or to advance gradually toward a solution. Such measuring of relative advantages and disadvantages can best be done by a State or interstate authority which is more closely associated with the local conditions.

"The New Jersey State Department of Health opposes the passage of S. 418 primarily because it would authorize an unwarranted intrusion by the Federal Government into what is properly a State or interstate activity.

"If, however, notwithstanding this view, the Committee votes to report the bill favorably, attention is directed to the definition of interstate waters which appears to be ambiguous. The definition, which appears on page 12, line 1, reads:

"All rivers, lakes, and other waters, and their tributaries, that flow across or form a part of, State or international boundaries."

"The definition could be construed so as to include streams which are generally regarded as intrastate streams. If the definition comprehends tributaries of all waters which flow across or form a part of State boundaries, it is all inclusive, because all rivers eventually flow into an ocean or an arm of an ocean which is itself a State boundary or a part of a State boundary. If it excludes tributaries which do not flow across or form a part of State boundaries, many tributaries would be unaffected. Streams draining an area lying entirely within the boundary of a State would be excluded under this construction.

"Sec. 2 (d) of the bill authorizes the Surgeon General to act to procure the abatement of the pollution of interstate waters in or adjacent to any State or States. It is assumed that the word 'interstate' is used in its ordinary meaning of streams that flow across or form a part of boundaries not including tributaries which flow entirely within the boundaries of a State.

"In order to accomplish the objective of the bill with absolute lucidity, in case it is reported, it is suggested that the definition interstate waters be amended to read:

"The term 'interstate waters' means all rivers, lakes, and other waters, and their tributaries, that flow across or form a part of, State or international boundaries; not including tributaries which flow entirely within the boundaries of a State;"

and by inserting a definition of 'intrastate waters' to read:

"The term 'intrastate waters' means all rivers, and other waters, or any tributary thereof, which drain or drains an area lying within the boundary of a State."

"There may be some justification for Federal intervention in an interstate area where one or more of the States involved refuses to cooperate with the others through an interstate compact to prosecute stream pollution abatement undertakings. If the bill is reported favorably, it should be limited to such interstate areas. This could be accomplished by the following amendment to Section 2 (d) which would exclude from the operation of the bill intrastate streams, as commonly understood, and interstate streams where one or more of the States comprising the drainage area is or are cooperative:

"This sub-section (d) shall not apply to intrastate waters or to interstate waters which drain an area lying in two or more States where the State within which is the area drained by such intrastate waters or the States within the borders of which is the area drained by such interstate waters has or have, singly or jointly, adopted a law or laws presently in effect for abating the pollution of such intrastate waters or of such interstate waters, as the case may be, and has or have established an authority or agency empowered to execute such law or laws."

"The New Jersey State Department of Health opposes the passage of S. 418 or, if the bill is reported, strongly urges the definite exclusion of intrastate waters and interstate waters which are the subject of interstate pollution abatement projects because the control of stream pollution has made progress satisfactorily in the State of New Jersey for many years and as rapidly as circumstances permitted. It should be noted that the construction of sewage and industrial waste treatment plants was interrupted or delayed by the depression of the 1930's and again by World War II. Such projects are now being revived under adequate State and interstate laws effectively administered by State and interstate and local authorities and agencies. Progress is slow because of the shortage of sewer pipe and other essential material and equipment, but it will gather momentum as this situation improves. The pollution of New York Harbor and adjacent interstate waters is being energetically attacked by the Interstate Sanitation Commission, a tri-State agency of the States of New York, Connecticut and New Jersey. Likewise, control of pollution in the Delaware River is being promoted by the Interstate Commission on the Delaware River, known as 'Incodel,' an interstate commission representing the States of New York, Pennsylvania, New Jersey and Delaware. Intrastate stream pollution abatement projects are well advanced in New Jersey.

"It is respectfully submitted that the Federal Government could not do any better and probably, because of the deficiencies naturally inherent in centralized authority, would not do as well. Conceivably, Federal intervention might be detrimental because if the Federal Government were to assume this authority, State, interstate and local authorities and agencies might discontinue or relax their efforts and leave the task to the Federal Government. Such an eventuality would be disastrous.

"For these reasons, the New Jersey State Department of Health respectfully urges the Public Works Committee of the United States Senate to disapprove Senate bill 418 or, in the alternative, to amend it so that intrastate streams would be definitely excluded from its operation and so that interstate waters which drain an area lying in two or more States which are prosecuting stream pollution abatement projects by interstate compact be eliminated."

INDUSTRIAL WASTES TREATMENT

The Bureau's activities in regard to industrial wastes pollution elimination, temporarily curtailed during the war years have, within the past year, become intensified.

At one plant, after a number of years of intensive study of waste disposal problems, including research, experimentation and operation of various disposal methods, it was finally decided on barging to sea. A barge, 265 feet in length, 43 feet in breadth, and a draft of 13 feet 8 inches, equivalent to a displacement of 3,925 tons and equipped with eight rubber-lined rectangular tanks has been constructed and launched in one of the larger shipyards in New Jersey. Wastes to be barged to sea, after separation of cooling and condenser waters, amount to nearly one million gallons a day. Storage facilities on shore will care for an accumulation of 4½ days' wastes. The wastes will be discharged in a two-mile square area over the old Hudson River Gorge, a deep rocky channel through the ocean bottom and through which the Hudson River once flowed to the edge of what is now the con-

tinental shelf. The area of discharge is approximately 14 miles south and east of Scotland Lightship, 10 miles from the New Jersey coast. It is estimated that the turbulence of the water in the wake of the moving barge will so agitate and mix the wastes with sea water that a dilution of one part of acid to 30,000 parts of sea water will take place immediately. The volume of wastes, amounting to nearly one million gallons a day, will contain 8.5% of sulphuric acid and 10.9% of ferrous sulphate. It is expected that the barging of the wastes to sea will start in the early Fall.

At a second industrial plant, discharging approximately three million gallons per day of wastes having a high biochemical oxygen demand, excessive turbidity and pronounced color, several years were spent in research for a satisfactory method of treatment for black liquors obtained from cooking flax and hemp, but without success. Finally, within the past year, spray drying and incineration were installed. It is planned that not only will the drained black liquors from a "cook" be spray dried and incinerated, but the digested fibre will be put through screw presses which will remove almost an equal volume of black liquor as that obtained by draining. The capacity of the spray drier and incinerator is such that 24 hours' operation will care for all of the black liquors produced by one week's operation of the industrial plant. The incinerated material will be extracted with water and certain chemicals contained therein recovered.

A third industry has a treatment plant about 96% complete. The treatment plant is for both sanitary sewage and industrial wastes, 0.42 million gallons a day and 8.5 million gallons a day, respectively. Industrial wastes consist of wash waters and processing wastes from packaging of frozen food. The industrial wastes treatment plant consists of mechanical vibrating fine screens, prechlorination, preaeration and chemical mixing and flocculation, with the industrial wastes effluent combining with the sanitary wastes for further treatment.

INTERSTATE SANITATION COMMISSION

R. S., Title 32, Chapter 18, State of New Jersey, is "An Act authorizing designated authorities in behalf of the State of New Jersey to enter into an agreement or compact with designated authorities of the State of New York for the creation of the Interstate Sanitation District, the establishment of the Interstate Sanitation Commission, the control of future pollution and the abatement of existing pollution in the tidal and coastal waters of the adjacent portions of the signatory States and the defining of the powers and duties of such commission." R. S. 32:18-8 regulates the discharge of sewage or

other polluting matter into tidal waters within the district, with regard to Class "B" waters:

"(2) All sewage discharged or permitted to flow into class 'B' waters of the district shall first have been so treated as—

"a. to remove all floating solids and at least ten per cent (10%) of the suspended solids, or such additional percentage as may by reason of local conditions be necessary to avoid the formation of sludge deposits in the class 'B' waters of the district; and

"b. to effect a reduction in the oxygen demand of the sewage effluent sufficient to maintain an average dissolved oxygen content in the tidal waters of the district and in the general vicinity of the point of discharge of the sewage into those waters, at a depth of about five feet below the surface, of not less than thirty per cent (30%) saturation during any week of the year."

R. S. 32:18-2 pledges cooperation in the control of future pollution within the waters of the district, to wit:

"32:18-2. Cooperation pledged; purposes to be accomplished.

ARTICLE I

"1. Each of the signatory States pledges each to the other faithful cooperation in the control of future pollution and agrees to provide for the abatement of the existing pollution in the tidal and coastal waters in the adjacent portions of the signatory States defined herein as coming within the district, and consistent with such object, to enact adequate legislation which will enable each of the signatory States to put and maintain the waters thereof in a satisfactory sanitary condition and particularly to protect public health; to render safe such waters as are now used or may later become available for bathing and recreational purposes; to abate and eliminate such pollution as becomes obnoxious or causes a nuisance; to permit the maintenance of major fish life, shellfish and marine life in waters now available or that may by practicable means be made available for the development of such fish, shellfish or marine life; to prevent oil, grease or solids from being carried on the surface of the water; to prevent the formation of sludge deposits along the shores or in the waterways; and with the fulfillment of these objectives to abate and avoid incurring unnecessary economic loss by safeguarding the rights of the public in its varied legitimate uses of the waters of the district."

In the opinion of the Bureau, fine screening alone would accomplish the necessary reductions in sewage treatment plant effluents discharging to Class "B" waters to conform with interstate requirements. However, the Department, at a meeting held on November 1, 1927, adopted a general policy as to the minimum degree of treatment of sewage, to wit: "That the Department would not approve thereafter fine screening as a method of treatment." In other words, the Department would require that all sewage, prior to its discharge into any waters of the State, excluding the waters within the Passaic Valley Sewerage District, shall be subjected, as a minimum, to a degree of treatment consisting of effective sedimentation.

In an attempt to clarify the jurisdiction of the Department, this matter was referred to the Interstate Sanitation Commission on April 29, 1946, with the request that a definite basis be established relative to the method of fine screening or sedimentation. Subsequently, the Interstate Sanitation Commission, at a meeting held May 1, 1946 adopted the following motion in this matter:

"On motion duly made, seconded and passed unanimously, it was directed that a letter be written to the New Jersey State Department of Health stating that it would appear highly desirable if the agencies concerned with pollution abatement in the three interested States maintain their present unanimity of opinion to provide a minimum treatment of effective sedimentation before discharging into Class 'B' water areas of the Interstate Sanitation District.

"On motion duly made, seconded and passed unanimously, it was directed that a letter be addressed to the agencies concerned with pollution abatement in each of the three interested States, requesting that a notice be afforded this Commission before any agency undertakes to lower the present standard of a minimum of effective sedimentation before discharge into any of the waters of the Interstate Sanitation District."

During the fiscal year, and in furtherance of this matter, the Interstate Sanitation Commission adopted the following resolution on August 1, 1946:

"On motion duly made, seconded and passed unanimously, the following resolution was adopted:

RESOLUTION

"This Commission is in accord with the established practice of the Departments of Health of New York, New Jersey and Connecticut and of the Connecticut State Water Commission to the effect that the minimum degree of treatment for effluents flowing into the waters of the Interstate Sanitation District be effective sedimentation throughout the District, and in view of the provisions of Sections 32:18-10 and 32:18-13 of the Revised Statutes of New Jersey, it is respectfully recommended that the New Jersey State Department of Health adhere to and require the aforementioned minimum degree of treatment of all sewage discharging into Class 'B' water areas of the Interstate Sanitation District."

STATISTICS ON SEWAGE COLLECTION AND TREATMENT, AND INDUSTRIAL WASTES TREATMENT IN NEW JERSEY

The Bureau, in its enforcement of certain laws, rules and regulations and policies vested in the State Department of Health for the control of stream pollution within the State, is obligated to perform the following functions, to wit: investigate the operation of sewage and industrial wastes treatment plants and report upon the efficacy of facilities provided; make special and detailed investigations of the degree and extent of the pollution of rivers and other waters of the State (excluding area under the jurisdiction of the Passaic Valley Sewerage District); to inspect sewage treatment plants and outfalls

discharging effluents into the Atlantic coastal waters, and collect surf samples to determine the bacteriological quality of said waters as a safeguard to the health of persons using these waters for recreational purposes; to investigate the various methods of sewage treatment in order that it may be able to make proper recommendations in regard thereto; make routine stream sampling surveys; investigate complaints regarding pollution of streams, etc.

There follows a summary containing data upon the status of sewage collection and treatment, and industrial wastes treatment in New Jersey:

A. The following data are based upon the census of 1940:

1. Population of New Jersey	4,160,163
2. Population provided with a sewer system	3,611,876
3. Per cent of total population provided with a sewer system	86.8
4. Population not provided with a sewer system	548,267
5. Per cent of total population not provided with a sewer system	13.2
6. Population provided with sewage treatment plants (primary, secondary or complete treatment)	2,729,987
7. Per cent of sewered population provided with sewage treatment plants	75.5

B. *Municipalities Under the Jurisdiction of the State Department of Health*

1. Number of municipalities having a sewer system	203
2. Population of the 203 municipalities	1,508,863
3. Population provided with sewage treatment plants (primary, secondary or complete) (B)	1,328,699
4. Per cent of sewered population provided with sewage treatment plants	87.8
5. Population discharging untreated sewage (A)	180,164
6. Per cent of population (A), under orders to install sewage treatment works	75.1
7. Population (B) under orders to intensify their method of sewage treatment	166,406

C. *Municipalities in the Territory of the Passaic Valley Sewerage District*

1. Number of municipalities having a sewer system	29
2. Population of the 29 municipalities	1,058,747
3. Per cent of sewered population provided with sewage treatment plants	100

D. *Municipalities in the Territory of the Interstate Sanitation District*

1. Number of municipalities having a sewer system	33
2. Population of the 33 municipalities	1,044,266
3. Population provided with sewage treatment plants (primary, secondary or complete)	342,541
4. Per cent of sewered population provided with sewage treatment plants	32.8
5. Population discharging untreated sewage (A)	701,725
6. Per cent of population (A) under orders to install sewage treatment works	41.0

Industrial Wastes Discharged Into the Waters of the State of New Jersey

E. The following data are estimates. It is believed, however, that the accuracy of the overall estimates is within 10% of actual conditions (volumes of wastes in million gallons per day).

1. Total volume of wastes discharged	283
2. Volume of wastes treated (partially (A) or completely)	138
3. Volume of wastes under orders to treat untreated wastes, or, to intensify treatment (A), or hearings being held	145

F. *Industrial Wastes Under the Jurisdiction of the State Department of Health*

1. Total volume of wastes discharged	187
2. Volume of wastes treated (partially (A) or completely)	94
3. Volume of wastes under orders to treat untreated wastes, or, to intensify treatment (A)	93

G. *Industrial Wastes in the Territory of the Passaic Valley Sewerage District*

1. Total volume of wastes discharged	40
2. Volume of wastes treated (partially or completely)	40

H. *Industrial Wastes in the Territory of the Interstate Sanitation District*

1. Total volume of wastes discharged	56
2. Volume of wastes treated (partially or completely)	4
3. Volume of wastes under orders to treat, or, hearings being held	52

ACTIVITIES LIMITED—PERSONNEL

This fiscal year has marked the development of a critical personnel problem in the Bureau. It had been hoped that the end of World War II would result in the return of the engineers who had left the Bureau and gone into military service. Six men from the technical staff were engaged in the military service. Only one of those men was on the payroll of the Bureau at the end of this fiscal year. There were two other engineers employed in the Bureau at the outset of the war who left the Bureau and went into war industry with the expressed intent, at the time of leaving, of returning to the Bureau. They have not returned. Two other experienced engineers have left the Bureau. Replacement of the aforesaid men with qualified engineers has been found to be impossible. Qualified engineers, whose temporary appointment has been approved and certified by the Civil Service Commission, have refused to fill the vacancies having obtained more remunerative employment in the same lines of work elsewhere. The consequence is that at the end of this fiscal year, there are eight vacancies in the Bureau for sanitary engineers. The critical shortage of experienced engineering personnel has made it necessary for the Bureau to restrict its activities. Emphasis has been placed

upon the various phases of public water supply protection. The schedule of work in the examination of engineering data for sewage projects has lagged. Routine inspections of sewage and industrial wastes treatment plants have been suspended. Very few investigations of the operation of sewage and industrial wastes treatment plants have been made. The schedule of sampling at regular intervals of the various streams of the State at key points maintained prior to World War II has been suspended. The sampling of the surf waters along the New Jersey ocean front beaches has been suspended for the Summer of 1947. The policing of the operation of sewage treatment plants in the Raritan Valley, which became necessary in order to enforce the Department's policy adopted in 1941 with reference to the operation of the said plants, has been all but suspended. The impetus given to the Delaware Valley pollution control project by the Chancery Court decrees issued against the cities of Gloucester and Camden on August 13, 1943 and October 17, 1944, respectively, is threatened by the lack of personnel to carry on the necessary investigations before legal prosecution may be initiated. The Bureau has not functioned, in so far as inspections are concerned, pursuant to P. L. 1946, c. 172—the Swimming Pool Law. As previously indicated the Bureau has concentrated its efforts in matters relating to the protection of public potable water supplies. In spite of this, however, one-third of the public potable water supplies of this State were not inspected in this fiscal year.

Report of Bureau of Food and Drugs

For the Year Ending June 30, 1947

By WALTER W. SCOFIELD, *Chief*

The Bureau of Food and Drugs enforces laws passed by the Legislature to prevent the adulteration and misbranding of foods, drugs, devices and cosmetics, and also those laws and regulations passed to prevent the handling, preparation, storage and transportation of foods or drugs under unclean conditions.

Shortages of several of the staple foods and ingredients used in the preparation of food products continued during the entire fiscal year. Such essential products as meats, edible oils, dairy products and sugar, have not been available in quantities sufficient to meet the demands of the people of this State. Consequently, there has been a temptation to substitute inferior or worthless substances for the genuine articles.

The shortage of adequate and competent personnel to manufacture, prepare and serve foods under clean conditions has also continued throughout most of the year. The conditions in public eating places have not been maintained at as high a standard of cleanliness as in former years because of the shortage of labor. However, it appears that there has been no appreciable increase in the number of cases of illnesses caused by contaminated or adulterated food.

The work of the Bureau has been curtailed during the year because of the shortage of funds appropriated to defray the cost of equipment and the ever-increasing cost of travel to establishments where foods and/or drugs are prepared, packed, stored or otherwise handled and also the increased costs of samples of foods, drugs and cosmetics.

The Bureau has been unable to employ a competent pharmacologist to conduct investigations of establishments at which drugs are manufactured because of the inability of the Bureau to offer a salary which would attract a person who had received proper instruction in the higher branches of chemistry, bacteriology and toxicology to perform this difficult work intelligently. Drug manufacturing firms are locating their manufacturing plants

in this State in ever-increasing numbers because of the availability of land which is suitable for the erection and operation of drug manufacturing plants at points which would not create nuisances. There are large areas in North Jersey which are particularly suited to such operations and which are desirable because of the proximity to the Port of New York.

In several instances, large drug manufacturing firms located in New Jersey have expanded sales of drugs to countries in Central and South America. In certain cases, these firms have found that it is necessary for them to secure certificates of approval from some governmental agency which would certify to the satisfactory conditions of manufacture of the product before the drugs could be exported to the different countries. The Federal Food and Drug Administration, which agency does have a close control over the manufacture of drugs in this country, has not been authorized by Congress to issue certificates of approval. Consequently, the firms have appealed to this Department to issue certificates to cover the demands of the purchasers in foreign countries. While the Bureau has not been provided with personnel trained in drug control to carry out such complicated investigations as may be necessary to arrive at satisfactory conclusions of the purity and standardization of drugs in all cases, agents of the Bureau who have been normally assigned to other lines of work have performed this service to the best of their ability. Certificates have been issued only after thorough inspections have been made of drug manufacturing plants and processes.

ENFORCEMENT OF THE FLOUR AND BREAD ENRICHMENT ACT

The Flour and Bread Enrichment Act became effective on July 1, 1946. This act prescribes minimum standards of vitamin and mineral content for white flour, white bread and rolls and provides for the enrichment thereof by the addition of certain vitamins and other ingredients, in addition to exempting certain flour to be resold or used in products other than white bread or rolls. This act empowered the New Jersey State Board of Health to adopt standards governing the preparation or sale of white flour, white bread and rolls in New Jersey.

On September 10, 1946, the State Board of Health adopted certain regulations governing the purchase and sale of enriched white flour and unenriched white flour and the marking of containers of enriched and unenriched white flour intended for use in New Jersey, the regulations becoming effective immediately.

The inspectors of the Bureau of Food and Drugs made surveys of the markings on containers of flour as found in wholesale flour storage warehouses and in bakeries. Our agents also examined the certificates of purchase which were required to be filed at the bakery and with the distributor

in those cases in which unenriched flour was purchased to ascertain the use which was to be made of the unenriched flour. Where our representatives found unenriched flour being used in white bread or rolls, they inspected the vitamin and mineral ingredients that were to be added in the preparation of white bread and rolls. Where the requirements of the law and regulations were not carried out in full, letters were forwarded to the persons in charge of the establishments pointing out the violations of the law and/or the regulations. The work of inspection continued throughout the year and it is our opinion that compliance with the requirements of the law and of the regulations was very general at the close of the year. It was gratifying to receive hearty cooperation from flour millers, flour distributors and bakers in this work.

SANITATION OF BAKERIES AND PUBLIC EATING ESTABLISHMENTS

The agents of the Bureau of Food and Drugs make sanitary inspections of all bakeries in the State and also of public eating places located in cities, boroughs and villages.

During the year, 1,974 inspections have been made of bakeries and 1,592 inspections have been made of public eating establishments. The Bureau has forwarded letters of advice and/or warnings in those cases in which violations of the laws were reported. Reinspections have been made where notices have been sent. In those cases in which little or no improvement was found upon reinspection, the proprietors have been given opportunities to appear to show cause why legal action should not be taken against them for violations of the laws. In certain cases where repeated violations occurred, prosecutions were ordered.

DAIRY FARM AND MILK PLANT INSPECTION

Chapter 10, Title 24 of the Revised Statutes of New Jersey, provides that a permit is to be obtained from the State Department of Health for each milk plant at which milk is received from one or more dairy farms for distribution as fluid milk or cream in New Jersey. The law fixes detailed specifications and requirements covering the conduct of dairy farms and the methods which are to be used in the handling of milk, cream and milk products on dairy farms and in milk plants. Before permits are to be issued, the Department is to be satisfied as a result of inspections that the milk and/or cream has been produced and handled in substantial compliance with the requirements fixed in the law.

During the years 1943, 1944 and 1945, inspection of dairy farms and milk plants by agents of the State Department of Health had been seriously

interfered with because of the inability of the Department to employ a sufficient number of inspectors who were properly trained to perform this work and also because of the lack of adequate funds to enable the inspectors of this Department to visit milk plants in distant states.

The Milk Committee of the State Board of Health made a request and secured sufficient funds for the employment of eight additional men on July 1, 1946, to make inspections throughout the entire New Jersey milk shed. These eight additional men were assigned to a training program, including special instruction at Rutgers University, and also training in inspection with experienced inspectors of this Bureau. It is our opinion that as a result of this intensive training, the Bureau of Food and Drugs has a staff of dairy and milk plant inspectors who are capable of enforcing the requirements of the laws of the State in a most satisfactory manner.

As a result of the inspections made during the summer of 1946, it was established that the conditions found on dairy farms and milk plants on several of the large supplies making application to ship cream and/or fluid milk into New Jersey located in the States of Minnesota, Wisconsin, Pennsylvania and New York failed to meet the requirements of this State and, consequently, it was necessary in 46 cases to deny the issuance of permits or to revoke permits already issued. It has also been necessary to take drastic action against ten companies operating plants in New Jersey because of violation of the requirements governing the sanitation of dairy farms and/or milk plants or the pasteurization of milk.

The following table shows the number of inspections of milk plants and dairy farms made by representatives of this Department during the year:

<i>State</i>	<i>Number of Inspections of Milk Plants</i>	<i>Number of Inspections of Dairies</i>
Delaware	1	22
District of Columbia	1	..
Indiana	2	10
Maryland	11	360
Michigan	3	49
Minnesota	3	51
New Jersey	1,948	7,326
New York	63	1,074
Ohio	1	40
Pennsylvania	119	1,411
Wisconsin	38	455
	<hr/> 2,190	<hr/> 10,798

The following table shows the number of reports of inspections of milk plants and dairy farms received from local boards of health of this State:

<i>State</i>	<i>Number of Inspections of Milk Plants</i>	<i>Number of Inspections of Dairies</i>
New York	2	77
Pennsylvania	5	526
	<hr/> 7	<hr/> 603

During the year, a large number of samples of milk, offered for sale as pasteurized milk, have been collected by this Bureau for the purpose of determining whether or not the milk had been properly pasteurized. A considerable number of these samples were found upon examination in the laboratory at Trenton to have been inadequately heated. In each case where milk was found to have been improperly pasteurized, a special investigation was made to ascertain, if possible, the defects in the process of pasteurization or handling in the milk plant which caused the milk to be improperly pasteurized.

During the year, our inspectors reported that equipment installed to pasteurize milk by the so-called "High Temperature-Short Time" method of pasteurization had been found to be operated in violation of the requirements for this process. In certain cases, drastic action was taken to compel operators of this type of equipment found to be defective to make changes in the equipment necessary to bring about compliance with the requirements covering this type of pasteurization. It seems most important to keep a very rigid control over the pasteurization of milk by the "High Temperature-Short Time" method because of the fact that milk pasteurized by this method is subjected to a temperature of 160° F. for only 15 seconds. Equipment used for pasteurizing milk by this process is to include automatic controls to assure that all milk is subjected to a temperature of 160° F. for at least 15 seconds. It is apparent that if the equipment used in this process becomes defective and subjects the milk to temperatures lower than 160° F., there is a possibility that the destruction of bacteria may not be sufficiently great to safeguard the milk. At the close of the year, there were 42 milk plants in New Jersey in which "High Temperature-Short Time" equipment was being used and the operators of ten additional plants intend to install equipment of this type as soon as it can be secured.

At the close of the year, a careful check was made of the quantities of pasteurized milk and the quantity of raw milk distributed in New Jersey. This study proves that approximately 98% of the milk sold in New Jersey is now pasteurized. It seems reasonable to recommend that legislation be

requested in the next session of the Legislature to require that all milk and cream distributed in New Jersey shall have been pasteurized.

SLAUGHTERHOUSE AND MEAT INSPECTION

Because of an unusual shortage of meat for distribution in New Jersey during the period of the war, there was an unusual demand for meat made upon the operators of local slaughterhouses of New Jersey. As a result of this increased business, there were approximately 70 new slaughterhouses that were constructed during the years 1944, 1945 and 1946. Before the construction of these slaughterhouses was approved, the operators were required to submit plans and specifications which would result in the construction of a slaughterhouse sufficiently large and properly constructed to permit the slaughtering and preparation of meat under clean conditions. These plans required that proper facilities for the disposal of both liquid and solid wastes be provided in order to prevent a nuisance in the neighborhood of the slaughterhouse. During the past fiscal year, most of these new slaughterhouses have been completed and have been used in the slaughtering of animals and the preparation of meat. During the first six months of 1947, several slaughterhouses have discontinued operations because of the inability to secure adequate numbers of animals for slaughtering to justify the continuance of the slaughtering operations.

During the past year we have placed emphasis upon the sanitary condition and the quality of ground meat products, such as sausages, bolognas, frankfurters, meat loaves, etc. Licenses are not issued by the State Department of Health for the operation of these plants although there seems to be a necessity to inspect the quality of raw materials entering into the composition of these products and also to inspect the conditions and methods used in the preparation of these foods. Inspections have been made of 70 of these plants during the year and of this number approximately 35 operated on a large scale distributing the foods at wholesale in New Jersey and also in nearby states. In most cases the bolognas and other ground meat products are consumed without additional cooking in the homes.

Animals lean in flesh are generally used in the preparation of this type of meat product. Trimmings resulting from the preparation of choice cuts of meats are included in meats to be ground. It is necessary to remove meat from bones before grinding and to cut it into relatively small pieces. These operations necessitate an unusual amount of handling which results in an unusual amount of contamination of the surface of the meat with micro-organisms. These micro-organisms which are present on the surface of the meat are distributed throughout the meat by grinding. The meat is heated to a greater or less degree by the grinding operation and the micro-organisms

may develop in the warm meat if the product is not cooked or refrigerated promptly. If ground meat products prepared in this manner are to be consumed as sold without deleterious effects, it seems necessary that the ground meat products be heated in the meat processing plant to a temperature sufficiently high to destroy the micro-organisms and to allow an ample margin of safety above the theoretical temperatures required for this destruction. The failure to inactivate the micro-organisms at the center of such products may result in the formation of a sufficient quantity of toxins to cause illness in those persons consuming such meat.

In the manufacture of sausages, bolognas, frankfurters, etc., the meat may also be subjected to a curing process with brine prior to grinding. In the inspection of these establishments, the salt used in making the brine was examined to determine whether or not it was filthy and recommendations were made to store the salt in such a manner that it would not be contaminated with filth. Operators were also instructed to prepare and hold the brine so that it would not be contaminated with filth.

In the case of several types of sausages and frankfurters, intestines of animals are used as containers for ground meat. During the past year, agents of this Bureau have inspected the manner in which these casings were being cleaned prior to use as containers for ground meat. In certain instances, it was found that casings were not being cleaned properly and that filthy casings were being used as containers for these food products. In these investigations it was learned that in certain instances intestines from animals which had been killed recently were being used and in certain other cases, casings were being used which had been imported from countries as far distant as Persia. In certain instances, the imported casings were found to be grossly decomposed at the time that they were being filled with ground meat. The only casings discarded were those which had decomposed to such an extent that the ground meat would not be retained in them.

Operators of these ground meat preparing establishments have been instructed: (1) that the rooms and all equipment and utensils used in the handling of meat are to be kept in a clean condition and are to be thoroughly cleaned at the end of the operation of each day, (2) all ingredients used in the food products are to be stored in such a manner that they are not contaminated with dirt or filth, (3) meat which is to be ground is to be trimmed in a manner that will remove contamination before it is ground, (4) the meat is to be handled in such a manner as to eliminate as much handling with human hands as is possible, (5) the meat is to be thoroughly chilled prior to grinding, (6) only clean ice, frozen from potable water, is to be added in the process of grinding and the quantity of ice added is to be limited to the minimum necessary to facilitate grinding.

Our agent reports that during the year he examined the following quantities of meats, together with the quantity of meats which were condemned and destroyed as being unfit for food purposes:

	MEAT INSPECTIONS		Condemned	
	Passed for Food Carcasses	Pounds	Carcasses	Pounds
Beef	506	24,100	3	160
Pork	388	100	..	...
Veal	92	...	..	...

SANITARY SHELLFISH CONTROL

Oysters, clams, soft clams and mussels continued to be in strong demand as food. Many former baymen had returned from service or employment, and had joined with many new men in the catching of shellfish in the tidal waters of the State. Activities to insure the safety of this food product, much of which is consumed raw, were vigorously prosecuted. Waters were surveyed and sampled, prohibited areas patrolled, handling and shipping periodically inspected, and shipping certificates issued after thorough investigations.

Three field laboratories were manned by three trained bacteriologists. A 61-foot laboratory boat visited all the areas where shellfish were taken, and samples were analyzed in the complete bacteriological laboratory aboard this boat. In addition, three small boats were used in the various districts. A crew of three men operated the boats. Overall supervision was maintained at the Department headquarters by the senior bacteriologist. Joint inspections were made with representatives of the United States Public Health Service to observe compliance with the Shellfish Manual of the Service. A campaign was initiated in the metropolitan area to improve retail handling of shellfish in stores, and to preserve the identity of shellfish from the point of catching to the final consumers. Many local health officers were much interested in these efforts to further safeguard the quality of shellfish in the shell, opened and frozen. Conferences were held to determine a feasible method of providing identification upon individual packages of frozen oysters, by means of a code number placed on the wrapper. Such coding will identify the contents right back to the waters from which taken. This is a necessity both to the industry and to the health official. Unfrozen shellfish are identified by a widely adopted tagging system, which is impractical for use on frozen packages.

New oyster opening (shucking) establishments were constructed and one freezing plant began operation. Close supervision by a resident bacteriologist

in this section maintained proper sanitary control. The medical examination of all the employees who shucked or handled opened oysters was continued and improved. Through the efforts of the industry and the local boards of health, large expenditures were made in improving drainage, toilet facilities, and waste and garbage removal in the areas adjacent to the shucking houses in which the employees live. Frequent sanitary inspection of these areas was maintained.

During the fiscal year there were examined in the laboratory of the boat "Inspector" 1,339 water samples. The boat traveled 1,075 miles through the various waters of the State. In addition, there were examined in the three field laboratories 154 samples of shell oysters, 327 samples of shucked oysters, 10 samples of frozen oysters and clams, 363 samples of hard clams, 90 samples of soft clams, 20 samples of mussels, 2 miscellaneous samples and 363 samples of water.

The total number of samples subjected to bacteriological analyses were 1,702 water samples and 966 shellfish samples, making a grand total of 2,668 samples analyzed.

Inspections were completed as follows: shellfish shipping establishments, 2,229; shellfish shucking establishments, 169; miscellaneous, 8. The grand total of inspections was 2,406.

Four hundred and eighty-eight establishments were granted shipping certificates by the Department.

SUMMARY OF ARTICLES OF FOODS CONDEMNED AND DESTROYED, WHICH WERE FOUND TO BE ADULTERATED

Article	Amount
Baking ingredients	2,554 pounds
Beverages and syrups	2,762 bottles
Canned foods	76 cans
Edible oil	30 gallons
Eggs, frozen, whole or powdered	69 pounds
Flour	6,278 pounds
Fresh vegetables	1,800 pounds
Meats and poultry	183 pounds
Milk products	165 pounds
Nuts and fruits	947 pounds
Salt	105 pounds
Shellfish	54 pounds
Sugar	601 pounds

SUMMARY OF EXAMINATIONS OF SAMPLES OF DRUGS

Certain drugs were selected for collection and examination for the purpose of ascertaining whether or not these articles were prepared and sold in accordance with the official definitions and standards and also with the provisions of law which require the declaration of the active ingredients, of adequate directions for use and of adequate warnings against unsafe use.

Inspectors of the Bureau visited many pharmacists throughout the State and requested dangerous drugs, which are prohibited from sale excepting upon prescriptions, without presenting prescriptions. It is gratifying to report that there was general compliance with the laws of the State in connection with the sale of dangerous drugs by the retail pharmacists.

In many cases of misbranding in which adequate directions for use and adequate warnings against possible dangers in use were omitted, warnings were sent to the persons or firms preparing and distributing the articles to correct these labelings.

PENALTIES

During the year, \$3,916.21 was collected in penalties and costs for violation of the food and drug laws.

FEES

The following fees were collected during the year for licenses and permits:

632 Milk permits	@	\$25.00	\$15,800.00
19 Goat milk permits	@	10.00	190.00
1 Goat milk permit	@	5.88	5.88
1 Goat milk permit	@	3.36	3.36
27 Ice cream plant licenses	@	100.00	2,700.00
9 Ice cream plant licenses	@	50.00	450.00
13 Ice cream plant licenses	@	25.00	325.00
49 Ice cream plant licenses	@	10.00	490.00
527 Ice cream plant licenses	@	5.00	2,635.00
75 Cold storage licenses	@	10.00	750.00
6 Narcotic drug licenses	@	50.00	300.00
38 Narcotic drug licenses	@	5.00	190.00

1,397

\$23,839.24

SAMPLES OF MILK, CREAM, FOODS, DRUGS COLLECTED FOR ANALYSES

	Above Standard	Below Standard	Misbranded	Total
Milk and cream	4,817	213	37	5,067
Foods	2,400	210	4	2,614
Drugs	203	14	79	296
	7,420	437	120	7,977

SANITARY INSPECTIONS MADE OF ESTABLISHMENTS WHERE FOODS AND DRUGS ARE PRODUCED, PREPARED, PACKED, STORED OR OTHERWISE HANDLED

	Inspections
Bakeries	1,974
Candy factories	20
Canning factories	94
Cider presses	2
Cold storage warehouses	352
Dairies	7,326
Drug manufacturing establishments	44
Egg-breaking establishments	41
Flour distributing warehouses	10
Hospital kitchens	15
Ice cream manufacturing plants	712
Meat markets	128
Meat processing plants	70
Milk plants	1,948
Miscellaneous food plants	13
Non-alcoholic beverage establishments	248
Pickling plants	45
Restaurants and hotel kitchens	1,592
Shellfish shipping establishments	2,229
Shellfish shucking establishments	169
Shellfish inspections (miscellaneous)	8
Slaughterhouses	648
	17,688

COLD STORAGE OF FOODS

The shortage of foods during the war in New Jersey was caused largely by the diversion of many of the staple foods to the armed forces. Many of the people in this State took steps to secure as much food as they could from near-by sources. This unusual activity in the rural sections of New Jersey stimulated the construction of cold storage warehouses in which many of these perishable foods could be preserved by freezing and storage until needed. In the past four years, there were 44 quick-freezing cold storage warehouses put in operation in New Jersey. At most of these plants it was possible for individuals to lease lockers in which the frozen foods owned by the individuals could be stored.

The apparent simplicity of the quick-freezing of foods has resulted in a false conception by many people that practically no precautions to follow exact scientific procedures are necessary. However, it has been established that there are certain scientific laws which must be followed exactly if perishable foods are to be preserved by this method without damage to the wholesomeness, flavor or appearance of the food.

It has been established by certain scientists that the only successful way of freezing vegetables is to secure fresh vegetables of the proper varieties at the proper stage of development and to subject the vegetables to a blanching with hot water or steam for a very definite period of time. It has also been found that it is necessary to cool the blanched vegetables quickly, preferably by immersion in cold or ice water, until the vegetables have been cooled throughout. Vegetables should then be placed in small packages which should be moisture-proof and such packages of vegetables should be frozen promptly and rapidly at low temperatures.

Operators of quick-freezing cold storage warehouses in New Jersey have not provided equipment in most cases for the blanching and packaging of vegetables at the plant. Consequently, vegetables which are prepared for freezing at some point more or less distant from the freezer, are not being prepared and frozen in accordance with proper theoretical methods. The spoilage of one very large lot of asparagus which was improperly processed and frozen has resulted in damage suits which have been contested vigorously.

During the past year it has come to our attention that two lots of fresh beef had been aged in coolers at quick-freezing cold storage warehouses and that this beef had been trimmed and the trimmings from this aged beef had been ground prior to freezing and storage. Large cakes of this ground beef had been frozen at low temperatures. Illnesses resulted when this ground meat had been consumed upon removal from storage. In most of the quick-freezing cold storage warehouses of the State larger quantities of meat than other types of food have been frozen because of the unusual scarcity of meats in this State during this period. It appears from these experiences that certain operators of quick-freezing cold storage warehouses are not skilled in the science and art of preparing meat for quick-freezing and that considerable quantities of meat are likely to be unfit for use when removed from storage because of the improper condition or preparation of the meat at the time of freezing.

These matters were discussed at the annual meeting of the Refrigeration Association of New Jersey and that association was urged to point out to its members the importance of handling perishable foods in the correct theoretical manner prior to freezing and to freeze and store them under proper conditions. It does not seem possible for this Bureau to provide sufficient inspection at these places to prevent the loss of large quantities of food.

EXTENSIONS OF STORAGE

In the Cold Storage Law of New Jersey, there is a provision that the Department shall extend the period of storage beyond twelve months for a particular article if it is found upon examination to be in proper condition for further storage. The length of time for which the storage is allowed shall be specified in the order granting the extension of time. During the past year we have had an unusually large number of requests for extensions of time on the storage of many different articles of food. The stocks of poultry in particular have been very large and it has been necessary for the Department to grant extensions of storage because of the fact that this food has not moved into consumption freely. It has also been found that a number of the quick-frozen prepared foods, such as chicken and rice, chili con carne, turkey and noodles, etc., have not been sold in quantities anticipated and it has been necessary to grant extensions on the storage of such articles. The Department has limited the extensions of storage to periods from one to three months in most cases, acting on the thought that the granting of lengthy extensions of storage in excess of twelve calendar months violated the spirit of the Cold Storage Law of the State.

During the last fiscal year, extensions of time were granted for the storage of articles of food in cold storage, as follows:

<i>Quantity</i>	<i>Article</i>	<i>Extension Granted</i>
30 boxes	Poultry	3 months
352 boxes	Cheese	3 months
504 boxes	Poultry	2 months
460 barrels	Poultry	2 months
902 boxes	Fish	2 months
8 barrels	Cured meats	2 months
18 boxes	Cured meats	2 months
270 cartons	"Frozen chicken and biscuit"	2 months
70 cartons	"Chicken and vegetable dinner"	2 months
514 boxes	Poultry	1 month
208 barrels	Poultry	1 month

In each case where extensions of time were granted, the articles were examined and found to be in suitable condition for the additional periods of storage.

DEPARTMENT OF HEALTH

ANNUAL COLD STORAGE REPORT

1946—1947

Article	July 1946	August 1946	September 1946	October 1946	November 1946	December 1946	January 1947	February 1947	March 1947	April 1947	May 1947	June 1947
Eggs, casea, lbs.	803,141	644,434	504,631	262,219	186,411	113,873	39,004	50,233	93,769	225,063	407,326	629,255
Eggs, broken, lbs.	7,421,342	6,035,354	5,331,200	4,613,639	3,881,761	2,861,184	1,834,687	2,360,086	2,507,834	3,027,606	4,312,801	3,882,281
Cheese, lbs.	5,099,602	6,190,317	5,368,382	4,835,631	5,648,384	4,446,785	3,832,804	2,964,477	2,071,198	2,220,370	2,310,582	3,173,603
Butter, lbs.	5,270,298	6,291,415	5,716,011	4,073,019	2,916,290	1,272,109	1,225,610	827,128	594,548	690,517	679,576	2,217,847
Poultry, lbs.	10,804,014	12,833,829	8,020,925	17,728,192	17,768,715	18,508,908	16,713,165	16,444,708	13,427,073	10,548,059	10,144,922	8,926,552
Fresh meat, lbs.	11,741,151	16,026,024	8,228,889	5,602,654	7,067,423	9,512,489	12,049,077	19,643,608	26,461,407	22,510,220	22,668,303	23,276,388
Fresh fish, lbs.	4,109,705	4,761,077	6,005,330	6,358,181	6,677,149	8,007,935	6,093,764	4,922,357	3,410,540	4,941,658	4,803,808	6,376,139
Milk and milk products, lbs.	11,444,028	9,225,913	7,007,170	5,410,672	6,071,820	5,858,724	4,463,374	3,902,479	1,776,140	4,194,068	4,766,244	3,468,400
Edible fats and oils, lbs.	2,946,718	3,860,760	2,287,682	1,605,872	1,242,411	1,362,210	3,947,081	2,292,762	3,121,605	2,847,040	4,770,801	1,895,170
Game, lbs.	266	1,145	1,111	7,285	5,683	13,940	6,860	3,548	2,453	2,281	2,232	1,740
Miscellaneous, articles, packages	969,733	1,174,554	1,080,625	1,664,206	1,682,444	1,429,947	1,480,002	1,324,084	940,465	1,128,087	711,027	833,071

Report of the Division of Health Education

July 1, 1946-June 30, 1947

By RALPH T. FISHER, Chief

Created on July 1, 1945, the Division of Health Education was firmly established during its second year with a planned expansion and strengthening of the centralized health education services which it provides as part of the basic health education program. Originally established as a separate Bureau, the Division of Health Education was made a part of the Bureau of Preventable Diseases when that Bureau was established in December, 1945. As the program of the Division was expanded and services were provided for all bureaus and divisions of the Department, it became obvious that it could better function as a separate unit. In September, 1946, the State Board of Health removed the Division of Health Education from the Bureau of Preventable Diseases and established it as a separate Division of Health Education under the Director of Health.

The following six-point program on which the work of the Division is based was continued:

1. Working with other units of the State Department of Health.
2. Working with other departments of the State government.
3. Working with non-official health agencies.
4. Working with citizen groups.
5. Working with local health departments.
6. Providing an in-service training program and conducting courses for public health personnel.

COMMUNITY HEALTH ORGANIZATION

Community health organization work is a primary function of the Health Education Division and budgetary requests were made for funds to establish positions of community health educators for assignment to State District Health Offices. Working with State health and welfare groups, a number of community endeavors were fostered although it was impossible to meet more than a few of the community needs without a field staff. Consultation services were provided, however, for a number of local groups.

Of the projects of this type completed during the year, the following three are typical examples:

Working jointly with the New Jersey Health Officers' Association, the Bureau of Food and Drug Control and the Bureau of Local Health Services, a guide for use of health officers in conducting foodhandler training courses was published and a number of visual aids were purchased and made available for use.

Working with a county Tuberculosis League, a seven-week training course for community leaders in that county was planned and organized.

Working with other units of the Department of Health, local health departments and various health and welfare organizations, special educational programs were planned and conducted in certain fields, including National Social Hygiene Day, Public Health Nursing Week and Negro Health Week.

PUBLIC HEALTH COURSES

Administration for the Department of the Public Health Courses, which have been conducted jointly by Rutgers University and the State Department of Public Health since 1926, was transferred from the Bureau of Local Health Services to the Division of Health Education.

During the spring session five courses of 20 hours each over a period of ten weeks starting March 12, 1947 were given each Wednesday evening as follows:

An Industrial Health Program for the Local Health Department, by J. C. Radcliffe, Chief, Division of Adult and Industrial Health, State Department of Health, given at Newark.

Plumbing Regulation and Inspection, by Patrick J. Monaghan, Assistant Chief, Plumbing Inspector, Newark City Health Department, given at Englewood.

Basic Hygiene in Public Health, by Dr. Roscoe P. Kandle, Director, Bureau of Preventable Diseases, State Department of Health, given at New Brunswick.

Basic Sanitation—two classes by Harry Ford Leeds, District Health Officer, State Department of Health, given at Bridgeton and Seabrook Farms.

A total of 61 students completed work in the 1947 spring session courses.

ANNUAL CONFERENCE

Responsibility for organizing and conducting the Annual Conference of State and Local Health Officials, called each year by the Director of Health, was transferred from the Bureau of Local Health Services to the Division of Health Education.

The 36th Annual Conference of State and Local Health Officials of New Jersey was held in the State House, Trenton, on February 28, 1947. The program of the conference follows:

9:00 A. M. Motion Pictures and Exhibits.

MORNING SESSION—10:15 A. M.

- 10:15 A. M. *Control of Whooping Cough Morbidity.*
Roscoe P. Kandle, Director, Bureau of Preventable Diseases, State Department of Health.
- 11:00 A. M. *Larger Local Health Units.*
Dennis J. Sullivan, Chairman, Joint Committee, New Jersey Health Officers' Association, New Jersey Health and Sanitary Association.

REGISTRARS SECTION—10:15 A. M.

Walter R. Scott, State Registrar, and members of his staff met with local registrars in the Assembly lounge for an informal session of questions and answers on registration of vital records.

12:00 Noon. Recess for lunch.
New motion pictures.

AFTERNOON SESSION—2:00 P. M.

- 2:00 P. M. Presiding—J. Lynn Mahaffey, M.D., Director of Health.
BCG and Antibiotics—Present and Possible Applications to Public Health.
Assistant Surgeon Warfield Garson, U. S. P. H. S., New Jersey Agricultural Experiment Station, Department of Microbiology, Rutgers University, New Brunswick, N. J.
- 2:30 P. M. *Can Tuberculosis Be Eradicated?*
Frederick P. Lee, M.D., President, New Jersey State Board of Health; Health Officer, City of Paterson.
- 3:00 P. M. *Public Health Control of Ringworm of the Scalp.*
C. E. McNenny, M.D., Chief, Medical Division, Health Department, Jersey City; B. S. Bookstaver, M.D., Medical Health Director, Teaneck Health Department; Hugh Martin, Health Officer, City of Englewood; Eugene L. Speranza, Chief Inspector, West New York Health Department.

3:45 P. M. *New Programs for New Jersey.*

Community Wide Industrial Surveys—J. C. Radcliffe, Chief, Division of Adult and Industrial Health, New Jersey State Department of Health.

Nutrition—Miss Elizabeth Porter, Bureau of Preventable Diseases, New Jersey State Department of Health.

Cancer Control—Raymond V. Brokaw, M.D., Chief, Division of Cancer Control, New Jersey State Department of Health.

4:15 P. M. Adjournment.

SATURDAY, MARCH 1, 1947

9:30 A. M. Annual Meeting of New Jersey Health Officers' Association. Business session and committee reports.

HEALTH EDUCATION WAREHOUSE AND WORKSHOP

A central warehouse for storage and mailing of health education materials for the Department was established and operated by the Division, eliminating duplication in storage facilities and packaging and mailing operations. A conference room for staff meetings and small group meetings was equipped with a 16 m.m. sound projector for screening of films.

The exhibit display units of the Department were brought together at the health education workshop for central storage, maintenance and distribution. Older display units were reviewed and a number were discarded as obsolete. Usable parts were salvaged for new construction. The Division has six display units now in use. A cancer display unit was scheduled for exhibition at the American Public Health Association meeting in Cleveland, and a new 25-foot exhibit was constructed and displayed at the annual meeting of the American Medical Association in Atlantic City. This display shows the working partnership between physicians and health departments in New Jersey in six health fields and was well received at the national meeting. A special exhibit was displayed for one week at the New Jersey State Fair and smaller exhibits were placed at county fairs. Throughout the year, a number of exhibits were shown at State and local meetings.

HEALTH EDUCATION PRINTSHOP

Production of materials in the health education printshop was continued and purchase of an additional multilith press was planned. The health education workshop turned out a number of exhibits, posters, illustrations, charts, signs and other commercial art work. The photographic camera and dark-room equipment was surveyed and new equipment ordered, including an enlarger, automatic print washer and automatic print dryer. Standardization of work procedures and coordination of the workshop, printshop and warehouse was effected.

The film library of 54 film titles was reviewed and nearly one-half of the films were withdrawn as obsolete or damaged from over-use. Repairs were made when possible and specific recommendations for purchase of new films by the Department were made. Since the Health Education Division has no funds for film purchases, all films must be purchased by the bureaus of the Department concerned with the specific field. In most cases only one print of each title is available, making it impossible to meet all requests. The films are booked by the New Jersey State Museum and during the fiscal year there were 2,381 showings with a reported total audience of 137,000.

The news release service of the Department was continued and the public press of the State is to be commended on the cooperation given in presenting health facts and news to the public. Weekly radio programs on a number of stations were conducted.

PUBLIC HEALTH NEWS

Public Health News, official publication of the Department, was issued bi-monthly. A change of format from single to double columns increased the amount of copy per issue by 40%, allowing a greater coverage of public health news in New Jersey. With the retirement of Cecil K. Blanchard, the "Mark Time" series which he had written came to an end with the February, 1947 issue, and a new series, "Dr. Teacher, Health Officer," written by Ralph T. Fisher, was begun in the April, 1947 issue. The Health Education Division published "Mark Time," a selection of "Mark Time" columns which had appeared regularly in *Public Health News* since 1929.

During the fiscal year appointment was made in the position of Assistant Chief, which had remained vacant since its creation because of lack of qualified applicants. Mr. John B. Van Ellis, a former employee of the Department, was appointed upon his return from military service to fill the position.

The rapid turn-over of personnel and inability to fill vacant positions at existing salary schedules handicapped the work of the Health Education Division. During much of the year the varitype composition and multilith production was halted because of turn-over of trained personnel. Low salary schedules make it necessary to employ untrained persons and provide training on the job after employment. These persons usually leave as soon as sufficient training and experience have been acquired to fit them for a better paying job elsewhere.

The second year of its work has served to expand and establish the central health education services of the Division and significant progress has been made in community health organization work in New Jersey. The real work of the Division in Community Health Education, however, awaits the develop-

ment of the plan for the appointment of community health educators or health extension workers in the State District Health Offices. With such a field staff, the Department could provide a basic service in community health education, and to this end, renewed requests for the needed funds have been made for the ensuing fiscal year.

Report of the Bureau of Local Health Services

For the Year Ending June 30, 1947

By WILLIAM H. MACDONALD, *Chief*

By action of the State Board of Health on January 14, 1947, the name of the Bureau was changed from Bureau of Local Health Administration to Bureau of Local Health Services. At the close of the fiscal year the personnel of the Bureau at the central office in Trenton consisted of the Chief, the Assistant Chief, and the Distributor of Biologicals and 11 stenographic and clerical assistants. Mr. Cecil K. Blanchard, Supervisor of District Health Officers and Sanitation, retired on February 1, 1947, after 35 years of service with the Department.

The eight district health offices maintained through the Bureau at Dover, Hackensack, Highland Park, Freehold, Mt. Holly, Collingswood, Pitman and Mays Landing were continued during the year. At each district office, except Collingswood and Freehold, there were employed at the close of the fiscal year in addition to the district health officer, a sanitarian and a clerk. The sanitarian regularly assigned to the Freehold office was granted leave to attend a training course in public health on October 1, 1946. At the Collingswood office there is neither a sanitarian or a clerk. The district health officer at that office beginning on February 1, 1947, was assigned also to serve for part of his time in Mercer County. In addition the Bureau's staff included two public health nurses (communicable diseases), one assigned to the Mt. Holly and the Mays Landing offices respectively.

Prior to July 1, 1946, the Department had been requested to supervise four public health nurses employed by the Board of Freeholders of Atlantic County, the supervision to be supplied through the District Health Office at Mays Landing and the activities of the nurses to be confined to the inland section of the county west of the draw-bridge. After conferences the request was granted, with the proviso that the work of the nurses be confined to the field of prevention and control of tuberculosis, venereal diseases and other communicable diseases. The public health nurse at the Mays Landing district office was promoted to the grade of assistant supervisor of public health

nurses. Additional office space was provided through the courtesy of the board of freeholders in a county building. In these quarters also there was installed an X-ray unit for chest examinations, procured through funds allotted for the Division of Tuberculosis Control.

Another X-ray unit was installed at a clinic center in Hammonton equipped for chest examinations and for the diagnosis and treatment of venereal diseases. Funds for rental, renovation and maintenance of these quarters were provided through the Regional Health Commission, including the Boards of Health of Hammonton, Folsom, Mullica Township and Buena Vista Township. These local funds were supplemented by State funds allotted from Federal subsidies.

Dr. Max Gross, of the State Hospital for Tuberculosis at Glen Gardner, acted as the clinic physician in the chest clinic at both Mays Landing and Hammonton.

At the end of the fiscal year three nurses employed by the county were working from the district health office.

REPORTABLE DISEASES FOR 1946

Thirty-nine diseases are declared reportable by Regulation 1, Chapter VI of the State Sanitary Code. During the calendar year 1946 local boards of health reported to the State Health Department 114,004 cases of these 39 diseases. This figure is almost exactly twice the number reported in 1945, when 57,097 cases were recorded. The increase is almost entirely accounted for by the high prevalence of measles in 1946. The so-called children's diseases, chickenpox, measles, German measles, mumps and whooping cough accounted for 87% of the cases reported in 1946.

Diphtheria reports numbered 249, an increase of 109 over the 1945 figure. Deaths were 13, against six in 1945.

Measles reports increased from 1,747 in 1945, the lowest figure ever recorded in New Jersey, to 56,421 in 1946, which is the highest on record. Deaths numbered 27 in 1946, against six in 1945.

Meningitis (epidemic cerebrospinal) reports numbered 184, a decrease of 116 from the 1945 figure. Deaths also declined from 64 in 1945, to 40 in 1946.

Pneumonia reports totaled 4,239, against 3,849 in 1945. Deaths were also higher in 1946 than in 1945, the number recorded being 1,438 against 1,668.

Poliomyelitis (acute anterior) reports dropped from 952 in 1945, to 257 in 1946. Deaths also dropped from 102 to 24.

Scarlet fever case reports were practically the same as in 1945, the totals being 4,231 in 1946, and 4,243 in 1945. Five deaths were recorded in each of these two years.

Tuberculosis figures showed an increase from 3,413 in 1945, to 3,618. Deaths, however, decreased from 1,726 to 1,643.

Typhoid fever reports dropped from 80 in 1945, to 58 in 1946. Only once before (1943) has such a low annual figure been recorded. The number of deaths in 1946 was three, the lowest number ever recorded in this State.

Whooping cough reports decreased from 7,317 in 1945, to 7,040 in 1946. Deaths increased from 24 to 27. Eighteen of these deaths were in infants under one year of age, and four in the one to four year age group.

ANTHRAX

Four cases with one fatality were reported in 1946. Two of the cases were in persons employed in industrial plants, one handled hides, the other wool.

MALARIA

During 1946 there were reported 931 cases. This is the second highest number reported in this State in any year since the disease was made reportable in 1911. In 1945, 1,412 cases were reported. Only two deaths from malaria were recorded in 1946. Of the 931 cases reported in 1946, 917 were in returned Army and Navy personnel. All of this group of cases were apparently infected outside of New Jersey. Study of the histories of the 14 nonmilitary cases shows that eight were infected outside of the State, five were infected in New Jersey (one of these through blood transfusion). The place of infection in the one remaining case was not determined.

The cooperative plan for exchange of information regarding reported cases of malaria between the State Department of Health, the New Jersey State Experiment Station and county mosquito extermination commissions, as instituted during the World War period and described in previous reports, was continued during the year.

ROCKY MOUNTAIN SPOTTED FEVER

Seventeen cases were reported in 1946, two more than in 1945. Two deaths were recorded. The cases were distributed by counties as follows: Burlington, Cumberland and Gloucester Counties, three cases each; Ocean County, two cases; Atlantic, Cape May, Essex, Middlesex, Monmouth Counties, one case each, and one case in a military post. As in the past, the Department upon request furnished physicians with vaccine for protective inoculations. The United States Public Health Services provided the vaccine.

TRICHINOSIS

Nineteen cases with one death were reported in 1946. The record for 1945 was 26 cases with one death. Case histories indicated that 14 of the 19 cases occurred in persons who gave a history of having eaten pork or pork products shortly before the onset of illness. In one case raw ground meat of unknown kind is alleged to have been eaten and in the other four cases satisfactory data as to the probable source of infection could not be obtained.

TULAREMIA

For the first time in 16 years no case of this disease was reported.

UNDULANT FEVER

Case reports dropped from 73 in 1945, to 56 in 1946. One death was recorded in 1946, none in 1945. There were four counties in which no case was reported in 1946, Atlantic, Cape May, Ocean and Union. The counties with the highest number of cases were Sussex with seven, Essex and Morris with six each.

Case histories obtained by the Department's district health officers or by local health officers showed that 14 of the patients had been regular users of raw milk before illness; six had used both raw and pasteurized milk; two had used pasteurized milk regularly and raw milk occasionally; four had used pasteurized milk regularly, but occasionally milk of unknown kind; 16 gave no history of the use of milk other than pasteurized, but of these one worked in a dairy, one in a pork packing plant and one in a slaughterhouse. In ten cases no definite information as to the use of milk was obtained, but one of these was a meat inspector and one a laboratory technician. In four instances the case histories pointed to infection outside of New Jersey. Of the 42 cases for which information as to the use of milk was available, raw milk was a factor in 22, or 52%. Eighteen of the total number of 56 cases reported were in persons whose occupation may have afforded an opportunity to acquire infection. They were: meat industry 6, farm work 7, milk handlers 2, food handlers 2 and laboratory worker 1.

INVESTIGATIONS OF COMMUNICABLE DISEASES

During the fiscal year ending June 30, 1947, employees of the Bureau investigated 344 cases of communicable diseases, exclusive of tuberculosis and venereal diseases. These cases were distributed by disease as follows:

Chickenpox	49	Poliomyelitis	46
Diphtheria	58	Rocky Mountain spotted fever	18
Dysentery, amoebic	14	Scarlet fever	14
Dysentery, bacillary	3	Streptococcic sore-throat	2
Malaria	23	Trichinosis	2
Measles	2	Typhoid fever	32
Meningitis, epidemic cerebrospinal ..	13	Undulant fever	34
Paratyphoid fever	6	Whooping cough	1
Ringworm of the scalp	27		

In addition to the cases listed above, investigations were made by the Bureau of the following outbreaks of gastro-enteritis:

Municipality	No. of Cases	Vector or Suspected Vector of Infection
Bridgewater Township	4	Custard filled doughnuts
Paterson City	5	Bologna
Randolph Township	150	Turkey dressing
State Colony, Woodbine	252	Pudding
Warren Township	21	Turkey and dressing
Warren Township	2	Baked ham

The following additional outbreaks of gastro-enteritis were reported by local health officials:

Municipality	No. of Cases	Vector or Suspected Vector of Infection
Atlantic City	50	Cream puffs
Nutley Town	10	Cream-filled cake
River Edge Borough	3	Cream puffs
Trenton City	not definitely determined, but large	
Trenton City	4	Unrefrigerated food Cup cakes

DAIRY PREMISES

Under Regulation 4, Chapter VI, of the State Sanitary Code cases of diphtheria, dysentery, paratyphoid fever, scarlet fever, streptococcic sore throat, tuberculosis and typhoid fever are reportable by physicians directly to the State Health Department when they occur on a dairy premises or in the dwelling in which a dairy worker resides. During the fiscal year such cases were reported on 22 dairy premises and included 22 cases of scarlet fever, tuberculosis 1, diphtheria 1, and streptococcic sore throat 1. The daily milk production on the 22 dairies amounted to about 17,780 quarts. Through the efforts of the district health officers, with the assistance of local health officials, satisfactory precautionary measures designed to prevent the spread

of infection through milk were established at each dairy, so that it was not necessary to interrupt the sale of milk.

TYPHOID CARRIERS

At the close of the fiscal year 86 persons were recorded in the files of the Department as carriers of typhoid bacilli. Seven were withdrawn from the list during the year; six by death and one by removal from the State. Two persons were added to the list of carriers. These were discovered as a result of investigation of cases of typhoid fever in an institution of the State.

TOXOID AND VACCINE

Diphtheria toxoid (alum precipitated), diphtheria toxoid (Ramon), smallpox vaccine, typhoid and paratyphoid vaccine combined, whooping cough vaccine, and diphtheria toxoid-whooping cough vaccine combined, were made available to physicians, and also to local boards of health for clinic purposes, at 63 distributing stations located at strategic points about the State. Anti-rabies vaccine (human) was also made available at distributing stations. Reports received from physicians and local health departments during the fiscal year ending June 30, 1947 show that at least 36,661 children received diphtheria toxoid distributed by the State Health Department and 37,759 received either diphtheria toxoid-whooping cough vaccine combined or received whooping cough vaccine alone. The latter group numbered 9,013. Unfortunately, for a time during the latter part of the year when smallpox vaccinations were being performed on an unprecedented scale, the supply of all report forms at distributing stations became temporarily exhausted and as a result there occurred more than the normal number of unreported instances of the use of all biologics. The figures given above, therefore, probably represent about 75% of the children who received diphtheria toxoid and whooping cough vaccine supplied by the State during the year.

In regard to smallpox vaccine the year was quite unusual in view of the unprecedented demand for this material resulting from a desire on the part of so many persons to secure vaccination after the occurrence of cases of virulent smallpox in New York City. News of the occurrence of these cases was released from the New York City Health Department early in April. By April 14 all balances in the biological account of the State Health Department which could be used for the purchase of smallpox vaccine had become exhausted. On this date Governor Alfred E. Driscoll personally authorized the further expenditure of \$15,000 for smallpox vaccine, provided this amount was taken from unexpended balances in any account and remaining to the credit of the State Health Department from appropriations for the year. On

April 17 a death from smallpox occurred in the City of Camden in a visitor from Trenton. Newspaper accounts of this death again greatly stimulated the desire for vaccination. Much of the supply of vaccine made by eastern manufacturers was sent to New York City; therefore, material for use in New Jersey was purchased from any manufacturer in a position to release it. On April 17 Governor Driscoll authorized a further expenditure for smallpox vaccine stipulating, however, that this additional sum be in the nature of a revolving fund and that charge at cost be made for vaccine furnished industrial plants, local boards of education, private schools, and also to physicians for use in private practice, payments to be credited to the fund. This procedure was later confirmed by special act of Legislature. During the period of the emergency, smallpox vaccine was secured from six different manufacturers in packages containing 5, 10, 50, and 400 points. One c.c. vials of vaccine were also purchased and utilized with good results in group vaccinations in clinics and industrial plants. No attempt was made during the period of the emergency to secure complete reports of individuals vaccinated. By means of a questionnaire to local boards of health at the end of the emergency, it was concluded that over one million persons were vaccinated in New Jersey from a period early in April to about the middle of May.

OTHER BIOLOGICALS

In the fall of 1946 in response to definite requests a limited amount of influenza virus vaccine A and B was purchased for distribution. This material was also placed in distributing stations where it was available to physicians and to local health departments. Immune serum globulin as a preventive of measles was made continuously available throughout the year, in the 63 distributing stations, all of which was supplied without charge by the American Red Cross. A total of 6,800 packages, each containing 2 c.c. of the globulin was received from the American Red Cross during the year.

Sufficient rabies vaccine was released for a complete treatment of 14 doses to 580 persons. A very limited amount of anti-pneumococcic sera was distributed throughout the year.

BLOOD PLASMA

The American Red Cross released to the State Health Department for distribution throughout the State blood plasma available in excess of the needs of the armed forces. All hospitals in the State were given an opportunity to receive plasma and to act as distributing stations for the material. Practically all hospitals took advantage of this opportunity. A few distributing stations were also established at State police barracks, at the offices of some local boards of health-and at a few local police stations. The material was

made available without charge for use in hospitals and for the use of physicians in private practice. The material was distributed with the understanding that no charge would be made for any of the plasma administered to a patient although it was agreed that for the administration of plasma to a patient in an institution a service charge could be made; no restriction was placed upon a physician in charging for administering the plasma.

Packages of plasma varying in size from 250 to 500 c.c. were received in cartons from the American Red Cross and the first delivery of plasma to each station was made by Red Cross personnel. Subsequently, requests for a renewed supply of plasma from any station were filled by express collect unless the station sent its own conveyance for the material. Surplus was stored at a public warehouse in Trenton, the supply being renewed from time to time by requisition on the American Red Cross. Forms were supplied distributing stations for the convenience of physicians in reporting the use of plasma obtained by them from a station. These reports indicate that the most frequent usage of the plasma was in the treatment of shock. Hemorrhage, obstetrical and surgical, were also frequently mentioned among conditions treated.

TUBERCULOSIS AND INDUCTION BOARDS

Early in the application of the Selective Service in 1941 there were secured by or made available to the State Health Department names of persons deferred from military service because of signs of tuberculosis. These names at first were obtained from records at the State headquarters of the Selective Service and later were forwarded directly to the State Health Department from military examining boards and induction stations. The names of these persons were referred to local agencies either directly from the State Health Department or through State district health offices. Local agencies were requested to urge these deferred persons to seek local examination and forms were supplied local agencies for the use of physicians in reporting to the State Health Department the results of such examinations as they related to the presence of tuberculosis either in an active or arrested stage. The records of the follow-up of this entire group of persons were closed as of May 15, 1947. At that time each of the 6,145 persons reported as deferred from military service with evidence suggestive of tuberculosis had been followed up and the results of the follow-up together with the result of any re-examination tabulated. Of the 5,040 which were known to have been re-examined and the results of such examination listed, a total of 1,275 showed active tuberculosis; 2,947 arrested tuberculosis, and 335 some chest pathology other than tuberculosis. A total of 483 were reported on re-examination by local physicians or clinics as showing no apparent chest pathology. The names of all persons in this latter group were supplied to the State Selective

Service officials who in turn referred the names to local draft boards for re-call by such boards. Records are not available at the office of the State Health Department to show completely the result of subsequent examination by the Selective Service, however, it is known that some were admitted to military service while others were again deferred because of physical conditions either tuberculous or otherwise. A summary of the results of the follow-up of the 6,145 persons is given in the following tabulation:

RESULT OF FOLLOW-UP AND RE-EXAMINATION OF 6,145 PERSONS RECORDED AS DEFERRED FROM MILITARY SERVICE BECAUSE OF EVIDENCE OF TUBERCULOSIS

I. Number recorded on re-examination by family physicians or chest clinics as			
a. Tuberculosis—active	1,275		
b. Tuberculosis—arrested	2,947		
		4,222	
c. Pathology other than tuberculosis	335		
d. No apparent pathology	483		
			818
II. Residents of other States, referred elsewhere for re-examination	596		5,040
III. Number not located for interview	265		
IV. Reported by investigator as in some branch of military service	113		
V. Deceased before re-examination	19		
VI. Record of re-examination lacking or not sufficiently complete for classification	112		
		1,105	
			1,105
			6,145

TUBERCULOSIS IN INDUSTRIAL PLANTS

Following the practice previously established, the names and addresses of persons found to show signs suggestive of tuberculosis in X-ray screening examinations in industrial groups and in community groups by the Division of Tuberculosis Control were referred to the Bureau of Local Health Services for follow-up. Any person so reported who gave the name of a family physician was urged by mail to consult the physician promptly and the physician was notified of the interpretation of the reading of the film taken in the mass survey. The physician was requested to file a report showing the decision finally reached as to whether there was found present tuberculosis either in an active or arrested stage. Names of persons who did not give the name of a family physician and also the names of persons whose family physician did not file a report form within a reasonable time were referred for visitation and follow-up either directly or through district health offices

to such local agencies as local health boards, county tuberculosis associations, and tuberculosis hospitals. During the year ending June 30, 1947, 1,817 persons were referred to this Bureau from the Division of Tuberculosis Control. Obviously the follow-up of all these persons could not be completed in the same fiscal year. However, in the follow-up work which was completed during the year, both of persons referred within the twelve months period and of some others previously referred, there were recorded on re-examination 82 active cases of tuberculosis and 513 cases of arrested tuberculosis. One hundred seventy-three were recorded as showing chest pathology other than tuberculosis; 163 were recorded as showing on re-examination no significant chest pathology.

The mass chest X-ray program of the Department was started in the year 1942. From the beginning of the work to June 30, 1947, reports filed by physicians and clinics on the re-examination of tuberculous suspects located in the industrial and community surveys showed a total of 241 active cases of tuberculosis and a total of 1,383 arrested tuberculosis.

TUBERCULOSIS AND THE VETERANS ADMINISTRATION

Reports were received directly from veterans hospitals of cases of tuberculosis giving a place of residence in New Jersey who were admitted to, discharged from or left such hospitals without permission. Veterans reported as leaving these hospitals were referred to local agencies for follow-up. Reports returned during the year ending June 30, 1947, show that of the number referred out during the year and the number previously referred but not reported upon, 19 were attending a chest clinic in New Jersey; 16 were admitted to a hospital in this State; five re-entered a hospital of the Veterans Administration; 22 were under the professional care of their own physician; three were reported as deceased. Ten were not located and 19 were still under investigation at the end of the year.

From the Veterans Administration there were also received the names of 268 persons listed as members of the immediate families of tuberculous veterans treated at veterans hospitals. These were also referred to local agencies to be visited and urged to have chest examinations. At the end of the year a summary of the results of the follow-up of these 268 persons, together with a group still under investigation at the end of the previous fiscal year, showed none to have been found to have active tuberculosis, although four were recorded as having arrested tuberculosis. Five were recorded as showing other chest pathology; in 161 no chest pathology was found; 18 were not located; exposure in 30 instances was found to have been very remote, while 74 either refused or found it impractical to have such an examination.

CAMP INSPECTIONS

Recreational summer camps in New Jersey are located chiefly in rural areas in townships in which the personnel of the local health departments is very limited. Parents therefore look to the State Department of Health for some assurance that basic sanitary facilities at such camps are reasonably safe. During the year ending June 30, 1947, employees assigned to the Bureau inspected 150 such camps at many of which one or more re-inspections were made during the same camping season.

INSPECTION OF FOOD VENDING PLACES

During the year inspection work in food vending places along highways in rural areas and in the vicinity of Fort Dix and Camp Kilmer was continued to the extent time and limited personnel made it possible. A total of 6,295 inspections were made at 1,023 such establishments. On alternate weeks a limited number of swabs was collected from eating and drinking utensils in public places in the Fort Dix and Camp Kilmer areas, and delivered to the State laboratory for bacteriological counts as a check of cleansing methods.

PRIVATE WATER SUPPLIES

The results of all laboratory tests on samples from private and semi-public water supplies, except pay samples, are referred to this Bureau for interpretation and reporting to the proper official. Many of these samples are collected by employees in the Bureau but others come from local health officials or some other agency. In most cases, the report is made to the local board of health having jurisdiction, with copies to other officials concerned in the matter.

In the year under review, 1,132 such reports were sent, each containing the results of the tests, an interpretation of their public health significance and, if the water proved to be unsafe, a request for a report on action taken by the local board. Seven hundred sixty-three or 67% of the 1,132 supplies were found to be safe, 77 or 6% were of doubtful quality, and 292 or 25% were reported unsafe for drinking and household use.

LOCAL BOARDS OF HEALTH

Data on forms supplied local boards of health for making an annual report to the State Health Department were tabulated and studied. These reports show that for the 1946 calendar year, 81 local health departments employed 51 licensed health officers engaged on a full-time basis; 70 local boards employed 59 licensed health officers engaged in public health work on a part-

time basis. The local health boards in the State also reported employing either on a full- or part-time basis 266 licensed sanitary or food inspectors and 139 licensed plumbing inspectors.

The total amount of funds available to local health boards in the State in 1946 for all purposes was reported as \$3,702,423.47. In a few municipalities the appropriations made for the local board of health included a special allotment for the maintenance of a contagious disease hospital and also in some few municipalities part of the funds for the use of the local health department was earmarked for garbage disposal. Excluding these two items there remained for the use of the local boards a total of \$3,480,455.69. Based upon an estimated population as of July 1, 1946, of 4,304,261, the total per capita amount available to all boards of health in the State for the year was \$0.83.

The total amount reported as expended by the local health boards in the State in 1946, less any amount expended for hospital maintenance and garbage disposal, is \$3,340,557.57, a per capita amount of \$0.776. In the various counties the per capita amount expended ranged from \$0.16 per capita in Hunterdon County to \$1.72 per capita in the County of Essex. The per capita amount expended by boards of health in all municipalities of 50,000 population or over was about \$1.24, while in incorporated municipalities of 2,000 or less the per capita amount was about \$0.34.

SUMMARY OF OTHER WORK OF THE BUREAU

Services rendered and work performed by the Bureau during the fiscal year included other activities not specifically referred to above. Some of these are summarized below:

No. of conferences with local health officials on questions pertaining to public health	5,585
No. of conferences with persons other than local health officials	9,509
No. of meetings of local boards of health attended	63
No. of person-attendance at other meetings	360
No. of lectures given in courses for health officials	81
No. of other talks or lectures given or papers read	55
No. of persons given immunizing treatments or aid given in such treatments..	667
No. of specimens collected from humans either by employees of the Bureau or with their aid to be examined for pathogenic bacteria	167
No. of water samples collected for laboratory examination	752
No. of other specimens and samples collected for laboratory examination	296
No. of instances in which aid was given in diagnosis of suspected cases of communicable diseases	7

REPORTED CASES AND DEATHS, CASE AND DEATH RATES FOR CERTAIN REPORTABLE DISEASES FOR 1946

DISEASE	Cases	Cases per 100,000 Pop.	Deaths	Deaths per 100,000 Pop.	Per Cent Fatality
Chickenpox	16,329	384.01	2	0.04	0.01
Diphtheria	249	5.78	13	0.30	5.22
Influenza	407	9.45	102	2.37	25.06
Pneumonia	4,239	98.48	1,438	33.41	31.74
Menigitis, Epidemic cerebrospinal	184	4.27	40	0.93	21.74
Measles	56,421	1310.81	27	0.62	0.04
German measles	10,175	236.39	0	.....	.....
Poliomyelitis, acute anterior	257	5.97	0	.....	.....
Scarlet fever	4,231	98.29	24	0.55	9.34
Rocky Mountain spotted fever	17	0.39	5	0.11	0.12
Tuberculosis	3,618	84.06	2	0.04	11.76
Typhoid fever	58	1.34	1,643	38.17	45.41
Whooping cough	7,040	163.56	3	0.07	5.17
			27	0.62	0.38

CASES AND DEATHS FROM OTHER REPORTABLE DISEASES FOR 1946

DISEASE	Cases	Deaths	DISEASE	Cases	Deaths
Anthrax	4	1	Rabies	2	2
Dysentery, amoebic	39	13	Smallpox	2	0
Bacillary	19	0	Tetanus	8	8
Unspecified	43	2	Trachoma	2	1
Encephalitis, lethargic	8	24	Trichinosis	19	1
Malaria	981	2	Tularemia	0	0
Mumps	9,209	1	Typhus Fever	3	1
Ophthalmia, neonatorum	13	0	Undulant Fever	56	1
Paratyphoid fever	30	0			

DEPARTMENT OF HEALTH

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1946

COUNTIES	Anthrax	Chickenspox	Diphtheria	Dysentery	Enteric febrile	Influenza	Malaria	Measles	German Measles	Menstrual Epidemic	Cerebrospinal	Mumps	Ophthalmia Neonatorum	Paratyphoid Fever	Pneumonia	Acute Anterior Polyneuritis
Atlantic	0	180	7	1	0	28	20	270	42	8	8	71	0	0	88	0
Bergen	0	3,878	6	3	0	9	9	2,625	707	13	13	2,015	0	0	168	41
Burlington	0	313	7	0	0	74	6	1,002	99	4	4	64	1	1	112	2
Camden	0	181	4	0	0	11	4	2,094	85	16	16	1,128	2	0	107	9
Cape May	0	83	1	0	0	10	4	274	46	1	1	78	0	0	0	0
Cumberland	0	106	0	0	0	8	8	1,007	21	2	2	23	0	0	43	0
Essex	0	10	0	0	0	9	9	21,065	4,116	90	90	2,723	12	3	1,810	46
Gloucester	0	113	4	0	0	6	6	2,833	214	28	28	527	1	3	108	20
Hudson	0	970	46	13	2	42	55	2,833	314	28	1	18	0	0	21	4
Hunterdon	0	48	2	0	0	0	0	377	10	1	1	16	0	0	21	4
Mercer	0	982	0	1	1	28	44	1,990	110	3	3	61	1	1	262	7
Middlesex	0	507	23	1	0	2	20	2,814	169	10	10	84	1	1	31	3
Monmouth	0	632	0	0	1	19	11	3,742	227	9	9	171	0	1	110	33
Morris	0	409	3	2	0	4	10	1,789	674	2	2	281	1	1	62	10
Ocean	0	118	1	0	0	4	1	173	10	0	0	10	0	0	63	6
Passaic	0	1,107	10	0	0	33	32	1,037	237	1	1	400	0	4	23	0
Salmon	0	132	4	0	0	1	1	205	12	3	3	302	0	0	2	2
Somerset	1	161	4	2	0	1	11	1,310	214	1	1	120	0	0	68	0
Sussex	0	10	0	0	0	1	1	1,000	10	0	0	10	0	0	0	0
Union	0	2,872	0	1	0	22	34	9,235	2,710	15	15	731	0	0	200	10
Warren	0	13	7	0	0	0	2	263	25	4	4	7	0	1	17	0
State Institutions	0	35	1	33	0	3	0	30	61	0	0	3	0	0	43	0
Military posts	0	20	40	44	0	3	503	238	210	0	0	213	0	0	730	0
State total	4	16,320	249	100	3	407	931	94,421	10,175	184	0,200	18	18	30	4,230	237

BUREAU OF LOCAL HEALTH SERVICES

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1946—(Continued)

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Typhemia	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic	0	1	48	0	1	0	0	115	0	0	0	0	73
Bergen	0	0	42	0	1	0	0	201	0	13	0	2	1,000
Burlington	0	0	30	0	3	0	0	61	0	0	0	2	201
Camden	0	0	19	0	3	0	0	182	0	0	0	0	313
Cape May	0	1	13	0	2	0	0	28	0	0	0	0	30
Cumberland	0	3	46	0	3	0	0	42	0	3	0	3	1,031
Essex	2	3	1,153	0	26	0	0	708	0	0	0	0	2,101
Gloucester	0	3	53	0	4	0	0	85	0	0	0	0	313
Hudson	0	0	660	0	44	0	0	976	0	7	0	2	426
Hunterdon	0	0	24	0	0	0	0	25	0	1	0	1	6
Mercer	0	0	200	1	0	0	0	0	0	0	0	0	0
Morris	0	1	98	0	3	0	0	204	0	4	0	3	225
Monmouth	0	1	94	0	0	0	0	154	0	0	0	0	322
Morris	0	1	94	0	0	0	0	175	0	0	0	0	186
Ocean	0	2	43	0	4	0	0	20	0	1	0	0	233
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	33
Salem	0	0	310	0	4	1	0	107	0	1	0	0	404
Somerset	0	0	28	0	0	0	0	0	0	1	0	2	20
Sussex	0	0	60	0	1	0	0	50	0	1	0	4	48
Warren	0	0	890	0	14	0	0	14	0	1	0	7	159
Warren	0	0	85	0	1	0	0	189	0	1	0	0	922
State Institutions	0	0	6	0	8	0	0	36	0	1	0	2	17
Military posts	0	1	170	0	0	0	0	123	0	0	0	1	9
State total	2	17	4,231	2	142	8	10	3,613	0	68	3	66	7,040

REPORTED CASES OF DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	5	1	0	0	0	1	0	0	0	1	1	1	1
1 year	13	2	0	0	3	5	0	0	1	0	1	0	1
2 years	15	2	2	1	1	5	9	0	0	1	0	2	1
3 years	16	3	1	0	3	2	0	1	3	1	1	2	2
4 years	16	0	0	3	0	0	1	2	3	1	1	4	1
Under 5 years	53	8	3	4	7	13	1	3	5	2	4	9	6
5 to 9 years	59	3	4	2	7	5	9	4	3	2	5	7	8
10 to 14 years	36	2	2	1	2	5	4	7	2	0	3	4	4
15 to 19 years	28	3	0	3	2	3	1	0	0	0	7	2	1
20 to 24 years	42	5	0	4	12	5	2	0	2	4	0	3	5
25 to 34 years	11	3	2	0	0	1	1	0	1	0	0	2	1
35 to 44 years	8	0	1	0	0	1	0	0	0	3	0	2	1
45 to 54 years	1	0	0	0	0	0	0	0	0	0	0	0	1
55 to 64 years	1	0	0	0	1	0	0	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	249	24	12	14	31	33	19	14	17	8	22	27	28

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	3	0	2	0	5	0
1 year	10	1	3	0	13	1
2 years	12	1	3	0	15	1
3 years	7	0	9	4	16	4
4 years	12	0	4	0	16	0
Under 5 years	44	2	21	4	65	6
5 to 9 years	31	1	28	1	59	2
10 to 14 years	20	0	16	2	36	2
15 to 19 years	20	1	6	0	26	1
20 to 24 years	32	1	10	0	42	1
25 to 34 years	6	0	5	1	11	1
35 to 44 years	3	0	5	0	8	0
45 to 54 years	1	0	1	0	2	0
55 to 64 years	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	157	5	92	8	249	13

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	14	2	1	3	1	0	0	1	0	1	1	2	2
1 year	11	1	1	1	2	0	0	1	1	1	1	1	1
2 years	12	4	2	1	0	3	0	0	0	2	0	0	0
3 years	12	2	2	0	2	0	0	1	1	1	0	3	0
4 years	8	0	0	1	2	0	2	0	0	0	1	0	2
Under 5 years	57	9	6	6	6	5	2	2	3	4	3	6	5
5 to 9 years	23	3	1	4	3	0	2	3	0	3	1	1	0
10 to 14 years	9	2	1	0	2	1	1	0	0	0	1	0	1
15 to 19 years	19	6	0	3	2	1	0	2	0	1	1	1	2
20 to 24 years	14	3	2	1	1	2	1	0	0	0	0	1	4
25 to 34 years	23	3	2	3	5	4	1	2	0	1	1	0	1
35 to 44 years	22	7	1	3	3	2	2	1	1	0	1	1	0
45 to 54 years	10	1	3	0	0	3	1	1	0	0	0	0	1
55 to 64 years	3	0	0	0	0	1	2	0	0	0	0	0	0
65 years and over	3	0	0	0	0	0	0	0	0	0	1	2	0
Age not stated	1	0	1	0	0	0	0	0	0	0	0	0	0
Total	184	36	17	20	22	19	13	12	6	9	9	11	10

REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	9	6	5	1	14	7
1 year	5	5	6	2	11	7
2 years	3	1	9	1	12	2
3 years	9	2	3	0	12	2
4 years	7	2	1	0	8	2
Under 5 years	33	16	24	4	57	20
5 to 9 years	12	0	11	3	23	3
10 to 14 years	5	2	4	1	9	3
15 to 19 years	13	1	1	0	14	0
20 to 24 years	7	0	7	0	14	0
25 to 34 years	12	1	11	1	23	2
35 to 44 years	17	4	5	2	22	6
45 to 54 years	11	2	3	0	14	2
55 to 64 years	1	0	2	3	3	3
65 years and over	1	0	2	0	3	0
Age not stated	0	0	1	0	1	0
Total	110	28	74	14	184	40

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	337	54	24	35	36	32	20	16	8	15	13	40	44
1 year	150	17	16	20	18	22	15	4	7	5	8	2	16
2 years	113	23	7	7	11	17	8	2	1	6	4	14	13
3 years	117	12	12	12	17	23	4	2	4	8	5	7	11
4 years	60	8	5	6	6	8	6	1	1	1	5	5	8
Under 5 years	777	114	64	80	88	102	53	25	21	38	32	68	92
5 to 9 years	223	36	15	18	26	24	15	7	10	18	22	18	21
10 to 14 years	121	23	16	13	10	7	3	8	5	6	6	7	17
15 to 19 years	362	49	33	33	26	16	14	15	35	31	86	53	53
20 to 24 years	322	59	37	48	26	24	17	16	13	13	21	26	22
25 to 34 years	434	110	73	55	37	24	25	26	16	14	16	29	29
35 to 44 years	346	91	38	31	28	13	10	15	15	20	13	35	35
45 to 54 years	405	85	76	43	27	30	14	13	14	21	16	27	36
55 to 64 years	440	113	52	40	32	33	13	14	21	22	23	25	40
65 years and over	775	174	90	69	59	54	27	30	29	53	50	58	82
Age not stated	12	2	1	2	0	1	0	3	0	1	1	0	1
Total	4289	859	495	436	362	342	194	166	162	236	250	309	428

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	192	138	145	105	337	243
1 year	81	19	69	16	150	35
2 years	61	3	52	11	113	14
3 years	67	2	50	1	117	3
4 years	85	2	25	4	110	6
Under 5 years	436	164	341	137	777	301
5 to 9 years	111	6	114	5	225	11
10 to 14 years	57	3	68	5	125	8
15 to 19 years	317	12	64	3	381	15
20 to 24 years	254	8	68	12	322	20
25 to 34 years	300	18	154	17	454	35
35 to 44 years	189	43	147	36	336	84
45 to 54 years	256	101	149	43	405	154
55 to 64 years	267	139	173	62	440	201
65 years and over	887	298	888	311	1775	609
Age not stated	10	0	2	0	12	0
Total	2594	797	1645	641	4239	1438

REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	5	0	0	0	0	0	0	2	0	2	1	0	0
1 year	10	1	0	0	0	0	1	2	2	1	0	2	1
2 years	12	0	0	1	0	0	0	1	5	0	3	1	1
3 years	13	0	0	0	1	0	0	1	2	1	7	0	0
4 years	13	0	0	0	0	0	1	2	3	1	4	2	0
Under 5 years	55	1	0	1	1	0	3	6	14	5	16	6	2
5 to 9 years	81	0	0	0	0	1	3	8	28	20	14	3	4
10 to 14 years	56	0	1	0	0	2	8	20	11	6	5	3	0
15 to 19 years	35	0	0	0	0	2	7	8	8	7	3	0	0
20 to 24 years	16	1	1	0	0	1	2	5	2	3	1	0	0
25 to 34 years	12	0	0	0	1	0	0	2	4	1	2	1	0
35 to 44 years	2	0	0	0	0	0	0	0	0	0	1	0	0
45 to 54 years	0	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	0	0	0	0	0	0	0	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	277	3	2	1	2	1	11	33	79	45	48	20	9

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	1	0	4	0	5	0
1 year	5	1	5	1	10	1
2 years	5	0	7	0	12	0
3 years	6	1	7	1	13	2
4 years	11	1	4	1	15	2
Under 5 years	23	2	27	3	55	5
5 to 9 years	53	2	28	2	81	4
10 to 14 years	33	2	23	1	56	3
15 to 19 years	20	2	15	2	35	4
20 to 24 years	7	2	9	1	16	3
25 to 34 years	0	0	2	0	2	0
35 to 44 years	0	0	0	0	0	0
45 to 54 years	0	0	0	0	0	0
55 to 64 years	0	0	0	1	0	1
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	147	11	110	13	257	24

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	16	0	2	3	1	4	2	0	0	0	1	2	1
1 year	71	8	7	8	12	10	3	1	4	1	6	5	6
2 years	163	21	14	28	26	18	18	8	7	4	4	7	13
3 years	313	23	33	34	49	48	33	16	6	4	10	19	27
4 years	352	26	41	37	69	48	26	17	12	13	15	14	32
Under 5 years	915	80	97	110	157	128	82	37	20	24	45	47	79
5 to 9 years	1972	174	196	251	309	319	184	47	27	48	107	137	179
10 to 14 years	708	74	77	116	122	131	58	12	10	14	22	26	46
15 to 19 years	336	32	52	62	65	68	18	3	5	0	12	5	14
20 to 24 years	117	11	15	14	22	16	11	6	3	3	5	5	6
25 to 34 years	116	14	22	18	22	9	11	4	2	1	3	4	6
35 to 44 years	88	4	7	7	7	9	3	1	0	2	0	2	2
45 to 54 years	17	1	0	4	2	4	1	2	1	0	0	0	0
55 to 64 years	7	0	1	0	4	0	1	0	1	0	0	0	0
65 years and over	2	1	0	0	0	1	0	0	0	0	0	0	0
Age not stated	3	0	1	1	0	0	0	0	0	0	0	1	0
Total	4231	391	463	583	709	679	369	112	80	90	196	225	334

REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	10	0	6	0	16	0
1 year	32	0	39	0	71	0
2 years	35	0	78	0	163	0
3 years	134	0	129	0	313	0
4 years	189	0	163	0	352	0
Under 5 years	500	0	415	0	915	0
5 to 9 years	851	0	891	0	1972	0
10 to 14 years	355	1	353	0	708	1
15 to 19 years	225	0	111	0	336	0
20 to 24 years	62	0	55	1	117	1
25 to 34 years	53	1	63	2	116	3
35 to 44 years	10	0	19	0	38	0
45 to 54 years	7	0	10	0	17	0
55 to 64 years	3	0	4	0	7	0
65 years and over	0	0	2	0	2	0
Age not stated	1	0	2	0	3	0
Total	2206	2	2025	3	4231	5

REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	8	0	2	1	0	1	3	0	0	0	0	0	0
1 year	15	4	1	2	0	1	1	1	3	0	1	1	1
2 years	16	3	0	0	1	2	0	3	4	1	0	1	1
3 years	16	0	2	0	1	1	2	4	1	0	4	1	0
4 years	12	3	0	1	0	2	2	1	1	2	0	0	0
Under 5 years	67	10	5	4	2	7	8	9	9	3	4	2	4
5 to 9 years	60	2	4	4	7	3	6	6	4	7	1	11	5
10 to 14 years	69	3	7	9	8	10	3	2	7	5	2	6	6
15 to 19 years	193	23	16	16	23	12	11	13	13	19	17	17	17
20 to 24 years	532	55	61	49	44	41	39	37	46	36	43	51	33
25 to 34 years	539	48	54	47	38	37	46	53	56	42	56	42	42
35 to 44 years	818	102	105	71	88	75	79	73	79	59	53	56	42
45 to 54 years	418	60	53	50	47	45	56	42	41	39	33	38	35
55 to 64 years	460	38	40	46	32	52	51	43	48	41	38	32	32
65 years and over	296	23	24	32	19	28	26	41	52	37	40	42	28
Age not stated	2	0	0	1	0	0	1	0	0	0	0	0	0
Total	3619	366	369	327	303	303	325	304	305	269	250	260	237

REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	2	3	6	4	8	7
1 year	10	4	5	6	15	9
2 years	6	3	10	6	16	10
3 years	6	3	10	2	16	5
4 years	5	2	7	0	12	2
Under 5 years	30	13	37	18	67	33
5 to 9 years	30	3	30	6	60	9
10 to 14 years	34	3	37	5	69	10
15 to 19 years	97	18	96	35	193	53
20 to 24 years	304	45	228	71	532	116
25 to 34 years	303	115	379	142	682	260
35 to 44 years	348	203	452	191	800	394
45 to 54 years	395	245	519	217	914	462
55 to 64 years	373	247	87	52	460	299
65 years and over	206	150	90	52	296	202
Age not stated	2	0	0	0	2	0
Total	2322	1047	1296	596	3618	1643

REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	1	1	0	0	0	0	0	0	0	0	0	0	0
1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years	2	1	0	1	0	0	0	0	0	0	0	0	0
Under 5 years	3	2	0	1	0	0	0	0	0	0	0	0	0
5 to 9 years	7	1	0	0	1	1	1	1	1	1	0	0	0
10 to 14 years	9	0	0	1	0	1	0	2	0	5	0	1	1
15 to 19 years	6	0	0	0	1	0	0	2	0	2	0	0	0
20 to 24 years	4	1	0	0	0	0	1	0	0	1	1	0	0
25 to 34 years	12	1	1	1	3	0	0	1	2	3	0	0	0
35 to 44 years	8	0	0	0	0	1	2	0	1	3	1	0	0
45 to 54 years	6	1	1	1	0	0	0	0	2	0	0	1	1
55 to 64 years	2	0	0	0	0	0	0	0	1	1	0	0	0
65 years and over	1	0	0	0	0	0	0	0	1	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	58	6	2	4	5	4	4	4	5	16	5	1	2

REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	1	0	1	0
1 year	0	0	0	0	0	0
2 years	0	0	0	0	0	0
3 years	0	0	0	0	0	0
4 years	0	0	2	0	2	0
Under 5 years	0	0	3	0	3	0
5 to 9 years	2	0	5	0	7	0
10 to 14 years	7	0	2	0	9	0
15 to 19 years	2	0	4	0	6	0
20 to 24 years	1	0	3	0	4	0
25 to 34 years	6	1	6	0	12	1
35 to 44 years	5	1	3	0	8	1
45 to 54 years	4	1	2	0	6	1
55 to 64 years	1	0	1	0	2	0
65 years and over	1	0	0	0	1	0
Age not stated	0	0	0	0	0	0
Total	29	3	29	0	58	3

REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	515	46	88	48	33	30	49	53	52	35	38	39	45
1 year	499	52	38	43	38	43	43	52	47	41	26	29	47
2 years	683	54	42	63	48	53	60	77	71	52	54	57	54
3 years	851	55	47	67	70	72	73	102	91	79	68	64	63
4 years	733	52	36	59	47	57	51	66	80	87	70	54	74
Under 5 years	3281	259	201	280	236	264	276	350	341	294	236	241	283
5 to 9 years	3175	310	227	338	238	310	234	250	196	251	233	289	279
10 to 14 years	489	40	24	55	61	45	26	40	23	30	23	29	33
15 to 19 years	49	3	6	5	3	5	3	4	2	3	1	2	2
20 to 24 years	16	2	0	1	1	3	1	1	5	0	0	1	1
25 to 34 years	40	1	1	2	2	6	4	9	8	2	2	1	2
35 to 44 years	23	2	1	4	3	1	1	2	6	0	1	1	0
45 to 54 years	5	0	0	1	2	0	0	1	0	0	0	0	0
55 to 64 years	4	0	0	0	0	1	0	0	0	0	1	1	1
65 years and over	3	0	0	1	0	0	0	0	2	0	0	0	0
Age not stated	5	0	0	1	0	2	0	0	1	0	0	0	1
Total	7940	624	468	708	547	639	548	655	586	580	519	564	602

REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1946, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	272	8	243	10	515	18
1 year	232	1	268	0	499	1
2 years	318	1	363	1	683	2
3 years	396	0	455	0	851	0
4 years	358	1	375	0	733	1
Under 5 years	1577	11	1704	11	3281	22
5 to 9 years	1522	0	1633	2	3175	2
10 to 14 years	204	0	285	0	489	0
15 to 19 years	21	0	28	0	49	0
20 to 24 years	6	0	10	0	16	0
25 to 34 years	8	0	32	1	40	1
35 to 44 years	10	0	18	0	28	0
45 to 54 years	2	0	3	0	5	0
55 to 64 years	1	1	3	0	4	1
65 years and over	0	1	3	0	3	1
Age not stated	3	0	2	0	5	0
Total	2254	13	3686	14	7040	27

Report of the Bureau of Preventable Diseases

July 1, 1946-June 30, 1947

By ROSCOE P. KANDLE, M.D., *Director*

The Bureau of Preventable Diseases, composed of the Divisions of Adult and Industrial Health, Cancer Control, Dental Health, Maternal and Child Health, Tuberculosis Control and Venereal Disease Control, the Rabies Control Program and the Negro Health Program, the advisory public health nurse and the nutritionist, has become an increasingly active unit during this fiscal year.

Leonid S. Snegireff, the first Director, resigned July 16, 1946. Roscoe P. Kandle, M.D., M.P.H., was appointed Director October 16, 1946. During the interval between Directors, the Bureau did not operate as such. New quarters were secured at 19 West State Street, the Bureau was reorganized, clerical assistance was secured for the first time and the Division of Cancer Control was added, beginning October, 1946. A well qualified nutritionist was added to the staff on January 1, 1947.

Regular staff meetings of the division chiefs and program heads were held, further coordination and integration of the programs of the units of the Bureau were secured and better relationships developed with the other bureaus of the Department and other agencies. Some evaluation of the programs of the divisions was begun, mostly informal in nature, although a formal study of the Division of Dental Health was made.

The matter of quarters was significant. While separated from the remainder of the Department and adding another to the many locations in which the units of the Department are to be found, nevertheless adequate space was obtained. Besides the Bureau administrative offices, cancer control, the nutritionist, the advisory public health nurse and the laboratory of the Division of Adult and Industrial Health were housed. A testing laboratory and assembly station for the mobile X-ray equipment of the Division of Tuberculosis was developed. More important, a departmental conference room was developed with the aid and advice of the experts in the eye conservation program of the Division of Adult and Industrial Health. This

became a very useful room, as well as a laboratory and demonstration of good practice in lighting.

A clerical pool was established to provide clerical services for all of the units housed together. This method provided clerical service to a number of very active programs with a minimum staff.

Another significant development was the attempt to inaugurate competent statistical service for the Department. The plans were to develop a Division of Statistical Research. The opportunity to develop such a service came by means of the need of it by the Division of Cancer Control. Cancer control funds were used and two statistically trained personnel were appointed in January, 1947. They were Neal W. Chilton, D.D.S., M.P.H., and Samuel Strickland, A.B., and were housed with the Bureau and functioned under the guidance and direction of the Director of the Bureau. Demands for the service were almost immediate and increased rapidly and were provided for most of the units of the Bureau, as well as the Migrant Program and the Department as a whole. Several conferences were held to study and plan regarding the statistical services of the entire Department and for providing mechanical equipment for tabulating, sorting, etc. Plans for such equipment were developed in close cooperation with the Bureau of Vital Statistics.

A series of conferences was sponsored by the Bureau between the Bureau of Local Health Services, the Division of Tuberculosis Control and the advisory public health nurse, with the cooperation of the Division of Cancer Control, which resulted in outlining a public health nursing program in tuberculosis. A consultant public health nurse in tuberculosis, Mrs. Sara M. Errickson, was obtained to initiate the program.

The Director of the Bureau became chairman of the Board of Examiners of Health Officers and Inspectors. A great deal of work was carried on by the Bureau office in making a study of the licensing procedure and developing new examination material and methods.

NUTRITIONIST

A well qualified, public health trained nutritionist, Miss Elizabeth Ann Porter, was added to the Bureau staff January 1, 1947. The program was planned in the following terms:

1. To serve as a coordinating and integrating factor for all nutrition activities in New Jersey, to better meet the needs of the people.
2. Attempt to devise a method for the evaluation of local nutrition programs.
3. To promote dietary surveys to determine the real nutritional status and needs of the people.

4. When needs are determined, to assist in the development of local means for the promotion of better nutrition status in selected areas, coordinating community facilities and personnel.

5. To assist in the development of special nutrition services in programs, such as rheumatic fever control, where the need is indicated.

6. To give nutrition staff education to public health nurses or other workers within the Health Department or to allied groups requesting such a service within the limits of personnel.

7. To make available reliable nutrition health education materials and to develop such materials as they are needed.

A very successful series of five meetings was held for the public health nurse supervisors of the Division of Maternal and Child Health and a study of eating habits was made in Camden County in cooperation with the Division of Dental Health.

ADVISORY PUBLIC HEALTH NURSE

The advisory public health nurse, Mrs. Gertrude L. McLaughlin, and her assistant, Mrs. Dorothy Van Benthuyzen, conducted a fact-finding survey regarding the distribution, training, etc., of public health nurses in the State and tabulated the data,* by which the roster of New Jersey Public Health Nurses is maintained. A great many inquiries throughout the year are answered using these data. Aid in recruitment of public health nurses for the Department was carried on. Field service was provided many local communities regarding their public health nursing problems.

* N. J. State Department of Health: *Public Health News*, Vol. 28, No. 12, September 1947.

Report of the Division of Adult and Industrial Health

July 1, 1946-June 30, 1947

By J. C. RADCLIFFE, Chief

The fiscal year ending June 30, 1947, was marked by a continued advance in industrial health activities as promoted by this Division, and the inauguration of a more general adult health program applied initially to industry.

This adult health program was developed as a result of action by the Board of Health on September 10, 1946, when the name of the Division was changed from Industrial Health to Adult and Industrial Health.

The personnel of the Division was increased from 14 to 18 during the year. This increase in personnel has contributed materially to the expanded activities of the office, especially in the adult health field.

COVERAGE OF INDUSTRY OF STATE

The following table shows the type of industry served:

TABLE I—SERVICE TO INDUSTRIAL PLANTS

Industry Group	No. of Plants Visited	No. of Employees in Plants	No. of Projects Handled	No. of Visits by Staff
Chemical and allied products	70	55,161	82	96
Apparel and other finished textiles	37	6,846	40	43
Electrical machinery	34	57,824	53	61
Iron and steel (except machinery)	30	19,535	32	35
Machinery (except electrical)	28	9,656	32	36
Nonferrous metals and their products	24	10,587	26	26
Paper, printing and allied industries	24	3,895	26	27
Stone, clay and glass products	20	9,197	24	30
Textile mill products and fibres	17	2,443	18	20
Food and kindred products	15	8,793	17	19
Lumber and timber basic products	13	834	14	15
Transportation equipment	8	19,900	10	15
Products of petroleum and oil	6	8,046	9	11
Rubber products	6	4,569	7	8
Miscellaneous industries	21	1,051	22	22
All Industry Groups	353	218,337	412	464

The 353 plants visited this year show an increase of 47% over the number contacted in the previous year. Of the 353 plants visited, 286, or 81%, employed less than 500 workers, while 201, or 57%, employed less than 100 workers. These figures emphasize the activities of the Division in the smaller, rather than the larger plants. It has frequently been demonstrated that the smaller plants require more assistance from outside agencies in providing adequate industrial health programs.

Of the 464 staff visits to plants, 397, or 85%, were requested and 15% self-initiated. This was an increase in requests over last year when 80% of the plant visits were requested. The figure for 1944-1945 was 54%, for 1943-1944 it was 48%, and for 1942-1943 only 25%. The steady increase in request visits to industry is important, as it indicates that the consultation services of the Division are in increasing demand.

Services offered by the Division are of two general types: (1) in-plant environmental engineering (assistance with plant lighting, ventilation, control of noise, dust, fumes, gases, and the like), and (2) medical and nursing assistance and consultation on plant health problems and activities. Of the 412 projects handled, 293 were in-plant environmental engineering projects (71% of the total services), and 119 were medical-nursing projects (29% of the total services). Due to an incomplete medical-nursing staff, and the field training of certain of this personnel, the medical-nursing activities were limited.

In addition to classifying services according to their character (engineering and medical), they may be grouped according to their objectives, such as whether they were complete surveys of a plant, whether they were follow-ups on recommendations made previously, whether they were investigations of reported occupational diseases, or whether they studied specific industrial health problems. During the 412 projects, 265 surveys were conducted, 18 follow-up visits were made, seven reported occupational diseases were investigated, and 122 special problems were handled.

Of the 353 different plants visited, 224, or 63%, had never been visited by the Division before. The other 129, amounting to 37%, had received Division services during previous years. The large increase in new plants serviced indicates that the Division acquainted a large number of industries with our program, yet handled the problems of many plants well familiar with the services of this Division.

After a plant survey, consultation or occupational disease investigation, a confirming report is forwarded to the plant containing specific recommendations as indicated. A total of 241 such recommendations were made during the fiscal year. The follow-up visits made indicated that 45 of these recommendations were completed. This is not, however, a true indication of con-

ditions corrected through such recommendations because the follow-up visits made only partially covered the plants where recommendations had been offered. This phase of the Division's activities should be expanded, but the requests for services limit the time that can be given to this work.

The basis for a majority of the recommendations made during the year are the results of the analysis of atmospheric samples, raw materials handled, urine and blood samples collected by the engineers, physicians and nurses at work locations or from individuals working at operations where health hazards exist. The following table indicates the number of analyses made, both in the laboratory and in the field according to the suspected toxic material:

TABLE II—LABORATORY ANALYSES AND FIELD DETERMINATIONS

Ventilation readings	130	Carbon	12
Illumination	112	Hydrogen sulphide	12
Solvents	96	Tar	12
Mercury	86	Hydrogen fluoride	9
Dust counts	79	Cadmium	9
Lead	72	Toluol	9
Relative humidity	58	Oil mist	8
Radioactive rays	55	Styrene	8
Carbon monoxide	45	Hydrogen cyanide	7
Benzol	36	Chlorine	7
Solids	20	Acetic acid	7
Sulfur dioxide	16	Iron oxide	7
Chlorides	14	Sulphuric acid	7
Sulphates	14	Xylol	6
Manganese	13	Chromic acid	5
Ammonia	13	Oxides of nitrogen	5
Free silica	13	Acrolein	3
Ash	12	Zinc	3
Chlorinated hydrocarbons	12	Miscellaneous	7
		Total	1,039

This shows an increase of 2% over last year's figures. This is interesting considering that the laboratory was not in use for a four-month period due to moving difficulties.

During the year, the library of the Division has been called on frequently by industrial physicians and corporations for information regarding the toxicity of certain substances. Requests for this type of information numbered 134 during the past year, which indicates the realization of industry that information is needed on this subject, and also that the library of this Division is adequate for such demands.

SPECIAL PROJECTS

Each year in addition to plant surveys, consultations and recommendations mentioned above, there are special projects of a nonroutine nature handled. A few of these are described in the following:

Industrial Sight Conservation Program

In the development of the adult health program of this office, an Industrial Sight Conservation Program has been inaugurated. This program is the only one of its type in the nation and includes the ophthalmic examination of workers for near and distant vision, work distance vision, color and depth perception, and the indication of major eye defects. At present, any major eye defects uncovered will be referred to qualified private individuals for their study. Along with this examination program is included the study and recommendations for better illumination, color conditioning and eye safety. The present program has the cooperation of other State and national official and voluntary agencies, and the representative professional groups. The program has already been initiated in certain New Jersey industries.

Community-Wide Industrial Surveys

The program of community-wide industrial surveys is continuing with additional requests being received regularly. During the past year, four of these surveys were completed. In all cases this Division, in cooperation with the local health officer, surveys all industries in the specific town, for the purpose of developing techniques for bringing industrial health service to the small factories. Plans are now developing in two of these areas to have the interested physicians and nurses offer on a part-time basis a sound industrial-medical program for the small plants.

Radiation Survey

A newly developed static eliminator employing the ionized rays produced by radium as their principal of operation was introduced into New Jersey industry during the past year. A complete study of all these installations was made with the Geiger-Muller counter and a program of control instituted to eliminate the chance of radium poisoning.

Nursing Survey

A complete mailing survey was made of the number and qualifications of industrial nurses in New Jersey industry. These results showed 489 professional registered nurses doing full-time in-plant industrial nursing and 300 persons doing part- or full-time nursing, personnel or first-aid work whose

qualifications vary from those of a professional registered nurse to those of a trained first-aid attendant. These figures can be compared to those of two years ago, during the war, which showed 400 registered professional nurses doing full-time industrial nursing and 577 persons in the second classification. This increase in full-time registered nurses in industry from a war year to a peace year is most indicative of the excellent development in the field.

Nuisance Complaints

Thirty nuisance complaints regarding aerial pollution were studied by the Division at the request of local health officials. As a result of the studies, 19 of these complaints have been abated through changes in operations or the installation of absorbing systems. Six of the studies are at present being studied by the offending plants and correction is pending. In five others, no action has been taken. This increase in nuisance complaints presages a field of endeavor which during the past year consumed the full time of one employee. If such studies continue to be desired, it would probably be advisable to develop a two- or three-man unit to handle this work more completely, which at present seriously hampers the in-plant activities of the Division.

GENERAL

The promotional activities of this Division were expanded specifically through the monthly publication of a concise, technical *Industrial Health Bulletin*, which was mailed to the individuals and concerns on the Division's mailing list. Most of these bulletins were reprinted in the leading industrial medical journals, and over 5,800 additional copies were supplied as requested by persons other than those included in the mailing list. The mailing list of plants, safety engineers, industrial physicians and nurses was enlarged during the year due to requests and new plant contacts.

Preliminary arrangements were made at several dozen plants for X-ray surveys, later completed by the Division of Tuberculosis Control. The programs of other Divisions, and specifically those of the Division of Dental Health, were promoted at every opportunity.

Fifteen talks were delivered during the year and seven articles were published. One course in industrial hygiene was conducted in cooperation with Rutgers University, and a second course was outlined and developed for the teaching of part-time industrial nursing staffs.

Three large industries were instructed in the development of in-plant industrial hygiene laboratories.

Report of the Division of Cancer Control

For the Fiscal Year 1946-1947

By RAYMOND V. BROKAW, M.D., *Chief*

The Division of Cancer Control was officially established on September 10, 1946, by action of the State Board of Health. The newly appointed Chief of the Division assumed office on October 16, 1946. Headquarters are located at 19 West State Street, Trenton.

The present program of the Division has been designed to include three main objectives of a general state-wide cancer control program: statistical research, professional education, and lay education. The establishment of diagnostic and therapeutic facilities in general hospitals under the auspices of the Medical Society of New Jersey is not duplicated. The problem of medical care for terminal cancer cases is under active consideration of the State Department of Institutions and Agencies. Tissue diagnostic services are provided by pathologists under hospital auspices or in private laboratories.

The most important activity of the Division at present is in the field of professional education. In a joint program with the New Jersey Society of Clinical Pathologists a tumor slide registry, a consulting board of tissue pathologists, a tumor tissue laboratory and a cancer reference library have been established.

TUMOR SLIDE REGISTRY

The tumor slide registry has been set up at Division headquarters in Trenton and is patterned after similar registries maintained at the Army Institute of Pathology in Washington. When organization is completed it will include the collection and filing of cancer case histories, tissue slides, gross tumor specimens, clinical photographs and photomicrographs, outlines of accepted treatment and plans for follow-up of cases.

Several hundred photomicrographic transparencies have been deposited with the tumor registry at Division headquarters on permanent loan for study and teaching purposes. Complete sets of slides reviewed at the annual tumor seminars of the American Society of Clinical Pathologists, together with

stenographic notes of the Proceedings for the years 1937 to 1947, have also been deposited at Division headquarters by the same contributor for similar purposes.

A follow-up service on New Jersey cancer patients is provided by the Division for the adjacent States of New York, Pennsylvania, Connecticut and Maryland.

CONSULTING BOARD OF PATHOLOGISTS

The consulting board of tissue pathologists, appointed by the New Jersey Society of Clinical Pathologists, directs the professional activities of the tumor registry in cooperation with the Division of Cancer Control, and renders a consultation service to pathologists who refer tissues presenting difficult diagnostic problems. Tissues thus submitted are filed as accessions to the tumor slide registry and serve as material for future study at pathological seminars.

TUMOR TISSUE LABORATORY

Space for the tumor tissue laboratory has been provided at Division headquarters in Trenton and equipment is being assembled. This work will include the processing of gross specimens, the preparation of slides with special staining techniques, photomicrography and color photography, and the preparation of tumor pathological material for teaching and scientific exhibit purposes. A tumor histologist with broad experience in these special fields has been employed, and the addition of a pathologist to the staff is contemplated, in accordance with the recommendation of the New Jersey Society of Clinical Pathologists.

CANCER REFERENCE LIBRARY

One hundred volumes comprising the latest texts on cancer and allied subjects, and 12 medical journals, have been purchased as the nucleus of a cancer reference library to be maintained at Division headquarters in Trenton. A cancer reprint file, including more than 1,000 items at present, has also been set up for reference purposes.

CANCER FELLOWSHIPS

Funds have been allocated for the establishment of cancer fellowships, providing a full year's residency for qualified young physicians. One such fellowship is now maintained and others are contemplated.

Preliminary steps have been taken for the adoption of a joint program of professional education with the New Jersey State Dental Society. Tentative plans include the promotion of symposia on oral cancer and maintenance of cancer fellowships for qualified young dentists by the Division.

NURSES' TRAINING

Funds for the post graduate training of qualified young nurses in cancer control have been made available. One graduate public health nurse is now receiving in-service training under this provision. One cancer institute for nurses and social workers has been organized on a county basis by this Division to date, in which members of the local county medical society participated and prominent specialists in cancer education and social service were provided.

STATISTICAL RESEARCH

An analysis of the cancer death certificates filed in the State Bureau of Vital Statistics is now in progress and other studies of cancer mortality are contemplated. A tumor record registry patterned after the Connecticut system has been planned and will be established as soon as qualified personnel can be obtained.

LAY EDUCATION

Lay education in cancer is conducted by the Division of Health Education in cooperation with the Division of Cancer Control. A booklet on cancer for the general reader is in process of preparation by the Division of Cancer Control. Cancer films and exhibit materials for lay groups are available.

CANCER COUNCIL

As a means of discussing mutual problems in the field of cancer control a Public Health Cancer Council has been organized by the Department. The membership of the Council at present includes representatives of 14 professional and civic agencies whose state-wide formal interests include the problems of cancer control.

PROFESSIONAL RELATIONS

In further recognition of mutual interests in the cause of cancer control the Director of the Department of Health serves as a member of the executive committee and the board of trustees of the New Jersey Division of the American Cancer Society. The Chief of the Division of Cancer Control serves as a consultant on the Advisory Cancer Committee of the Medical Society of New Jersey, and as a member of the Consulting Board of Tissue Pathologists of the New Jersey Society of Clinical Pathologists.

Report of the Division of Dental Health

For the Year Ending June 30, 1947

During the fiscal year covered by this report, the Dental Health Division again benefited by an increased budgetary allotment. Since the initiation of the Dental Division, local and State authorities have considered the dental health program worthy of increased funds each year. However, during the next fiscal year (1947-1948), the budget of the Dental Division will be reduced to a total below 1946-1947 amounts.

The present report of the Division's activities, therefore, would seem to represent the attainable peak if present-day concepts of the function of the State continue and if the existing financial resources of the State remain static.

For the fiscal year of 1946-1947, State funds allotted to the Dental Health Division amounted to \$101,017; Federal funds amounted to \$23,233; and local contributions were approximately \$30,000 or a total of \$154,450.

ACCOMPLISHMENTS

As has been stated in previous reports,¹ the Department's dental program revolves around a hub of lay and professional voluntary and official support. The New Jersey State Dental Health Committee, officially designated as the Advisory Committee for the Dental Division, represents State health, State welfare, and State educational agencies, both official and non-official. Also named to this committee are representatives of local and county dental health committees who help to administer the various dental programs of the State Department of Health.

It would seem at first glance that the Dental Division concerns itself mainly with its dental care program for children of low-income families in rural and suburban communities. Actually, the service program and the committees associated with the program contribute to the fulfillment of educational, investigatory and consultative responsibilities.

¹ Wisan, J. M.: "Cooperation Works for Statewide Dental Health," New Jersey Educational Review, 21:80-81 (Nov.) 1947; Wisan, J. M.: "Subsidizing Local Dental Programs," The Welfare Reporter, II:9 (Dec.) 1947.

EDUCATIONAL ACTIVITIES

The educational activities of the Dental Division may be divided into two categories: (a) professional education, and (b) public information.

(a) The Dental Division has conducted in-service courses in dental health education for teachers and nurses. These are accredited courses (two points towards B. S. degree) sponsored by the State Teachers Colleges of New Jersey and Seton Hall College. During the past year, 117 students successfully passed the requirements of this course. Thus, they are equipped to participate in dental health programs in their communities.

Cooperating with the New Jersey Society of Dentistry for Children, three meetings were held in Atlantic City, Asbury Park and Jersey City to present lectures and table clinics on techniques in children's dentistry for private and public health dentists. A special issue of the *New Jersey State Dental Journal* devoted to children's dentistry was published as a means of reviewing latest developments in this important field.

(b) In the field of public health education, county and local dental health committees made marked contributions. Utilizing source units, leaflets and movies published and purchased by the Division, these committees were able to disseminate authentic information. Dentists participating in the treatment program frequently utilized opportunities to present to school administrators, teachers and pupils, information concerning preventive measures. Two field representatives, working in northern and southern counties, motivated dental health education programs in the areas of their jurisdiction. The effectiveness of the field workers' efforts were materially enhanced because of the background of the dental treatment program. The four dental supervisors coordinated the promotion of dental health education programs in their areas.

On the State level, a sub-committee of the New Jersey State Dental Health Committee, called the "State Dental Health Education Committee," has met on a number of occasions in order to re-evaluate the dental health education material available in New Jersey. They have recommended that, in the future, dental health leaflets designed for school health programs, emphasize four important phases of health education in the classroom, namely (a) approaches to the dental health problem, (b) activities selected by children to further dental health education objectives, (c) activities selected by teachers for the same purpose, and (d) outcomes in terms of dental health practices.

Ways of providing information for teachers to carry on dental health educational programs in class rooms are being investigated. The members of this committee have concerned themselves with the problem of motivation for the correction of dental defects among children not eligible for inclusion among so-called low-income programs. Thus far, the solution of this problem

has evaded administrators because of the shortage of dental personnel and the indifference of many parents.

INVESTIGATORY PROGRAMS

The Dental Division continued its studies to compare the dental conditions found among children in the six communities with fluorinated water (1 p.p.m.) and the children residing in areas with non-fluorinated waters (less than 1 p.p.m.). Increasing evidence has been forthcoming to indicate that a communal water supply containing one to two parts per million of fluorine effects more than 40% reduction of the dental caries rate among children born and reared in the area.

Costs of the dental treatment program have been repeatedly studied. The *Journal of the American Dental Association* published the first report.² Since then, it has accepted for publication the Division's study of lost time in a dental care program for children and the Division's study comparing dental conditions among New Jersey children in 1933 with conditions found in 1946-1947. The last-mentioned study indicated that the dental caries susceptibility rate in New Jersey is increasing.

CONSULTATIVE PROGRAMS

Most of the requests for consultative service coming to the Dental Division from local communities were for information to help organize dental health education and dental treatment programs for children. In providing information for educational programs, the collaboration of the State Department of Education, particularly the Division of Physical Safety and Health Education, was invaluable. For treatment programs, the cooperation of the State and component dental societies was necessary. To be sure that the standards for dental treatment programs met the highest professional requirements, a dental health workshop was conducted by the New Jersey State Dental Society. Out of the deliberations of this meeting came recommendations for community dental health programs which could be utilized effectively in advising local communities. The booklet, *A Dental Care Plan for Children*, published by the Department, was again approved by the New Jersey State Dental Society.

Also, in April, 1947, a committee appointed by the State Commissioner of Education published a report which included recommendations for dental programs. The conclusions emanating from such authoritative source made it possible for the staff of the Dental Health Division to provide competent consultative service to local communities.

² Wisan, J. M., Galagan, D. J., and Chilton, N. W.: "Studies in Dental Public Health Administration: I. Cost Analysis of the New Jersey Dental Treatment Program, 1944-1945," *J.A.D.A.*, 34:322-329 (March 1, 1947).

Experiences with the dental care program enable the staff of the Dental Division to provide practical information to local authorities interested in dental care programs for children.

Also as a result of opportunities to study a variety of dental programs (private office, rural and urban clinics, truck mobile clinics, trailer clinics, station wagon transportation), the Division is recommending criteria for evaluating dental treatment programs and for observing trends in dental caries susceptibility among school-age children. The following criteria are recommended for the evaluation of dental treatment programs:

- a. Individual records and periodic reports as recommended by the State Department of Education and the State Department of Health.³
- b. Increase in the percentage of completed cases (all necessary extractions and fillings) from year to year.
- c. Consistent decrease in the extraction of permanent teeth.
- d. Professional supervision of the operations of participating dentists.
- e. Emphasis on preventive treatment for younger children (4 to 10 years) and incremental care thereafter.
- f. Community approach with collaboration of State and local dental societies.
- g. Information as to the number of children obtaining treatment in private offices.

Criteria for measuring trends of caries susceptibility rates:

- a. Dental survey by dentists using mirrors and explorers every five to ten years to obtain following information:
 - (1) DMF rates of age groups 7 to 9; 10 to 12; 13 to 15.
 - (2) Percentage of children requiring treatment (extractions and fillings).
 - (3) Average number of defective teeth per child.
 - (4) Number of lost permanent teeth (previously extracted and teeth requiring extraction) per 100 children in 12 to 14 age group.

DENTAL CARE PROGRAMS FOR CHILDREN

At the present writing (August, 1947), the dental treatment program of the State Department of Health has progressed to the state where children from 188 school districts in 17 counties are provided with necessary extractions, fillings, and prophylaxis. Six mobile units have been assigned to sparsely populated areas. These include two trailers and four auto trucks with complete dental equipment. Three of the mobile units which were built with current funds and assigned to four counties (Cape May, Atlantic, Gloucester and Warren) began functioning after the end of the fiscal year (June 30, 1947). The program also includes 77 private offices and 21 clinics.

³ Instructions, Dental Treatment Program, Division of Dental Health, N. J. State Department of Health, Trenton, N. J., 1947.

One station wagon brings children to private dental offices and one station wagon brings children to a rural dental clinic. Democratic techniques have been utilized for the program as follows:

1. Programs are instituted at the request of local or county administrators after surveying the dental needs of children in their communities and formulating plans for administering the programs.
 2. The first step in establishing a dental program is the organization of a dental health committee made up of representatives of both unofficial and official agencies, such as schools, health departments, parent-teacher groups, the dental society, Red Cross, public health nurses, welfare groups, and the Department of Institutions and Agencies.
 3. Local committees designate administrative policies for their programs.
 4. Local agencies contribute toward the cost of the program.
 5. Members of the New Jersey State Dental Health Committee and representatives of local committees meet annually to share their experiences.
 6. The New Jersey State Dental Society, as well as its component societies, participate in the planning and accept the responsibility of providing adequate personnel for the program.
 7. The chief function of the State Dental Division is to provide technical supervision of the dental services rendered for the program. High standards of dental care are maintained because of this supervisory service. Uniform records are kept to compare and evaluate the various programs.
 8. Each local program is activated by what may be termed "the community approach." Authority is vested not in one agency or one person, but in a committee representing health, welfare and educational resources in the community.
- This policy, when translated into action, indicates that each agency obtains the authority it requires for its activities and for the dental program. For example, the school administrator, who is a member of the dental committee, is responsible for the dental program schedule as it applies to public school children. Since he is an active participant, the school administrator is able to orient the dental program within school functions. The same applies to the parochial schools, the health department, and the parent-teacher association. Moreover, all persons interested in the health of children are made aware of the dental program. They are informed of the facilities for treating children of low-income families and how the treatment is obtained for these children. Thus gaps and overlapping are avoided.
9. Rules for selecting children for treatment are designated by local dental societies and local committees.

10. Funds are obtained from State, county and local fiscal authorities.
11. Reports of achievements and costs are regularly submitted by the Dental Division of the State Department of Health informing each committee of its own accomplishments and the cost of its program.
12. Local and county committees conduct educational programs to improve dental conditions among all children.
13. Policies pertaining to technical procedures are recommended and approved by the New Jersey State Dental Society.
14. Finally, it may be said that the New Jersey dental program is unique in that some administrative responsibilities are accepted by committees representing both official and unofficial health, welfare, and educational agencies.

Treatment reports are presented here to show: (1) attainments of all the county and local programs during the fiscal year 1946-1947, (2) attainments of the State-wide program from July 1, 1940 to June 30, 1947, and (3) attainments of each of the county and local programs from their initiation to June 30, 1947.

<i>Items</i>	BUDGET—1946-1947	<i>State</i>	<i>Federal</i>
Salaries:			
Dr. J. M. Wisan, Chief		\$6,500.00	
Mrs. L. E. Bedwell, Field Representative		2,280.00	
Mrs. O. D. Stone, Dental Aide		1,680.00	
Mr. J. Hutchinson Field Representative		1,920.00	
Miss M. Reading, Clerk-Typist			\$1,320.00
Mrs. M. Neumann, Clerk-Typist			1,123.54
Miss P. Kendall, Senior Clerk-Stenographer			1,954.00
Operating dentists	63,007.00		
Paterson, dentist salaries			7,450.00
North Arlington, dentist salary			3,550.00
Supervisors			3,872.00
Dental Aide			666.64
Laboratory supplies			500.00
Laboratory equipment			750.00
Travel	650.00		1,000.00
Maintenance of trailer	750.00		
Dental health education material	1,000.00		
Stationery and office supplies			225.00
Office equipment			222.50
Printing	375.00		400.00
Mobile dental clinics	22,855.00		
In-service field orientation			200.00
		<u>\$101,017.00</u>	<u>\$23,233.68</u>
State Funds		\$101,017.00	
Federal funds		23,233.68	
Local contributions (approximately)		30,000.00	
Total			\$154,250.68

PERSONNEL

- 1 Chief, Dental Health Division
- 1 Statistical Consultant
- 2 Dental Aides
- 2 Field Representatives
- 1 Senior Clerk-Stenographer
- 2 Clerk-Typists
- 108 Operating Dentists
- 6 Full-time school dentists
- 102 Part-time dentists

REPORT, DENTAL TREATMENT PROGRAM
July 1, 1948, to June 30, 1947

Program	Initiated	Type of Program	Dentist	Communities	Children Treated	Operating Time	Visits	Examination	Perma.	Decid.	Extractions	Fillings	Tempor.	Propylaxis	X-rays	Total Operations	Cases Completed	Percentage of Completions	
Hogson County	1943	P. O.	0	1	136	322	574	655	60	111	625	77	87	120	54	1,063	51	43.2	
North Arlington	1940	Cl.	1	4	436	385	653	762	6	13	437	291	32	108	108	2,945	411	84.2	
Rutherford	1945	Cl.	1	1	69	174	2845	840	14	13	287	21	48	145	7	1,098	173	51.4	
Burlington County	1942	P. O.	0	12	395	287	530	180	96	237	489	74	2	552	492	4,754	402	70.8	
Camden County	1945	P. O.	0	7	567	1,028	2,002	1,182	88	628	2,606	168	340	2	552	4,754	402	70.8	
Camden County	1945	Mo. Cl.	0	1	72	65	117	71	23	193	402	3	4	21	388	0	441	64	
Cape May County	1942	P. O.	11	20	841	678	1,033	200	71	500	910	83	26	48	92	1,866	134	70.3	
Bancroft County	1944	Cl.	4	1	351	730	1,416	523	46	108	1,701	88	106	106	154	2,096	272	86.0	
Municipal	1947	Cl.	1	1	127	167	267	688	40	130	523	248	60	417	461	1,002	288	88.6	
Hartford County	1940	Cl.	1	13	420	454	1,002	688	40	110	918	114	30	70	25	1,347	200	66.0	
Hamilton Township	1946	Cl.	0	1	272	657	1,234	762	80	248	666	240	135	77	275	0	1,518	147	54.0
North Arlington	1942	Tr.	0	6	300	385	653	107	40	336	547	71	34	49	40	1,165	167	35.2	
Mt. Kithie Keep Well C.	1942	Tr.	0	2	102	209	343	140	49	305	33	33	28	263	0	1,107	88	33.4	
Donna	1945	P. O.	14	17	698	1,589	2,848	1,815	115	674	3,074	312	895	111	694	187	6,000	548	74.5
Monmouth County	1941	P. O.	2	1	102	187	828	1,148	11	43	280	20	0	40	170	55	597	28	27.4
Camden County	1945	Cl.	21	36	572	1,478	2,303	5,002	305	652	1,385	122	0	80	46	273	34	33.4	
Morris County	1943	P. O.	5	3	148	348	460	1,288	53	141	674	160	133	15	164	1,803	200	94.7	
Ocean County	1944	P. O.	1	14	112	703	719	2,680	27	101	917	132	414	15	116	120	1,862	70	70.5
Paterson	1945	P. O.	1	1	18	92	141	27	13	28	123	20	0	51	10	12	216	12	16.0
Wanaque	1944	P. O.	1	1	72	180	273	122	11	60	220	0	0	49	0	302	7	35.9	
Union County	1941	Cl.	2	1	896	1,888	3,631	1,170	148	1,110	4,368	276	222	32	1,410	646	7,801	62	44.2
Somerset County	1942	Tr.	1	10	575	919	1,350	2,097	28	335	1,340	92	168	28	672	231	3,400	500	86.0
Union County	1942	P. O.	6	12	233	381	684	216	51	281	832	87	36	17	170	5	1,426	140	56.5
Clarks Township	1943	Cl.	1	1	126	245	780	307	15	90	446	7	16	18	68	30	674	63	23.8
Kenilworth	1945	Cl.	3	1	47	177	824	614	24	10	161	24	29	2	10	1	352	10	48.5
Warren County	1948	Cl.	3	5	28	51	80	24	10	38	90	8	10	1	1	1	107	8	29.5
Totals (17 counties)	.....	.....	108	188	7,713	16,821	28,400	24,481	1,882	6,821	27,600	2,724	3,458	1,748	6,800	2,401,461	4,082	41.9

REPORTS-COUNTY AND LOCAL DENTAL TREATMENT PROGRAMS, DENTAL HEALTH DIVISION, BY FISCAL YEARS
JULY 1, 1940-JUNE 30, 1947

County	Initiated	Year	Type of Program	Extractions										Fillings			Total Operations	Cases Completed	Percentage of Completions
				Perma.	Decid.	Examinations	Viata	Children Treated	Operating Time (Hours)	Perma.	Decid.	Silver	Silver Amal.	Silic.	Tempor.	Propylaxis				X-rays
1943 Atlantic County Program	P. O.	1942-44	2	3	63	47	84	18	23	41	80	54	0	0	107	0	34.6	
1944-45	P. O.	1944-45	2	5	134	200	421	149	60	163	820	71	69	120	3	341	45	66.1
1943 Bergen County Program	P. O.	1943-44	5	11	85	209	463	80	41	178	568	0	50	0	70	0	38.4	
1945-46	P. O.	1945-46	5	0	134	183	282	77	10	71	441	0	24	0	29	0	52	28.4
1946-47	P. O.	1946-47	0	0	118	302	574	585	60	111	635	77	15	40	15	250	22	43.1
1940 Bergen County-N. Arlington	Cl.	1940-41	1	1	287	625	1,772	809	61	302	1,278	90	55	103	0	2,832	170	70.0
1942-43	Cl.	1942-43	1	1	468	913	2,527	789	69	440	1,772	0	57	498	0	3,895	407	63.0
1943-44	Cl.	1943-44	1	1	375	853	1,988	1,137	0	382	1,971	0	14	0	3,501	373	61.4	
1944-45	Cl.	1944-45	1	1	306	753	1,878	1,084	12	235	1,632	0	0	0	3,043	375	100.0	
1945-46	Cl.	1945-46	1	1	411	708	1,987	1,232	12	137	1,441	107	60	114	2,705	383	90.7	
1946-47	Cl.	1946-47	1	1	430	733	2,041	900	18	184	1,448	201	62	803	384	5,350	412	81.0
1945 Bergen County-Rutherford	Cl.	1945-46	2	1	40	141	220	600	38	62	192	0	11	38	1	262	24	60.0
1946-47	Cl.	1946-47	2	1	60	174	283	846	14	16	221	21	31	31	373	46	70.0	
1942 Camden County-Winlow Twp.	P. O.	1943-44	2	1	60	70	170	68	18	209	108	1	40	55	0	481	51	73.9
1944-45	P. O.	1944-45	3	2	187	218	501	45	111	171	244	52	73	117	0	854	107	71.8
1945-46	P. O.	1945-46	3	1	153	54	120	53	7	48	40	8	17	10	2	691	109	68.2
1946-47	P. O.	1946-47	1	4	122	114	277	111	23	165	62	3	20	188	0	113	27	50.9
1945 Camden County-Lawnside	Mo. Cl.	1944-45	1	4	324	45	324	45	26	173	544	63	245	140	28	978	96	4.4
1946-47	Mo. Cl.	1946-47	1	10	509	1,029	2,462	1,182	38	628	2,866	108	2	532	492	4,734	402	70.8
1942 Cape May County Program	P. O.	1942-43	1	0	88	174	283	94	10	225	527	11	3	100	0	870	67	76.1
1944-45	P. O.	1944-45	2	0	112	140	303	14	225	388	48	7	80	0	0	0	96	70.8
1945-46	P. O.	1945-46	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
1946-47	P. O.	1946-47	2	1	72	69	117	73	10	53	133	17	46	85	4	509	70	71.1

Code for Type of Program: P. O.—Private office; Mo. Cl.—Truck mobile with complete dental equipment; Cl.—Clinic; Tr.—Trailer with dental equipment.

REPORTS-COUNTY AND LOCAL DENTAL TREATMENT PROGRAMS, DENTAL HEALTH DIVISION, BY FISCAL YEARS
JULY 1, 1940-JUNE 30, 1947

Initiated	County	Type of Program	Year	Dentists	Children Treated	Operating Time (Hours)	Visits	Extractions				Temporaries	Prophylaxis	X-rays	Total Operations	Cases Completed	Percentages of Completions		
								Perim.	Deid.	Silver Amal.	Stite.								
1942	Cumberland County	P. O.		3	150	108	297	63	187	101	18	35	138	2	507	28	17.9		
1943-42				6	209	490	895	25	520	153	0	1,275	0	1,713	120	61.0			
1943-43				3	159	484	817	28	306	1,038	81	63	154	0	1,318	118	53.0		
1943-44				8	158	253	509	121	411	1,254	168	0	0	0	438	63	28.5		
1944-45				2	119	184	329	117	23	115	170	0	0	0	439	67	31.5		
1945-46				4	208	366	684	183	54	308	400	48	102	102	27	639	87	41.8	
1946-47				1	341	678	1,031	300	71	500	910	85	108	245	92	1,463	134	39.2	
1948-48	Essex County—Orange	Cl.		2	41	70	70	29	5	15	41	0	10	4	8	63	2	4.8	
1944-43				1	634	630	1,043	205	45	251	670	84	84	107	1	1,180	118	22.0	
1944-45				3	273	531	1,224	444	24	503	1,310	83	89	421	0	2,104	211	77.5	
1946-47				2	214	730	1,410	523	46	188	1,701	88	106	500	154	2,095	273	86.6	
1916-47	Essex County—Montclair	Cl.		1	326	852	1,704	438	40	239	923	218	202	417	86	1,992	280	88.6	
1940-41	Hunterdon County Program	Cl.		1	24	602	707	1,071	610	332	1,054	168	0	0	4,275	153	23.0		
1941-42				3	24	402	605	1,475	207	118	1,254	135	0	0	3,340	100	70.9		
1942-43				1	24	411	519	61	648	1,026	90	214	470	0	2,985	300	34.0		
1943-44				1	24	450	577	1,138	698	35	401	742	90	11	1,852	308	68.4		
1944-45				1	24	373	429	1,263	701	53	430	574	72	169	568	0	1,087	311	61.3
1945-46				1	24	373	429	1,263	701	53	430	574	72	169	568	0	1,087	311	61.3
1946-47				1	25	420	454	1,002	683	40	110	575	114	39	20	1,347	200	69.0	
1945-46	Mercer County—Hamilton Twp.	Cl.		1	101	400	764	108	22	108	457	72	33	100	0	900	71	41.1	
1946-47				1	272	637	1,334	782	89	248	905	340	77	275	0	1,518	147	54.01	
1942	Middlesex County Program	P. O.		1	3	101	120	200	101	38	107	292	11	47	50	0	503	42	41.5
1942-43				3	4	183	174	253	85	39	105	259	20	42	2	749	35	34.6	
1943-44				3	15	270	513	145	35	238	304	52	15	112	2	910	88	50.4	
1945-46				6	158	270	513	145	35	238	304	52	15	112	2	910	88	50.4	
1946-47				5	6	100	388	633	157	46	133	547	71	40	135	6	960	67	35.2
1942	Middlesex County—Keep Well Camp Tr.			1	197	101	323	140	37	113	139	10	21	21	0	322	18	11.1	
1943				1	287	155	270	25	140	207	2	19	352	0	638	5	1.7		
1944				1	180	202	484	270	20	146	207	2	10	243	22	413	62	27.2	
1945				2	243	277	702	200	10	255	394	31	30	243	22	413	62	27.2	
1946				2	263	305	704	241	31	309	416	23	28	263	60	1,107	88	35.4	
1945-46	Middlesex County—Deans	Cl.		4	184	363	477	151	31	98	378	60	105	100	0	684	162	55.5	
1946-47				2	102	220	343	105	14	49	303	81	81	160	0	560	30	37.5	
1941	Monmouth County Program	P. O.		3	189	600	895	25	520	153	0	1,275	0	1,713	120	61.0			
1942-43				7	209	484	817	28	306	1,038	81	63	154	0	1,318	118	53.0		
1943-44				9	14	385	779	1,454	518	110	671	1,547	144	21	3,077	37	2,848	270	72.4
1944-45				11	17	587	1,237	1,900	471	136	767	2,327	270	190	698	77	4,148	420	78.4
1945-46				12	18	649	1,015	2,331	641	110	609	2,021	241	247	317	411	1,400	547	78.5
1946-47				14	17	698	1,389	2,848	1,815	110	504	3,074	342	211	684	314	6,000	548	78.5
1945-46	Monmouth County—Matawan	Cl.		2	82	114	314	75	9	84	271	29	24	45	1	430	45	54.9	
1946-47				2	102	187	328	114	43	280	29	40	170	65	597	58	274	27.4	
1946-47	Monmouth County—Collier Fd.	Cl.		1	102	188	353	42	8	625	60	40	21	1	253	34	33.8		
1944-44	Morris County Program	P. O.		7	120	222	460	112	38	106	424	28	65	60	0	772	55	45.8	
1945-45				13	183	348	648	121	532	1,340	142	137	231	54	2,250	182	58.3		
1946-47				21	32	812	1,570	2,262	5,003	135	632	2,281	293	340	330	184	3,801	290	56.7
1945-46	Ocean County Program	P. O.		1	7	43	46	7	7	10	62	18	0	7	0	113	5	71.4	
1945-46				5	8	114	278	372	110	50	180	478	65	65	0	47	102	92	87.8
1946-47				6	3	148	348	400	128	51	504	30	15	61	100	1,000	96	30.7	
1945-46	Ocean County	Tr.		1	8	11	20	8	2	4	13	5	2	1	0	35	0	0.0	
1946-47				14	112	793	175	3,809	21	101	317	132	15	10	20	1,382	70	10.5	
1941-42	Passaic County—Paterson	Cl.		1	445	668	2,071	100	214	1,306	1,388	94	162	0	3,184	135	41.5		
1942-43				1	607	1,005	2,100	311	267	1,986	2,681	222	0	583	0	5,058	652	94.9	
1943-44				1	1,000	1,763	3,000	612	1,083	2,394	1,083	108	15	687	200	5,013	603	58.2	
1944-45				2	1,035	1,103	2,050	793	155	754	2,720	126	180	802	701	5,317	538	82.1	
1946-47				1	806	1,888	3,631	1,170	148	1,110	4,398	270	32	1,310	640	5,801	545	60.8	
1945-46	Passaic County Program	P. O.		1	15	62	108	14	7	9	102	0	43	10	20	103	0	40.0	
1946-47				1	18	92	191	27	13	28	121	20	51	10	12	210	12	66.0	
1948-44	Passaic County—Wanaque	Cl.		1	32	69	111	32	6	25	102	7	0	24	254	24	76.0		
1946-46				1	74	113	189	98	6	117	268	0	2	115	0	460	33	44.9	
1946-47				1	72	159	272	122	16	69	438	0	2	110	2	640	32	72.2	
1945-46	Passaic County—Prospect Pk.	Cl.		1	17	68	1108	14	7	9	102	0	43	10	20	103	0	40.0	
1946-47				1	44	87	123	52	10	68	236	0	0	40	0	862	7	15.0	
1942	Somerset County Program	Tr.		7	212	205	693	511	68	412	61	10	74	110	0	1,645	103	46.1	
1946-43				2	14	331	444	700	320	88	370	831	121	209	0	1,623	138	45.2	
1944-44				1	22	430	650	2,248	1,003	50	1,460	80	68	402	108	2,624	337	50.2	
1944-45				1	13	447	944	3,071	2,801	46	428	1,102	88	40	571	60	2,557	408	90.6
1946-46				1	16	583	845	4,089	3,097	68	455	1,464	70	28	839	80	2,070	408	78.0
1946-47				1	10	373	918	1,360	2,367	25	335	1,340	92	28	672	23	2,340	500	86.9

* Children in Kiddie Keep Well Camp come from a number of communities in Middlesex County.
Code for Type of Program: P. O.—Private office; Mo. Cl.—Track mobile with complete dental equipment; Cl.—Clinic; Tr.—Trailer with dental equipment.

REPORTS—COUNTY AND LOCAL DENTAL TREATMENT PROGRAMS, DENTAL HEALTH DIVISION, BY FISCAL YEARS
JULY 1, 1940—JUNE 30, 1947

Inflated	County	Type of Program	Year	Dentists	Communities	Children Treated	Operating Time (Hours)	Visits	Examinations	Perms.	Decid.	Silver Amalg.	Fillings	Temporaries	Prophylaxis	X-rays	Total Operations	Cases Completed	Percentages of Completions	
	1942 Sussex County Program	P. O.	1942-43	2	5	58	49	105	88	12	124	94	0	35	44	0	274	31	58.4	
			1943-44	5	10	120	101	272	123	4	105	200	21	0	0	1	7	1	50.0	
			1944-45	4	11	84	220	315	87	48	97	537	40	28	0	0	17	530	52	48.3
			1945-46	5	12	235	351	684	216	51	281	882	87	17	170	5	1,426	140	60.6	
	1943 Union County—Clark Twp.	Cl.	1943-44	1	1	104	204	400	410	16	124	523	13	20	22	1	700	31	29.8	
			1944-45	1	1	184	268	680	416	18	218	493	39	55	0	0	0	631	50	44.3
			1945-46	1	1	122	278	475	412	8	122	383	12	24	87	0	0	683	50	42.5
			1946-47	1	1	126	245	780	307	15	90	440	7	18	08	39	074	00	52.3	
	1945 Union County—Kenilworth	Cl.	1945	1	1	10	59	82	473	3	8	80	0	0	0	0	111	2	10.0	
			1945-46	1	1	48	203	415	501	8	43	394	10	9	13	0	392	20	17.7	
			1946-47	1	1	47	177	324	514	2	36	161	24	1	70	0	392	10	40.4	
	1943 Warren County Program	P. O.	1943	4	15	44	67	106	46	10	106	88	10	22	30	0	230	33	75.0	
			1943-44	4	12	47	124	120	46	38	75	98	22	11	23	4	207	23	48.9	
			1944-45	6	9	64	72	101	27	17	66	74	9	11	23	7	220	36	75.8	
			1945-46	3	10	40	110	184	38	13	55	105	6	22	30	7	220	36	75.8	
			1946-47	3	6	28	51	80	24	10	38	90	8	2	10	1	157	8	28.5	
	Number of counties	2	1940-41	2	25	839	1,282	2,843	970	423	1,606	2,846	77	55	088	0	0,007	320	39.2	
	Number of counties	8	1941-42	15	48	2,088	3,153	8,297	1,862	613	4,085	6,898	276	309	1,705	2	14,410	1,250	60.2	
	Number of counties	11	1942-43	25	109	2,840	4,739	10,150	3,455	879	5,236	9,066	500	887	1,888	0	10,018	1,901	68.9	
	Number of counties	16	1943-44	40	150	3,328	6,277	12,681	6,277	888	4,242	10,785	683	1,005	2,508	010	20,007	2,294	68.9	
	Number of counties	10	1944-45	58	154	4,679	8,046	17,754	7,006	908	5,204	13,446	960	1,240	3,640	1,032	20,450	3,080	65.8	
	Number of counties	17	1945-46	80	171	5,732	10,575	23,061	11,826	1,123	5,795	21,389	1,343	1,468	6,006	2,341	38,215	3,034	68.6	
	Number of counties	17	1946-47	108	188	7,713	15,821	28,469	24,484	1,882	6,321	27,666	2,724	1,748	8,080	2,491	40,104	4,932	61.0	

Code for Type of Program: P. O.—Private office; Mo. Cl.—Truck mobile with complete dental equipment; Cl.—Office; Tr.—Trailer with dental equipment.
**NOTE: During the early stage of the program, the number of communities in the program was obtained with some difficulty. The cause of the confusion was the use of school districts, townships, boroughs and schools as units for reporting. It was decided to list only school districts after July 1, 1946.

Report of the Division of Maternal and Child Health

For the Calendar Year 1946

By JULIUS LEVY, M.D., Chief

MATERNAL MORTALITY

The maternal mortality rate for New Jersey continues to show a decrease. The 1946 rate of 1.3 per 1,000 live births is the lowest ever attained. The educational health activities that began over 25 years ago have developed over the years including the investigation and study of each puerperal death. The effectiveness of these activities is shown in the consistent reduction in the mortality rate.

INFANT MORTALITY

A new low in the infant mortality rate was reached in 1946—28 per 1,000 live births. This rate is four points less than 1945 and the lowest ever attained. There were nearly 20,000 more births in 1946 than the previous year. The lowest infant mortality rate among the 21 counties of the State was 24. Three counties had this rate, Middlesex, Union and Bergen. The highest rate among the counties was 42 for Salem.

Of the cities with more than 1,000 births per year, Irvington with a rate of 19 is again low, while Trenton with a rate of 43 is highest.

In considering the causes of infant deaths, prematurity and related causes remains the highest in the toll of infant lives. Respiratory diseases and diarrhea have become a comparatively minor cause of infant deaths.

	Prematurity and Related Causes	Respiratory Diseases	Diarrhœa	Contagious Diseases	Other Causes
1920	29.3	19.7	17.7	4.2	16.4
1925	30.6	12.6	10.7	2.7	12.1
1930	28.0	11.6	5.9	1.4	9.6
1935	28.7	9.1	2.3	1.2	4.6
1940	24.6	6.0	1.4	.3	3.4
1945	22.8	4.1	1.4	.2	3.2
1946	22.1	2.9	.9	.2	2.3

HOME DELIVERY NURSING SERVICE

The use of the home delivery is about the same as for 1945. There were 20 registered nurses who assisted physicians at 151 home deliveries. Ten additional home deliveries were attended by seven nurses from local Visiting Nurse Associations. Obstetrical consultants who are available for home deliveries were not called except in one case. Three of the home deliveries were servicemen's wives for which the EMIC program provided the funds.

BABY KEEP-WELL STATIONS

There were 170 Baby Keep-Well Stations conducted under the supervision of the Division of Maternal and Child Health. Physicians served in 93 of these stations. Doctors in 87 of the stations were paid from Social Security funds. In 16 stations the doctors in attendance were either paid locally or served without compensation.

The doctors in the stations made 9,588 examinations of infants and 4,007 of preschool children.

EDUCATIONAL ACTIVITIES

Nurses under the supervision of the Division of Maternal and Child Health met regularly in conferences for discussion of the application of maternal and child health nursing services.

The practical aspects of mental hygiene were presented to the field nurses at a series of nine special lectures. The application of the underlying principles of mental hygiene were further elaborated at conferences and in the course of field trips with the individual nurses.

Baby station physicians under the leadership of the Division's pediatrician met periodically to discuss the physical and mental aspects of child growth and development.

A group of 22 newly appointed nurses from various sections of the State attended an in-service class of three weeks' duration for training in the fundamental principles of public health nursing, with special emphasis in maternal and child health.

AUDIOMETER

The audiometer for testing the hearing of school children was in constant use throughout the year. A total of 11,018 children were given their initial test. There were 1,431 re-tests made and the 591 children found to have hearing defects were referred to their family physicians for care.

MATERNITY HOMES

Fourteen maternity homes were granted a renewal of license by the State Department of Health. One home was approved for 15 patients. The others were for two to four patients. All maternity homes licensed by the Department are inspected periodically.

EXTENSION OF ACTIVITIES

Of the 249 field nurses under the supervision of the Division of Maternal and Child Health, 161 were paid entirely by the communities in which they work, 17 were paid entirely by the State or from Social Security funds, and 71 were paid partly by the State and partly by the communities in which they work.

The 249 public health nurses had under their supervision 17,320 expectant mothers, 22,070 post-partums, 48,199 infants, 65,207 children between one and six, and 145,025 school children.

During the year five nurses were placed for the demonstration period in the following communities:

Egg Harbor Township	Atlantic County
River Edge	Bergen County
Englewood	Bergen County
Rahway	Union County

The following communities assumed a portion or the balance of the nurses' salaries:

<i>Atlantic County</i> —Atlantic City, Egg Harbor Township.
<i>Bergen County</i> —East Rutherford, North Arlington, River Edge, Emerson, Old Tappan, Hackensack, Northvale, Englewood.
<i>Camden County</i> —Voorhees Township.
<i>Cumberland County</i> —Deerfield Township.
<i>Gloucester County</i> —Mantua Township, Elk Township, Logan Township, Swedesboro, Monroe Township.
<i>Hunterdon County</i> —High Bridge, Clinton Township.
<i>Mercer County</i> —Ewing Township.
<i>Middlesex County</i> —Raritan Township, East Brunswick Township.
<i>Passaic County</i> —Paterson.
<i>Sussex County</i> —Green Township.
<i>Somerset County</i> —Raritan.

STATISTICAL SUMMARY OF 249 NURSES' WORK

Home visits by the nurses	519,207
To expectant mothers	47,982
To post-partums	49,841
To infants	186,834
To children 1 to 6	170,589
To school children	63,961
Visits to Baby Keep-well Station	43,202
By babies	28,334
By children 1 to 6	14,868
Child Hygiene Leagues (classes conducted)	306
Dental sessions assisted by nurses	661
Mothers' classes conducted by nurses	49
Children under one year of age immunized	9,352
Children one to five years of age immunized	6,850
Children vaccinated	13,322
School children supervised	145,025
Inspections (annual, general, or assisting doctor)	717,656

ILLEGITIMATE BIRTHS

There were 2,265 births out-of-wedlock among New Jersey residents. This represented 2.3% of the total births for the State. In 1945 the percentage of these cases was 2.8. Of these mothers about 15% were under 17 years of age, a little more than 50% were over 21.

MIDWIFERY

There were 177 licensed, registered midwives in New Jersey in 1946, or 23 less than there were in 1945. Of these, 161 were supervised by the State Department of Health and 16 by a local department. The midwives delivered only 630 out of the 95,044 births in the State. This is only 0.6% of the births. In 1945 they delivered 1.1%, in 1938 4.0%, in 1928 16.6% and in 1918 42.2%.

Whenever there are any abnormal cases, the midwives are required to call in a physician or send the patient to a hospital. The midwives report all cases of congenital deformities directly to the Crippled Children's Commission.

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

The program set up for the benefit of the wives of servicemen and their infants continued with the cooperation of over 2,000 physicians and all the hospitals throughout the State. During the year 5,222 maternity cases were authorized to receive care and 1,096 infants received medical and hospital care.

Since the plan became effective in April, 1943, and until December, 1946, 29,978 maternity cases and 2,613 pediatric cases were authorized to receive care.

Effective July 1, 1947, no maternity cases will be authorized unless the pregnancy took place previous to that date. This is in accordance with the establishment of the program for the duration of the war and six months thereafter. During the first six months of 1947, 619 maternity cases were authorized to receive care and 383 infants received medical and hospital care.

Negro Health Program

Year Ending June 30, 1947

By J. EARLE STUART, M.D., M.S.P.H., *Consultant*

This program continues to promote and extend health education to all levels of the population following the dictum that the "dominant characteristic of public health methods is its emphasis on health education." We attempt to prepare the masses for participation in community health by arousing, stimulating and giving motives for healthful living.

The programs of pre-school immunization, community chest X-ray surveys and programs for blood-testing require action from those receiving these services. This is the desideratum of educational methods.

The counties of the rural parts of New Jersey were selected because of a paucity of existing local official or voluntary agencies.

A major function of our nursing service was to carry instructions into the homes on a family basis so that needed health and welfare facilities could be obtained nearest to home. While promoting publicity for community X-ray surveys, through a "door-to-door" manner, this informational service was given readily. We boast of the fact that under the guidance of our three public health nurses some of the services of our program are promoted through volunteer leadership and community support.

For the first time in New Jersey an extensive cooperative community X-ray survey was executed in Newark with the local health department and the Division of Tuberculosis Control of this Department. Publicity was developed through Newark newspapers, local radio stations, churches and nurses of the State and local health departments. Appointment slips were distributed by the nurses through home visits and contacts with organized groups. Posters were placed in 14 neighborhoods where the X-ray service was being offered, selected on a basis of epidemiological experience—that is, in sections where contacts of previous cases of tuberculosis live. The X-ray trailer of the State Division of Tuberculosis Control, with photofluorographic equipment furnished an easily accessible facility that required only a few

minutes of the applicant's time, because, for the first time, we did not require removal of the clothes to the waist. Moreover, the trailer was moved to a different locality each day which enabled us to cover a wider area. Of the 9,916 persons X-rayed during this period, 369 showed lesions worthy of further clinical study. These findings were significant and proved first, that health services will be used if made flexible and convenient, and second, that many undiscovered persons with pathology in their chest are in our midst.

This program, in cooperation with the United States Public Health Service, promotes the National Negro Health Week celebration in New Jersey. Our major contribution to the national observance of Negro Health Week is our annual State health meeting held in Trenton, at which time representatives from 11 counties received Certificates of Merit from the United States Public Health Service, presented by Dr. Roscoe C. Brown, Chief of Negro Health Work throughout the country. These awards are given to key people of counties where effective public health programs are carried on with the aid of volunteer community groups. A plaque was presented by the State Department of Health to Passaic County, represented by Mr. Walter S. Page, Jr., executive secretary of the Passaic County Tuberculosis Association, for the promotion of the most successful Community Chest X-ray survey in 1946 with a total of 1,182 persons examined. Dr. A. Godfrey Featherston, former administrator of the Philadelphia Health Center, was the guest speaker for the annual meeting and spoke on "Community-wide Cooperation for Better Health and Sanitation." Physicians, dentists, public health nurses, social workers, ministers, school officials and health officers were among the approximately 250 persons in attendance.

A summarized report of our activities follow. Realizing that our program functions as a coordinator for existing health agencies, we are pleased that we have been successful in offering services to local health departments and county tuberculosis leagues throughout the State, and have helped in expanding public health services and extending their reach.

Health Education

Health meetings	90
Counties participating	11
Cities participating	40
Literature distributed (health literature on various subjects)	21,169
Speakers for health meetings	19
Subjects discussed:	
Housing and health	
Tuberculosis	
Cancer control	
Venereal diseases	
Petting—teen-agers	
Child care	
Nutrition	
Community health and sanitation	
Film showings (subjects listed above)	28
Radio broadcasts	17
Stations:	
WTNJ and WTTM—Trenton	
WBUD—Morrisville	
WAAT—Newark	
Home visits by three public health nurses	897

Case-Finding

Tuberculosis—Community X-ray surveys:	
Number of surveys	4
Number of persons X-rayed	12,466
*Cases needing further study (tuberculous pathology)	457
Re-infection tuberculosis (minimal and far-advanced-active)	14
Where held:	
Paterson	
Passaic	
Trenton	
Newark	

* Follow-up cases are referred to the respective county tuberculosis associations for re-takes on 14 x 17 films and reports are sent to the Bureau of Local Health Services of the State Department of Health. Persons with non-tuberculous findings are referred to the family physician designated. Negative reports are sent from this office.

The X-ray facilities of commercial firms were used in Paterson and Passaic and the facilities of the State Tuberculosis Division were used in Trenton and Newark. The writer read the films of the Paterson and Passaic surveys, and the member of the staff of the Tuberculosis Control Division read the films for Trenton and Newark.

Venereal Disease—Case-Finding

Blood-testing programs (held with X-ray surveys)	3
Number of persons blood-tested	1,254
**Cases needing follow-up	72

Immunization Programs—Rural areas

Pre-school and school children receiving combined diphtheria and whooping-cough toxoid	319
Pre-school and school children vaccinated	45
Clinics held:	
Jericho—school	
Woodbury—school	
East Berlin—school	
†Crosswicks—baby clinic	
†Whitebog—baby clinic	
Port Norris—school	
Springtown—school	
†East Riverton—school; baby clinic	

** Persons with positive blood tests were referred to the family physician designated by the person; a second blood test was taken by the physician to determine the need for treatment. The county tuberculosis associations and our public health nurses were responsible for the necessary follow-up.

† These baby clinics were sponsored by the Burlington County Tuberculosis League.

There follows a chart giving a total summary of our activities.

	Health Meetings	Approx. Att'n	X-rayed	Blood Tests	D. & W. C. Tox.	Small-pox Vac.	Home Visits
<i>Atlantic County</i>							
Atlantic City	2	150	..	..	..	..	..
<i>Bergen County</i>							
Englewood .....	..	..	..	..	..	..	10
Hackensack .....	..	..	..	..	..	..	10
<i>Burlington County</i>							
*Burlington	1	75	..	..	..	..	..
Crosswicks .....	..	..	..	..	31	..	..
Whitesbog .....	..	..	..	..	18	..	..
East Riverton .....	..	..	..	..	25	..	..
<i>Camden County</i>							
*Haddonfield	1	90	..	..	..	..	..
Lawnside	1	97	..	..	..	..	187
East Berlin .....	..	..	..	..	28	5	55
*Jericho	3	44	..	..	85	..	..
*Camden	5	240	..	..	..	..	6
*Magnolia	1	49	..	..	..	..	..
Merchantville	1	200	..	..	..	..	..
<i>Cape May County</i>							
Cape May .....	..	..	..	..	..	..	4
<i>Cumberland County</i>							
Bridgeton	1	21	..	..	..	..	5
Port Norris	1	75	..	..	38	35	..
Gouldtown	1	24	..	..	..	..	..
Springtown .....	..	..	..	..	24	..	12
<i>Essex County</i>							
East Orange .....	..	..	..	..	..	..	5
*Newark	19	4,750	9,916	..	..	..	182
<i>Gloucester County</i>							
Millville .....	..	..	..	..	..	..	3
*North Woodbury .....	..	..	..	..	..	..	..
*Woodbury	4	190	..	..	70	5	30
Paulsboro	1	19	..	..	..	..	3
Swedesboro	1	120	..	..	..	..	7
<i>Mercer County</i>							
Hightstown .....	..	..	..	..	..	..	13
*Trenton	12	1,470	1,061	644	..	..	100
*Princeton	2	47	..	..	..	..	..
<i>Middlesex County</i>							
Cranbury .....	..	..	..	..	..	..	5
Carteret	1	45	..	..	..	..	10
<i>Passaic County</i>							
*Paterson	11	980	1,182	502	..	..	135
Passaic	7	400	307	108	..	..	43
<i>Union County</i>							
*Elizabeth	11	1,385	..	..	..	..	20
*Plainfield	2	300	..	..	..	..	..
Plainsboro .....	..	..	..	..	..	..	9
Linden .....	..	..	..	..	..	..	30
Rahway .....	..	..	..	..	..	..	1
Roselle .....	..	..	..	..	..	..	30
<i>Warren County</i>							
Washington	1	175	..	..	..	..	..
Totals	90	10,946	12,466	1,254	319	45	897

* Indicates places where health educational films were shown to school children or with organized health meetings for adults.

Report of Rabies Control Unit

For the Calendar Year January 1, 1946 to December 31, 1946

By J. S. McDANIEL, D.V.S., *Veterinarian-in-Charge*

The calendar year, ending December 31, 1946, was marked by a continued advance in cooperation between local health, municipal officials and representatives of the Rabies Control Unit of the New Jersey State Department of Health in rabies and dog control work.

REVENUE

Of the total dog registration fees received, \$79,706.95, the sum of \$35,521.65 was expended by the Rabies Control Unit and \$53,270.95 was transferred to the general treasury of the State. Although the Rabies Control Act, P. L. 1941, c. 151, originally set forth that all moneys collected under this act should be used for rabies control work, an act of the Legislature abolished all dedicated funds. The Unit therefore operates on moneys allocated to it by the Appropriations Committee. Table No. 1 shows a breakdown of moneys collected and expended since the enactment of the Rabies Control Act.

PERSONNEL

Personnel employed by the Rabies Control Unit consists of a veterinarian-in-charge, one veterinary inspector, four investigators, two rabies control wardens, two inspectors (emergency), one laborer, one principal clerk and two stenographers.

Field personnel of the Unit have covered a total of 85,518 miles while engaged in the support of local health and municipal officials whose facilities for handling dog control problems were strikingly ineffective (see Table No. 2).

INCIDENCE OF RABIES

According to reports received, there were 276 reported cases of rabies in the State during the year 1946 (see Table No. 3): canine 270, feline 2, cattle 2, and human 2.

Despite constant patrolling, conferences and educational work done by representatives of the Rabies Control Unit, rabies is rampant in some northern sections of the State. The public reacts in varying degrees in quarantined areas—some cooperating to the fullest extent, others being very indignant because their dogs must be confined in accordance with R. S. 26:4-84.

Since the enactment of the Rabies Control Act in 1941, the incidence of rabies in animals has declined approximately 85%. Although the decline in the number of cases reported may be comforting, the recurrence of outbreaks during the current year, and five human deaths from this preventable disease over a five-year period, serves as a warning against the false conclusion that the disease is under control. Two of these human deaths occurred during the year 1946; one a three-year-old in Roseland, N. J., the other a World War II veteran, of Livingston, N. J. The problem of rabies control has not been solved. Until and unless there can be evolved a practicable system of rabies and dog control—sufficiently inclusive to overcome the inadequacies of the current program—the avowed purposes of the Rabies Control Law cannot be considered approaching accomplishment.

PROPOSED PROGRAM

In the proposed program, three mobile units (now on order) will be utilized in assisting local health and municipal officials in areas where facilities for control of rabies and dogs are inadequate or ineffective. Every municipality requesting assistance from the Rabies Control Unit of the New Jersey State Department of Health in the solution of its dog problem will be given prompt and effective service. It is felt that a well organized and adequately equipped control system will aid in decreasing the incidence of rabies within a municipality and, further, prevent the loss of domestic animals and damage done by predatory or rabid animals.

LEGAL ACTION

Legal actions brought by representatives of the Rabies Control Unit resulted in the collection of \$4,241 in fines for violations of R. S. 4:19-15.2 (licensing) and R. S. 26:4-84 (quarantine). (See Tables Nos. 4 and 4A.)

DOG BITES

Revised Statutes 26:4-79, 26:4-80 and 26:4-81 provide that dog bites shall be reported by the physician attending a person bitten by an animal, by the parent or guardian when a child is bitten and no physician attends, and by the adult when said adult is bitten and no physician attends. The report is made to the person designated by law, or by the local board of health under author-

ity of law, to receive reports of reportable communicable diseases in the municipality in which the person so bitten may be.

According to a tabulation received in the Rabies Control Unit from the Bureau of Local Health Services, 14,167 dog bites were reported to local boards of health during the year 1946 (see Table No. 5).

TABLE No. 1

Year	Revenue*	Expenditures**	Transferred to General Fund of the State as Required by R. S. 4:19-15.11
1942	\$84,667.10	\$10,025.57 (a)	
1943	80,521.65	21,352.55 (b)	
1944	78,112.00	19,745.71	\$27,724.02
1945	79,710.40	11,824.06 (c)	52,232.94
1946	79,706.95	35,521.65 est. (d)	53,270.95
Totals	\$402,718.10	\$121,797.75	\$133,227.91

* Revenue—on a calendar year basis.

** Expenditures—on a fiscal year basis.

(a) From January 1, 1942 to June 30, 1943.

(b) From July 1, 1943 to December 31, 1943.

(c) From July 1, 1945 to December 31, 1945.

(d) From January 1, 1946 to December 31, 1946.

Rabies control penalties for 1946

\$4,241.00

Two years' revenue retained in fund

\$159,383.84

TABLE No. 2

Patrolling, Assisting Local Officials	Conferences With Municipal Officials, Court Proceedings		Inspecting Local License Records & Accounts	Investigating Dog Bites & Complaints	Investigating Rabies Cases & Exposures	Inspecting Kennels, Pounds, Pet Shops & Shelters & Making Municipal Surveys		Fines Collected for Violation of Dog Licensing & Quarantine Provisions				
	No. Muns. Hrs. Visited	No. Muns. Hrs. Visited				Hrs.	No.	Hrs.	No.	No.	Fines Col.	
7,706	1,850	2,741	563	570	212	245	841	290	1,153	630	1,028	\$4,241

NOTE: Seventy-three cases in Elizabeth fined \$5.00 each, but sentences suspended—not included in above. Also, several hundred summonses issued by our men, but prosecuted locally—fines not included in above.

TABLE NO. 3—NUMBER OF CASES OF RABIES

COUNTY	Jan.	Feb.	March	April	May	June	July	AUG.	Sept.	Oct.	Nov.	Dec.	Total
Atlantic	0	0	0	0	0	0	0	0	0	0	0	0	0
Bergen	0	0	0	0	0	0	0	0	0	0	0	0	0
Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0
Camden	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	0
Essex	11	0	0	0	0	16	22	10	4	0	4	1	111
Gloucester	0	0	0	0	0	0	0	0	0	0	0	0	0
Hudson	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	0	0	0
Horser	0	0	0	0	0	0	0	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0	0	0	0	0	0	0	0
Monmouth	0	0	0	0	0	0	0	0	0	0	0	0	0
Morris	1	0	0	0	0	0	0	0	0	0	0	0	7
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	0
Salem	0	0	0	0	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	8	15	35	85	23	58	35	18	21	21	11	276

Totals for the year: 2 humans, 270 dogs, 2 cats, 2 cattle.
 * Essex County—2 humans, 1 cat
 ** Bergen County—1 human, 1 dog
 † Somerset County—1 steer
 ‡ Union County—1 cat

TABLE NO. 4
 FINES COLLECTED FOR VIOLATION OF SECTION 2 OF THE RABIES CONTROL ACT REGARDING THE LICENSING OF DOGS

Month	County	Fines
April	Middlesex	\$2.00
July	Monmouth	9.00
August	Monmouth	1.00
Total		\$12.00

TABLE NO. 4A
 FINES COLLECTED FOR VIOLATION OF R. S. 26:4-84, THE RABIES QUARANTINE ACT

Month	Bergen County	Essex County	Hudson County	Union County	Total
May			\$200.00		\$200.00
June			45.00		45.00
July	\$100.00		45.00		145.00
August	220.00	\$85.00	5.00	\$160.00	470.00
September	410.00			140.00	550.00
October	422.00	255.00		255.00	932.00
November	407.00	160.00		655.00	1,222.00
December	345.00			320.00	665.00
	\$1,904.00	\$500.00	\$295.00	\$1,530.00	\$4,229.00

NOTE: No fines collected from January to April, inclusive.

TABLE NO. 5
 TABULATION SHOWING THE NUMBER OF DOG BITES REPORTED TO LOCAL BOARDS OF HEALTH DURING THE YEAR 1946

(From Annual Reports of Local Boards of Health)

Atlantic County	41	Middlesex County	548
Bergen County	1,607	Monmouth County	662
Burlington County	121	Morris County	382
Camden County	669	Ocean County	65
Cape May County	78	Passaic County	1,101
Cumberland County	60	Salem County	6
Essex County	4,139	Somerset County	186
Gloucester County	27	Sussex County	63
Hudson County	2,297	Union County	1,459
Hunterdon County	22	Warren County	37
Mercer County	597		
Total		Total	14,167

Report of the Division of Tuberculosis Control

For the Year Ending June 30, 1947

By A. JOSEPH HUGHES, M.D., *Chief*

The fiscal year ending June 30, 1947 witnessed a further expansion of the activities of the Division of Tuberculosis Control. The case-finding program was expanded considerably through the impetus of newly delivered X-ray equipment. The accompanying health educational program was utilized more frequently and more extensively, and the 1946 plan for a more extensive clinic system became a reality. There is still the one usual sad comment of "No State funds, and insufficient personnel and office space."

The Division now has at its command five transportable photofluorographic units, four of which are 70mm. units and one which is both a 4 x 5 and a 70mm. unit. These units are constructed so that 14 x 17 plates can also be taken. Usually three, and at times, four of these units are in daily operation throughout the State, servicing either industrial groups, community groups, or institutional populations.

The long-awaited trailer X-ray unit was delivered early in the fiscal year and has been in constant operation ever since. This mobile laboratory is equipped with a 70mm. photofluorograph, making in all six X-ray units now available to the State health program for its case-finding effort. The other appurtenances of this mobile unit consist of complete dark room, six dressing cubicles, clerk's desk and chair, heat, light, running water, ample storage and clothes closets, as well as a motor-driven generator providing electric current. This unit has confined its activities to smaller industrial and community groups.

This year many local health officers, tuberculosis leagues, and other health and civic-minded groups became an integral part of the case-finding program. The above groups, through their splendid cooperation and organizational work, have successfully carried on many case-finding efforts. More and more the Division becomes what it should be—a service organization with the local case-finding program being organized by local personnel. To those who have participated in this effort, we take this opportunity to extend our many thanks for their cooperation.

There now remains but one county in which our program has not been set in motion.

We are also indebted to the Negro Health Program of this Department as a cooperating agency in organizing local case-finding programs.

The central office remains at its previous location at 172 West State Street, Trenton, the central dark room at 141 North Warren Street, Trenton, and the warehouse at West Hanover and Barnes Streets, Trenton. Additional facilities have also been incorporated during the fiscal year 1947. We now have an X-ray testing room at 17-19 West State Street and a sub-depot developing room has been established in the Camden City Hall through the cooperation of the Camden County Tuberculosis League and the Camden City Health Department. We are deeply indebted to both these latter groups in making the sub-depot possible.

The staff of the Division now includes the Chief, a medical assistant, an administrative assistant, technicians, clerks, etc. The administrative assistant has done a splendid job in meeting with labor and management groups, tuberculosis leagues, and local health officials in organizing the case-finding effort. The addition of a medical assistant has been a great help not only in interpreting the ever-increasing load of X-ray films that constantly flows through this office, but in his assistance in the over-all planning of the work.

The clerical staff, though cramped for space and not sufficient in number, has continued faithfully the execution of its duties through the fine leadership of our principal clerk. It is hoped that soon an Assistant Division Chief will be allowed, for such a position is sorely needed.

In the past fiscal year, 200 surveys were conducted. This brings the total to 282. In the past fiscal year, 101,147 persons were X-rayed, making a total of 254,684 as of June 30, 1947.

During the fiscal year 1947, there were established the following six clinics: Burlington, Hammonton, Mays Landing, North Arlington, Paterson, and Trenton. These clinics were established through the cooperation of the State Department of Institutions and Agencies, the Bureau of Local Health Services of our own State Department of Health, and various local health officials and tuberculosis leagues. We wish to thank all those who made these clinics possible and look forward to the establishment of further clinics during the fiscal year 1947.

Attached is a statistical summary of the X-ray service of this Division since the inception of this program in August, 1942. This summary merely gives interpretations made by this Division of the screening of X-ray film.

The follow-up of these cases has been carried on by the Bureau of Local Health Services. The Bureau of Local Health Services follows these individuals through the cooperation of local practicing physicians, local health

officers, and tuberculosis leagues. Since the case-finding effort has increased, the Bureau of Local Health Services naturally has a greater amount of work. Throughout the year, despite many hardships with limited personnel and facilities, they have continued their splendid cooperation in establishing the final diagnoses in those cases uncovered by this Division. We are deeply indebted to them for their untiring efforts.

SUMMARY OF X-RAY SURVEYS

		<i>X-rayed</i>
I. Number of surveys completed	282	
A. Industrial surveys	186	
B. Other groups	72	
C. Institutional groups	24	
II. Number of persons X-rayed	254,684	
A. Persons on whom one or more readable X-ray plates were obtained	251,617	98.7%
B. Persons on whom one or more X-ray plates were declared not readable	3,067	1.3%
III. Surveys by counties—20 counties out of 21 represented;		

<i>County</i>	<i>No. Surveys</i>	<i>No. Persons X-rayed</i>
Atlantic	18	5,976
Bergen	50	16,635
Burlington	21	11,859
Camden	27	50,618
Cape May	1	687
Cumberland	13	11,893
Essex	35	51,428
Gloucester	3	2,799
Hudson	7	4,895
Hunterdon	2	2,548
Mercer	6	5,616
Middlesex	24	22,126
Monmouth	30	29,052
Morris	1	958
Ocean	1	507
Passaic	3	10,179
Salem	7	4,665
Somerset	13	9,924
Union	18	10,601
Warren	1	756
New York City	1	962
	282	254,684

		<i>Persons</i>	
IV. X-ray film used (plates taken)		266,365	
A. 35mm. plates taken	86,958		
B. 70mm. plates taken	95,206		
C. 4 x 5 plates taken	79,664		
D. 14 x 17 plates taken	4,537		
V. Abnormalities:			
A. Pulmonary	5,765	2.29%	
1. Probably tuberculous	3,326	1.32%	
a. Minimal	2,419	.96%	
(1) Probably active ..	549		
(2) Activity doubtful ..	1,159		
(3) Probably inactive ..	711		
b. Moderately advanced	801	.32%	
(1) Probably active ..	551		
(2) Activity doubtful ..	200		
(3) Probably inactive ..	50		
c. Far advanced, active	106	.04%	
<hr/>			
Significant tuberculosis findings classified by extent and activity:			
1. Probably reinfection tuberculosis	3,326	1.32%	
<i>As to Extent:</i>			
a. Minimal tuberculosis	2,419 or 72.74%		
b. Moderately advanced tuberculosis	801 or 24.08%		
c. Far advanced (active)	106 or 3.18%		
<i>As to Activity:</i>			
a. Probably active	1,206 or 36.26%	.48%	
b. Activity questionable	1,359 or 40.86%	.54%	
c. Probably inactive	761 or 22.88%	.30%	
<hr/>			
2. Possibly tuberculous	1,601	.64%	
a. Tuberculosis suspect (submin.)	1,254		
b. Gross lesions not typically tuberculous	288		
c. Disseminated multiple intrapulmonic calcific deposits	59		
3. Probably non-tuberculous	838	.33%	
a. Suspected pneumoconiosis	215		
b. Suspected neoplastic masses	176		
c. Suspected bronchiectasis	148		
d. Suspected lung cysts	15		
e. Suspected emphysema	28		
f. Miscellaneous	256		

			<i>of Total</i>
B. Pleura		529	.21%
1. Suspected fluid	70		
2. Calcification	120		
3. Extreme thickening	339		
4. Miscellaneous	0		
C. Diaphragmatic		418	.16%
1. Marked deformity due to adherence....	244		
2. Suspected eventration	61		
3. Hepatodiaphragmatic interposition of gas containing viscus	99		
4. Miscellaneous	14		
D. Ribs, clavicles, vertebrae		2,678	1.06%
1. Anomalies	1,518		
2. Fractures	74		
3. Scoliosis	1,021		
4. Miscellaneous	63		
E. Operative		99	.03%
1. Pneumothorax	35		
2. Thoracotomy	34		
3. Thoracoplasty	21		
4. Pneumonectomy	4		
5. Miscellaneous	4		
F. Cardio-vascular		10,223	4.06%
1. Cardiac enlargement	5,454		
2. Aortic enlargement	4,684		
3. Possible aortic aneurysm	11		
4. Dextrocardia	49		
5. Miscellaneous	25		
VI. Number of persons referred for follow-up		5,627	

Report of Division of Venereal Disease Control

July 1, 1946-June 30, 1947

By A. J. CASSELMAN, M.D., Dr. P.H., *Acting Chief*

The Penicillin Treatment Program is discussed first in this report as it is the activity receiving major emphasis. A summary of the accomplishments of the three years the plan has been in operation seems appropriate at this time because of the probability that the present program will be modified in the coming year and hospitalization replaced, at least in part, by ambulatory treatment of syphilis.

It was in July, 1944, through the allocation of federal funds, that a state-wide program of hospitalization and penicillin treatment of both syphilis and gonorrhea was inaugurated in New Jersey. In the succeeding three years 3,539 cases of early infectious syphilis have been treated under the state plan. In addition to these persons (civilians) an additional 792 men separated from Fort Dix and other military establishments in the State were treated. About one-third of these were permanent residents of New Jersey and would have been a health problem for the health officials in New Jersey communities if they had not been referred immediately from the separation center to the hospital and treated before their return to civilian life.

PENICILLIN IN THE TREATMENT OF GONORRHEA

The original plan called for the hospitalization of cases of gonorrhea also. Eight hundred and three cases were hospitalized and treated with penicillin during the year ending June 30, 1945. By that time treatment on an out-patient basis had been proven satisfactory and was adopted in this State. Since then, penicillin has been provided to private practitioners and to clinics for the treatment of 8,261 cases of gonorrhea on an out-patient basis.

This year the procedure has been to send 200,000 units of aqueous penicillin to the private practitioner upon the receipt of a report of a case of gonorrhea. The physician is asked to reserve this for the next case of gonorrhea he treats and to give it in two or three injections over a period of two to four hours.

Beginning October, 1946, P. O. B. (penicillin in oil and beeswax) has been supplied to clinics for the treatment of gonorrhoea. This distribution was limited to clinics because funds were available only for the purchase of a relatively small number of 10 cc. vials, each of which provides theoretically for the treatment of ten patients in the recommended dosage of 1 cc. each in a single injection. Probably not more than five to eight doses per vial have been used on the average because of difficulties of administration. P. O. B. has been on the market in convenient single dose outfits and many physicians are using these in private practice, but the cost has been prohibitive for free distribution.

TABLE No. 1

CASES TREATED WITH PENICILLIN UNDER THE STATE PLAN

	<i>Gonorrhoea</i>		<i>Syphilis (all hospitalized)</i>	
	<i>Hospitalized</i>	<i>Out-Patient</i>	<i>Civilians</i>	<i>Separatees</i>
July-December, 1944	357	....	95	....
January-June, 1945	446	....	168	....
July-December, 1945 .....	...	1,023	408	256
January-June, 1946 .....	...	2,323	691	433
July-December, 1946 .....	...	2,183	1,028	103
January-June, 1947 .....	...	2,732	1,149	....
Total	803	8,261	3,539	792

GENERAL HOSPITALS HAVE COOPERATED

When the plan of hospitalization for cases of syphilis was started, special hospitals, known as rapid treatment centers, were being set up in many States, particularly in the South. This was given serious consideration for New Jersey, and the Lindbergh home near Hopewell and the Royal Pines Hospital at Pinewald were among places inspected for the purpose of establishing a special hospital for rapid treatment of venereal diseases. Then a canvass was made of existing hospitals, to find out how many would accept V. D. patients at the same financial rate paid by the Division of Maternal and Child Care under the EMIC plan. This was the plan adopted and experience has shown the wisdom in this State of using existing facilities rather than operating special hospitals. Forty-five hospitals have cooperated by accepting one or more patients as they have had beds available since the plan was inaugurated.

The value of using general hospitals is self-evident from the point of convenience and self-respect to the patient and has undoubtedly had value in familiarizing many physicians with methods of treatment based on experimental work of the Army, Navy and Public Health Service. This must have benefited many private patients, although we have no data as to the number treated without financial aid from the State.

Might we have found more cases for penicillin treatment if a diagnostic fee had been paid to physicians? The Public Health Services approved the use of federal funds for such a purpose, but as the New Jersey Medical Society felt this to be contrary to medical practice in this State the plan was abandoned.

At Medical Center, Jersey City, a well equipped, comfortable modern ward was set aside for the treatment of separatees. This has been used also when beds were not available in local hospitals in other communities or if the patient preferred to be hospitalized at a distance from his home, and for migrant workers. Without the facilities of Medical Center to supplement hospitals in other parts of the State, the program would have been greatly handicapped and probably we would have been obliged to establish and operate a rapid treatment center.

An important part of the program has been the interviewing of each patient for contact information. With the quick cure which penicillin affords in a large percentage of cases, it is particularly important to trace the contact or contacts of the individual and treat them also, otherwise reinfection is very likely to occur. Public health nurses of the Division did most of this interviewing.

Patients have been treated from every county in the State, as shown for the year 1946 by Table No. 2. In some counties, such as Atlantic County, in which cases are not accepted by the Atlantic City hospitals, the use of the state rapid treatment plan has been less than in Essex County, where the excellent facilities of the Essex County Isolation Hospital have been freely available.

TABLE No. 2

PRIMARY AND SECONDARY CASES OF SYPHILIS REPORTED,* AND PENICILLIN TREATED, BY COUNTY IN 1946

County	No. Cases Reported by Physicians	No. Cases Penicillin Treated	Per Cent Penicillin Treated	Total
				No. Syphilis Cases* Penicillin Treated in 1946†
Atlantic	91	13	14.3	34
Bergen	88	44	50.0	76
Burlington	47	17	36.2	34
Camden	108	46	42.6	95
Cape May	13	1	7.7	5
Cumberland	58	31	53.4	70
Essex	693	373	53.8	526
Gloucester	35	9	25.7	23
Hudson	207	97	46.9	169
Hunterdon	4	..	0.0	1
Mercer	115	44	38.3	97
Middlesex	84	31	36.9	82
Monmouth	145	66	45.5	193
Morris	29	11	37.9	28
Ocean	11	2	18.2	5
Passaic	127	73	57.4	122
Salem	24	11	45.8	23
Somerset	14	6	42.9	31
Sussex	7	5	71.4	6
Union	104	47	45.2	85
Warren	6	2	33.3	8
Total	2,010	929	46.2	1,713

* Migrant workers included.

† Primary, secondary, early latent, syphilis in pregnancy, and a few cases of neuro-syphilis and congenital syphilis.

THE FUTURE OF PENICILLIN TREATMENT

The development of P. O. B. suggests that hospitalization of syphilis probably has reached its peak and we may expect the hospital program to decrease in the future. Many physicians are now treating syphilis with P. O. B. on an ambulatory basis and the experimental work indicates that this method of treatment is as effective as the present plan of injecting an aqueous solution every two hours, which it is practical to do only in a hospital.

Recommendations of the Division for the use of P. O. B. in early syphilis call for the injection of 600,000 units daily in a single injection for ten days.

A high cure rate is obtained in gonorrhea by a single injection of 300,000 units of P. O. B. Preparations that are easy to use because of greater fluidity than the early preparations are now on the market, and prices for both multiple and single dose vials are lower. It is hoped that in the very near future funds will be available to the State Department of Health to supply P. O. B. to clinics and physicians so that no infected person will be denied this rapid, convenient, and therapeutically effective treatment for both syphilis and gonorrhea because of lack of funds.

Late cases of syphilis too should be included in our treatment program which at present is restricted to infectious cases. Penicillin is useful in the late as well as the early cases but funds have not been available to pay for necessary hospitalization and penicillin. Untreated or inadequately treated syphilis still is a cause of mental disease, heart disease, and other disabling conditions which cause the patient to become a community charge. A more liberal program of penicillin treatment could prevent some of these cases of impaired functioning and premature death.

STANDARD DRUGS STILL BEING USED

With the increased use of penicillin in the treatment of syphilis, a decrease in the use of arsenicals and heavy metals was expected. However, requests from physicians and clinics for these "standard" drugs has continued at about the same level as before. Should the distribution of these drugs be discontinued and funds conserved for the purchase of penicillin? This has been considered from time to time and the decision has been to continue the distribution of "standard" drugs as heretofore. Treatment failures with the use of penicillin alone have been noted by competent observers in 15% of cases of less than one year's duration and a higher percentage in cases of longer duration.

On June 16, 1946, therefore, a letter was sent to hospitals, recommending that penicillin treatment be supplemented with three injections of an arsenical and three injections of bismuth during the five-day period of hospitalization. As an added safeguard against treatment failure, post-hospital treatment by weekly injections for six months of alternating courses of an arsenical and bismuth has been suggested to physicians. The suggestion has also been made to physicians that an initial dose of an arsenical be given as soon as a diagnosis is made, to eliminate the possibility of infecting others while awaiting hospitalization and the necessity for isolation techniques in the hospital.

In view of this trend toward a combination of penicillin and "standard" drugs, distribution of the "standard" drugs is being continued. One advantage of the "standard" drugs, from an administrative standpoint, is their usefulness only in the treatment of syphilis, as compared to the difficulty of restricting the use of penicillin.

MILITARY CONTACTS

During the war years, cooperation with military authorities in the follow-up of persons named as contacts by infected military personnel has been a major part of the program. The number of such reported contacts dropped during the past year, as would be expected in view of the decrease of military personnel. A table showing the distribution of these contacts has been included in past annual reports. As this year is the last year in which the program probably will be significant, the distribution of these contacts for the year is given in Table No. 3, with a recapitulation of the figures for the two previous years.

Of the 590 military contacts referred for investigation, taverns were named as the "meeting place" in 265 cases. This information was referred immediately to the Department of Alcoholic Beverage Control. In cases in which the information indicated a need for investigation in reference to prostitution, recommendation was made to the local health officer that local police or State Police be asked to investigate.

TABLE No. 3

MILITARY CONTACTS BY COUNTY AND LARGE CITY

(NOTE: This should not be taken as an indication of the relative prevalence of venereal diseases in these localities. The rate of infection of military personnel is influenced by many factors, such as the proximity of military establishments, adequacy of recreational facilities, popularity of the place of leaves and furloughs, amount of prostitution, etc.)

County and City	July 1, 1944	July 1, 1945	July 1, 1946		
	June 30, 1945	June 30, 1946	June 30, 1947		
Atlantic County	194	162	39		
(Atlantic City)	185	157	35		
Bergen County	55	30	12		
Burlington County	47	63	30		
Camden County	221	260	44		
(Camden)	168	212	39		
Cape May County	63	66	8		
Cumberland County	105	65	9		
Essex County	727	638	184		
(Newark)	618	550	170		
Gloucester County	34	20	5		
Hudson County	219	193	35		
(Jersey City)	113	106	19		
Hunterdon County	6	5	3		
Mercer County	227	178	74		
(Trenton)	215	172	69		
Middlesex County	69	93	37		
(New Brunswick)	42	66	26		

County and City	July 1, 1944	July 1, 1945	July 1, 1946		
	June 30, 1945	June 30, 1946	June 30, 1947		
Monmouth County	275	211	55		
(Asbury Park and Neptune)	168	121	22		
Morris County	49	39	6		
Ocean County	22	17	3		
Passaic County	65	69	12		
(Paterson)	47	50	9		
Salem County	35	21	6		
Somerset County	10	9	..		
Sussex County	9	7	..		
Union County	92	86	27		
Warren County	7	5	1		
Total	2,531	2,237	590		

Reports of the results of investigation of military contacts were received during the year for 659 cases, some of which are for cases of the preceding year in which the investigation was completed during the present year:

Placed under treatment	173
Not infected	87
Placed in penal institutions	10
Unable to locate	300
No disposition reported	86
Other	3

A representative of the Division assisted police officials by interviewing 64 contacts suspected of being prostitutes. In 34 of these cases this assistance was requested directly by the police officials; the other cases were investigated because of information on contact reports from military and other sources. Jail sentences were given to 32 of these persons and eight were committed to state institutions. This assistance in specific cases and conferences as to the disposition of other cases gave opportunity for interpretation of the venereal disease laws with police officials.

CIVILIAN CONTACTS

The decrease in the number of persons named as venereal disease contacts by military personnel, as shown by Table No. 3, is offset by an increase in the number of contacts named by infected civilians. The 2,700 such persons in New Jersey are tabulated by county in Table No. 4. In addition to these, 1,015 persons with out-of-State addresses were reported as contacts and were referred to the State Department of Health having jurisdiction.

TABLE No. 4

CIVILIAN CONTACTS BY COUNTY AND LARGE CITY, JULY 1, 1946-JUNE 30, 1947

(NOTE: These figures should not be taken as an indication of the relative prevalence of venereal disease in these localities. The number of contacts reported depends, in part, upon the case-finding activity in that locality.)

Atlantic County	250
(Atlantic City—191)	
Bergen County	145
Burlington County	101
Camden County	194
(Camden—150)	
Cape May County	14
Cumberland County	132
Essex County	756
(Newark—659)	
Gloucester County	51
Hudson County	172
(Jersey City—67)	
Hunterdon County	5
Mercer County	156
(Trenton—123)	
Middlesex County	89
(New Brunswick—19)	
Monmouth County	173
(Asbury Park and Neptune—44)	
Morris County	37
Ocean County	11
Passaic County	116
(Paterson—85)	
Salem County	48
Somerset County	31
Sussex County	8
Union County	203
Warren County	8
	2,700
Out-of-State	1,015
Total	3,715

To measure completely the results of contact-tracing is impossible, but an effort has been made in Table No. 5 to evaluate the program. As a result of being interviewed by a public health nurse, the alleged contact may place himself under medical care in another city, such as New York or Philadelphia, where he is not known, and it is sometimes difficult to complete his record. He may influence a group of his friends to have medical examinations, or may persuade to seek medical care a person or persons known by him to be

infected. This assumption of responsibility by the individual for his own medical needs and for educating others is a highly desirable result which does not lend itself to statistical measurement.

TABLE No. 5

RESULTS OF INVESTIGATION OF CONTACT INFORMATION
(See Table No. 4)

Brought or returned to treatment	929
Previously untreated	442
Previously treated	372
Not specified	115
Under treatment at time of investigation	19
Located—uncooperative (not examined)	3
Not infected	714
Not located	872
Not known at address	152
Fictitious address	125
Old address—suspect left	29
Moved out of jurisdiction	108
Insufficient information to begin investigation	458
Other disposition	83
Satisfactory	22
Unsatisfactory	61
Disposition unknown	80
	2,700

PUBLIC HEALTH NURSES IN CASE-FINDING PROGRAM

Public health nurses of this Division have given full time assistance to local health departments this year in the venereal disease case-finding program in the following areas: The northern part of Hudson County and Hoboken, the eastern part of Bergen County, the western part of Bergen County, Gloucester and Cumberland Counties, Salem County, Camden and vicinity, Morris County, Plainfield and vicinity, Newark (private physician program), Monmouth County, Paterson and vicinity, Passaic and vicinity, Trenton and Mercer County, Atlantic City, and Somerset County.

The function of these nurses in interviewing patients for contact information and in following up such information has been recognized for years as essential in the operation of any venereal disease clinic. As penicillin makes it more practical than heretofore to treat venereal diseases in private practice, greater cooperation than ever before from practicing physicians will be necessary if effective epidemiologic work is to be done. The quick cures which penicillin effects make case-holding relatively unimportant and it is now possible to concentrate efforts on case finding. Unless physicians report cases

promptly and accept the service of trained interviewers, the full possibilities in tracing contacts quickly will not be accomplished. The optimistic hopes of some health officials that rapid treatment with penicillin would quickly control the venereal diseases has not materialized. Rapid treatment must be combined with an intensive case-finding effort, in which private physicians are the key persons.

AGRICULTURAL MIGRANT WORKERS

The special clinics for migrant agricultural workers of Mercer, Monmouth and Middlesex Counties were operated again this year. The clinics were held in Cranbury, Imlaystown and Freehold from July 1 to September 20, 1946. A total of 2,415 persons were examined for venereal diseases, as compared to 1,816 last year.

TABLE No. 6

CRANBURY, IMLAYSTOWN AND FREEHOLD CLINICS FOR MIGRANT WORKERS

Number of persons examined	2,415	100%
Number of persons with positive serologic tests for syphilis	429	17%
Diagnosed and classified	315	
Primary and secondary	21	
Early latent	150	
Late latent	137	
Congenital	7	
Hospitalized for penicillin treatment	133	
Number cases of gonorrhoea	273	11%
Cases of other venereal diseases, diagnosed and treated	8	

All cases of syphilis of less than four years' duration were offered hospitalization and penicillin treatment, and 133 were so treated. Those cases of longer duration were referred to private physicians or clinics for treatment.

Cultures for gonococci were made routinely on women and on men with a urethral discharge. Treatment consisted of a single injection of P. O. B.

All of the diagnosed patients were interviewed for contact information. The crowded conditions made interviewing difficult in the Imlaystown and Cranbury clinics, but, in spite of poor conditions, useful information was secured about 221 contacts. Tracing these contacts among a group of persons who migrate from place to place also is difficult, but 107 of the named contacts were brought into the clinics for examination, among whom 15 cases of syphilis were found and 23 cases of gonorrhoea. Complete reports are not available for those who were referred to other districts or to other states.

Through the cooperation of other divisions of the State Department of Health this year for the first time the health services of the clinics were extended to include examination of some of the migrant workers for malaria, tuberculosis, cancer, dental caries, and prenatal care.

The Division assisted the local health departments in examination of hotel employees in Lakewood, oyster shuckers at Port Norris and Maurice River, employees in nine industries, a group of railroad employees, and members of two of the race tracks. Most of these were migrant workers.

Throughout the State spot inspections were made of industries, hotels and farms to check compliance with the migrant labor law (R. S. 26:4-49.5 and 49.6). Circular letters were sent to 6,500 employers or potential employers of migrant labor reminding them of the provisions of the law. Twenty-six talks accompanied by motion pictures were given by the Red Cross to groups of migrant laborers.

INTERNATIONAL MIGRANTS

Through clinics operated by the Atlantic Seaboard Agricultural Workers Health Association, Inc., in the southern part of the State, 38 cases of early syphilis were found among international migrants. Cost of hospitalization of these patients was borne by this Division and penicillin was supplied by A. S. A. W. H. A. Seventy-five American migrants working near A. S. A. W. H. A. clinics were examined in these clinics and three cases of gonorrhoea, one case of infectious syphilis, and seven cases of non-infectious syphilis were found.

EXAMINATION OF OTHER GROUPS

At Trenton and Paterson mass voluntary blood testing programs were carried on in cooperation with the Negro Health Program. Another survey was made in Madison in cooperation with the Red Cross.

In these groups a total of 5,488 blood tests were taken, of which 599 were positive and 390 gave doubtful results. Examinations for gonorrhoea were made also in some of these groups.

Many industries are doing pre-employment blood tests routinely. These are not always marked so that they can be identified as pre-employment or employment tests; however, 3,722 positive or doubtful specimens submitted to the State laboratory could be checked as from 140 different large industries. According to our records, 33 of these industries had not previously submitted specimens. Follow-up of the 2,500 of these persons who had positive tests and are residents of New Jersey was carried out by a letter to the individual, his physician, and to the local health officer or public health nurse if it appeared that needed medical care was not being received.

STANDARDIZATION OF SEROLOGIC TESTS

One of the chief difficulties in the serologic diagnosis of syphilis has been the wide variation in sensitivity of the serologic tests for syphilis. There seems little excuse for such wide variations in sensitivity because of the great

stability of most of the antigens used in the tests for syphilis. The writer showed in 1938 at the Hot Springs Serologic Conference that a stable standardized syphilitic serum (dried by the lyophile process) could be used to produce a common sensitivity in all laboratories.

On March 16, 1947, the board of trustees of the Medical Society of New Jersey unanimously approved the following resolution:

"That a diagnosis of syphilis not be made on serologic evidence unless two Mazzini tests or tests of similar sensitivity, taken not less than two weeks apart, are both four plus."

In order to obtain similar sensitivities all New Jersey laboratories may request regular supplies of Mazzini antigen and buffered saline for all their tests from the Division of Venereal Disease Control. During the past year 81 different laboratories received 7,620 cc. of standardized Mazzini antigen with the necessary amounts of buffered saline. With the use of approximately similar techniques these laboratories should achieve a common sensitivity for their tests for syphilis. If standardized stable lyophile serum could be freely supplied to all laboratories there should be no difficulty in bringing all the tests to a common sensitivity.

Standardized lyophile syphilitic serum has not been supplied this year because of budgetary insufficiency. The Bureau of Bacteriology, however, has been checking laboratories with liquid serums of known titer, and has been supplying laboratories with liquid syphilitic serum upon request.

TABLE No. 7

TOTAL NUMBER OF BLOOD TESTS FOR SYPHILIS OF ALL LABORATORIES			
	Total	Positive Results	Per Cent Positive
1939	507,801	47,081	9.28
1940	534,729	40,730	7.62
1941*	729,888	47,082	6.45
1942*	1,012,982	57,189	5.65
1943*	930,830	45,532	4.89
1944	563,530	38,740	6.87
1945	546,185	34,126	6.25
1946	703,040	36,383	5.17
1947 (Jan.-June)	368,896	21,859	5.92

* Includes tests for Selective Service.

QUANTITATIVE SEROLOGIC TESTS

The use of rapid treatment with penicillin has emphasized the value of the quantitative serologic tests for syphilis.

Quantitative examinations on all positive tests are not yet routine in this State although such a procedure is eminently desirable. Budgetary difficulties are the sole cause of the delay. However, the state laboratory is trying to give the service for penicillin-treated cases when physicians request it.

CULTURE TESTS FOR GONORRHEA

The gonococcus culture program is reviewed in this annual report because of the probability that the service will be discontinued next year.

For years unsatisfactory methods of diagnosis and treatment of gonorrhea baffled physicians and health officials. In an effort to help solve the problem of diagnosis, experimental work in culturing the gonococcus was undertaken in 1942. In 1943 special laboratories were established in Newark and Trenton to furnish this service to clinics and practicing physicians. By that time a satisfactory method for mailing specimens had been developed, so that physicians in all parts of the state could use the service. Physicians have appreciated this laboratory aid to diagnosis, which proved to be much more reliable than smears, as evidenced by the increased use of the service.

TABLE No. 8

NUMBER OF GONOCOCCUS CULTURE SPECIMENS RECEIVED

	Mailed Specimens	Delivered Specimens	Total
January-June, 1943	1,463	2,108	3,571
July-December, 1943	2,694	2,449	5,143
January-June, 1944	4,196	3,003	7,199
July-December, 1944	6,585	3,068	9,653
January-June, 1945	7,435	3,929	11,364
July-December, 1945	9,182	4,006	13,188
January-June, 1946	10,474	4,574	15,048
July-December, 1946	12,342	4,725	17,067
January-June, 1947	11,133	4,212	15,345
	65,504	32,074	97,578

With the high rate of cure now possible by a single injection of penicillin, physicians are urged to treat gonorrhea on suspicion. Retreatment is practical if clinical symptoms persist. The confirmation of the diagnosis by laboratory test, therefore, is now a research rather than a practical control measure. It is believed that funds budgeted for this service can be used to better advantage in other ways in the future.

Report of the Bureau of Vital Statistics

Statistics for the Calendar Year 1946

By WALTER R. SCOTT, *State Registrar and Chief*

A Bureau of Vital Statistics has existed in New Jersey since 1879 and a statistical report has been published each year. The statistics compiled by the Bureau during this long period have been partly responsible for activities which caused a decline in the general death rate from 18.4 per 1,000 population in 1879 to 10.7 in 1946, and in the rate from tuberculosis of the respiratory system from 251.0 to 35.7 per 100,000 population.

The Bureau has the custody of more than ten million records of births, marriages, and deaths which date back to 1848. The records for the period 1848 to 1887 were collected by the Secretary of State and turned over to the Bureau when the health laws were revised by the Legislature during the session of 1887. The new law provided for a State Board of Health and Bureau of Vital Statistics. Prior to that year the annual report was prepared from records not in the custody of the Bureau.

During the past year the Bureau supervised the issuance of marriage licenses and the registration of births, marriages and deaths throughout the State and supplied to local registrars and others the forms necessary to obtain registration.

Monthly and annual statistical tables were compiled and published and in addition a large amount of special statistical data was compiled for the use of public and private institutions and agencies interested in disease and accident prevention. Electrical tabulation machinery, which was installed in 1915, was used in the preparation of the data. The statistical work done by the Bureau has been invaluable to other bureaus of the Department, particularly the Bureau of Maternal and Child Health in the reduction of infant and maternal mortality.

The Bureau supplied photostatic service to other bureaus and divisions of the Department and allowed the Division of Venereal Disease Control the use of the electrical tabulating equipment for the preparation of statistical studies and reports.

At the request of the Division of Cancer Control photostatic copies of certificates of deaths due to cancer and other malignant tumors were prepared for deaths during November 1946 and subsequent months. Starting on January 1, 1947, photostatic copies of certificates of deaths due to reportable diseases were prepared and forwarded to the Bureau of Local Health Services. Previous to that date the Local Health Services Bureau had borrowed the original certificates and copied needed information on cards.

Certified copies of birth, marriage and death records were issued individuals and interested organizations and agencies. During the fiscal year 1946-47, 38,369 searches of the records were made and copies of certificates found issued for which \$23,712.48 was received in fees. A total of 14,657 of the searches and certified copies were for purposes exempt from charge by law. The revenue of the Bureau increased approximately \$200 over the amount collected during the preceding year. A 6% decrease occurred in the number of certificates issued without charge, which records were used mainly for obtaining dependency allotments and for claims against the Government due to service with the armed forces.

During the year, the Bureau received, examined, classified, tabulated, indexed and permanently filed approximately 215,000 birth, marriage and death certificates, a small part of which records were for unreported births which occurred during previous years. The annual growth of the records requires approximately 200 cubic feet of storage space.

More than 120,000 premarital certificate forms were received and examined, a duty placed upon the Bureau at the adoption of the law requiring an examination for syphilis prior to the issuance of a marriage license.

A total of 1,256 original birth records were sealed and new certificates containing the names obtained by adoption made, as prescribed by section 26:8-40.1 of the Revised Statutes.

The Bureau field representative made 84 calls on local registrars and 18 calls on district health officers, county clerks, hospital authorities, judges and clergymen.

The additional clerical assistance requested to comply with P. L. 1945, c. 202, which requires a monthly report of the names of deceased veterans with the dates and places of burial, cremation or removal of such deceased veterans, and the wars in which they served, to the county superintendents of soldiers' burials still has not been provided. The work made mandatory by law has been done at the expense of a delay in the preparation of cross-indexes vital to the searching process. A total of 1,826 veterans were buried in New Jersey cemeteries during the year.

The Bureau is greatly handicapped by a lack of trained personnel and adequate working quarters. The electrical tabulating machinery is operated in a small room which also houses the voluminous files of the Bureau of Engineering and two file clerks. Exacting statistical work cannot be done efficiently where other persons are present, and personnel other than machine operators should not be subjected to the noise of the electrically operated equipment. Space, equipment and personnel should be provided in order that birth and marriage data could be punched on cards, which after use for statistical purposes, could be used for the preparation of indexes. New Jersey, one of the earliest registration States, is far behind some States in the preparation and dissemination of statistical data.

GENERAL SUMMARY

	Calendar Years			
	1920	1930	1940	1946
Births registered, tabulated and indexed	76,431	68,282	59,328	95,044
Stillbirths registered, tabulated and indexed	3,221	2,647	1,543	2,127
Marriages registered, tabulated and indexed	31,327	28,499	41,059	61,020
Deaths registered, tabulated and indexed	40,820	43,190	45,206	46,261
Total records registered, tabulated and permanently filed	151,799	142,618	147,136	204,452
Searches made and/or certified copies issued for which fees were received	4,664	10,523	38,431	23,712
Certified copies issued and searches made in pension and other cases for which no fees were received	4,232	6,938	11,300	16,619
Fees received for searches and certified copies	\$4,051	\$9,601	\$31,614	\$23,281.57

CHARTS AND TABLES—1946

- Table 1. Births, marriages, deaths and rates, 1879-1946.
- Table 1a. Births, marriages and deaths by months.
- Table 1b. Births, marriages, deaths and deaths under one year of age by counties, cities, boroughs and townships.
- Table 2. Deaths by age groups, with the percentage of each group of total deaths: 1946.
- Chart 1. Births and deaths per 1,000 population, 1880-1946.
- Table 3. Deaths of infants under five years of age and percentage of total deaths, 1904-1946.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1946.
- Table 5. Deaths under one month, stillbirths and maternal deaths per 1,000 live births, by counties and certain cities.
- Table 7. Births, deaths under one year and infant mortality rates, by counties and cities.

- Chart 2. Deaths from typhoid fever per 100,000 population, 1880-1944.
 Table 8. Comparison between typhoid fever death rates in New Jersey and the United States Registration Area, 1937-1946.
 Table 10. Typhoid fever rates by counties, 1937-1946.
 Chart 3. Deaths from measles per 100,000 population, 1880-1944.
 Chart 4. Deaths from scarlet fever per 100,000 population, 1880-1944.
 Chart 5. Deaths from whooping cough per 100,000 population, 1880-1944.
 Chart 6. Deaths from diphtheria per 100,000 population, 1880-1944.
 Chart 7. Deaths from respiratory tuberculosis per 100,000 population, 1880-1944.
 Table 12. Cancer and other malignant tumors by sex, age period and organs affected.
 Table 12a. Cancer and other malignant tumors by part of body affected and color of decedent.
 Chart 8. Deaths from cancer and other malignant tumors per 100,000 population, 1880-1944.
 Table 13a. Violent or accidental deaths.
 Table 13b. Motor vehicle fatalities.
 Table 13c. Accidental deaths by type of injury.
 Table 13d. Accidental deaths by counties.
 Table 13e. Accidental deaths by months.
 Table 13f. Accidental deaths by ages.
 Table 14. Percentage of the various causes of total deaths and of each sex of total.
 Table 15. Death rates, total, white and colored, from important causes, per 100,000 total, white and colored population.
 Table 16. Deaths (exclusive of stillbirths) by causes and months of deaths.
 Table 17. Deaths (exclusive of stillbirths) from each cause of the Abridged International List, by age, sex, and color.
 Table 18. Deaths (exclusive of stillbirths) by causes, by days, weeks and months of the first year of life.
 Table 19. Deaths (exclusive of stillbirths) under one year of age, by causes and months of death.
 Table 20. Deaths (adjusted for residence) from each cause, Detailed International List, in the counties of New Jersey and selected municipalities of 5,000 or more inhabitants in 1930.
 Table 22. Deaths by causes, sex, color and age periods in the counties and cities having 50,000 or more inhabitants in 1940. (County figures include cities which follow):

<i>Atlantic County</i>	<i>Essex County</i>	<i>Hunterdon County</i>	<i>Passaic County</i>
<i>Atlantic City</i>	<i>East Orange</i>		<i>Passaic City</i>
<i>Bergen County</i>	<i>Irvington</i>	<i>Mercer County</i>	<i>Paterson</i>
	<i>Newark</i>	<i>Trenton</i>	<i>Salem County</i>
<i>Burlington County</i>	<i>Gloucester County</i>	<i>Middlesex County</i>	<i>Somerset County</i>
<i>Camden County</i>	<i>Hudson County</i>	<i>Monmouth County</i>	<i>Sussex County</i>
<i>Camden City</i>	<i>Bayonne</i>		<i>Union County</i>
<i>Cape May County</i>	<i>Hoboken</i>	<i>Morris County</i>	<i>Elizabeth</i>
	<i>Jersey City</i>		<i>Warren County</i>
<i>Cumberland County</i>	<i>Union City</i>	<i>Ocean County</i>	

Population.—In computing rates for the State, the U. S. Census Bureau estimate of 4,304,261 as of July 1, 1946, was used. Armed forces stationed in the State were included; residents of the State serving with the armed forces overseas were excluded. Information concerning the computing method may be obtained by referring to Current Population Reports, Series P-25, No. 2, issued by the Bureau of the Census on August 15, 1947.

Since county population estimates for 1946 were not available, county death rates were based on estimates of county populations as of November 1, 1943. These figures, of civilian population only, were estimated by use of total registration for war ration book number four.

It has been impossible to decide upon any equitable basis for estimating the 1946 population of municipalities. Actual census counts of April 1, 1940 have been used in computing rates, and such rates are probably exaggerated to some extent.

Births.—During 1946, 95,044 live births were reported, with a resultant rate of 22.1 per 1,000 population. This was a numerical increase of 18,049 over last year. The 1945 total of 76,995 was 1,343 more than occurred in 1944. Birth rates, which decreased from 25.1 in 1917 to 13.2 in 1936, have shown a rising trend since the latter year.

The number of illegitimate births reported for 1946 was 2,258 of which 982 were babies born to colored mothers. Expressed as percentages of the total births for white and non-white, the figures were 1.4 and 14.9 respectively. Similar percentages for 1945 were 1.7 and 17.7.

Marriages.—The number of marriages reported for 1946 was 61,020, an increase of 21,309, or 53.7%, over the number for the previous year. The marriage rate per 1,000 population was 14.2 compared with 9.5 for 1945 and 8.7 for 1944.

Deaths.—The number of deaths of residents of the State for 1946 was 46,261, equivalent to a rate of 10.7 per 1,000 population. In 1945 the rate was 11.3. For the past decade the rate ranged from 10.6 in 1938 and 1939 to 11.8 in 1943.

Stillbirths.—There were 2,127 stillbirths reported during 1946. The number for the previous year was 1,827. The 1946 rate was 22 per 1,000 live births. The rate for the colored population was 38.

TABLE 1.—POPULATION; BIRTHS, MARRIAGES AND DEATHS REPORTED WITH RATES PER 1,000 POPULATION

YEAR	Estimated Population	BIRTHS		MARRIAGES		DEATHS	
		Number of births reported	Birth rate per 1,000 population	Number of marriages	Marriage rate per 1,000 population	Number of deaths	Death rate per 1,000 population
1879	1,110,489	23,116	26.8	7,096	6.3	20,440	18.4
1880	1,133,731	23,680	20.8	7,963	7.0	18,907	16.7
1881	1,165,112	23,434	20.1	8,109	6.9	20,812	17.8
1882	1,196,493	23,198	19.3	8,837	7.3	23,339	21.6
1883	1,227,874	24,430	19.8	9,166	7.4	23,310	18.9
1884	1,250,256	25,283	20.0	8,968	7.1	21,716	17.2
1885	1,280,638	24,077	18.6	8,989	6.9	23,907	18.4
1886	1,322,020	25,487	19.2	12,351	9.3	22,734	17.1
1887	1,353,402	27,340	20.2	15,418	11.3	24,331	17.9
1888	1,384,784	28,074	20.2	16,025	11.5	27,173	19.6
1889	1,416,166	29,099	20.5	15,726	11.1	26,543	18.7
1890	1,448,548	30,103	20.7	15,564	10.7	29,530	20.6
1891	1,482,469	28,852	19.3	15,805	10.2	28,849	19.3
1892	1,536,336	30,627	19.9	16,082	10.4	32,685	21.2
1893	1,580,209	32,285	20.4	17,178	10.8	30,596	19.3
1894	1,624,083	33,692	20.7	16,245	10.0	30,004	18.4
1895	1,667,957	31,742	19.0	15,878	9.5	30,554	18.3
1896	1,711,831	31,207	18.2	16,370	10.7	30,767	17.9
1897	1,755,705	31,595	17.9	18,171	10.3	29,822	16.9
1898	1,799,578	32,515	18.0	13,213	7.3	27,337	15.1
1899	1,843,452	29,419	15.9	13,326	7.2	30,999	16.8
1900	1,887,324	30,370	17.0	14,611	7.7	31,474	16.6
1901	1,931,196	34,512	17.8	16,539	8.4	31,739	16.2
1902	2,021,539	35,116	17.3	18,150	8.9	31,319	15.4
1903	2,087,716	37,242	17.8	19,512	9.3	31,820	15.2
1904	2,153,893	38,751	17.9	18,919	8.7	35,298	15.3
1905	2,220,070	39,680	17.8	20,572	9.2	33,884	15.2
1906	2,286,247	42,677	18.6	21,580	9.4	35,670	15.6
1907	2,352,424	44,651	18.9	23,649	10.0	37,408	15.9
1908	2,418,601	47,405	19.6	26,155	10.8	35,597	14.7
1909	2,484,778	47,508	19.1	29,724	11.9	36,575	14.6
1910	2,550,955	47,412	18.6	30,919	12.1	39,484	15.4
1911	2,617,132	53,133	22.2	25,014	9.5	38,612	14.7
1912	2,677,909	60,073	22.4	26,821	10.0	37,772	14.1
1913	2,741,642	61,432	22.4	27,697	10.1	39,425	14.3
1914	2,805,374	62,493	22.3	28,967	10.2	40,222	14.2
1915	2,869,108	66,478	23.1	27,694	9.6	39,435	13.7
1916	2,932,838	70,211	23.9	31,169	10.6	43,376	14.7
1917	2,996,569	73,309	25.1	30,060	10.0	43,532	14.5
1918	3,060,301	74,549	24.3	33,699	7.8	60,852	19.8
1919	3,124,034	76,936	24.6	32,927	9.9	59,979	19.2
1920	3,187,766	76,431	23.8	31,327	9.7	49,820	12.7
1921	3,251,498	76,172	23.7	27,815	8.4	37,362	11.3
1922	3,315,230	74,479	22.0	27,114	8.0	40,066	11.8
1923	3,378,962	74,011	21.5	28,730	8.3	41,419	11.9
1924	3,442,694	76,330	21.9	27,401	7.7	40,531	11.4
1925	3,506,426	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,570,158	72,386	19.4	28,242	7.6	44,896	11.9
1927	3,633,890	72,789	19.1	28,316	7.4	41,662	10.9
1928	3,697,622	73,716	19.0	29,120	7.4	44,535	10.9
1929	3,761,354	68,297	17.1	30,257	7.6	45,748	11.5
1930	4,044,300	68,282	16.9	28,499	7.0	48,190	10.7
1931	4,056,200	64,078	15.8	28,468	6.5	44,138	10.9
1932	4,068,100	61,215	15.0	22,840	5.6	42,826	10.6
1933	4,080,000	60,772	14.9	24,453	6.0	43,830	10.6
1934	4,091,900	54,841	13.4	28,991	7.1	43,547	10.6
1935	4,103,800	55,069	13.4	29,724	7.2	43,267	10.5
1936	4,115,700	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,600	55,197	13.4	36,100	8.8	45,812	11.0
1938	4,139,500	56,692	13.7	31,066	7.5	44,045	10.6
1939	4,151,400	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,300	59,328	14.3	41,069	9.9	45,206	10.9
1941	4,175,200	67,104	16.0	46,538	11.1	49,971	10.9
1942	4,187,100	68,512	16.4	50,498	11.9	49,270	10.9
1943	4,199,000	82,356	19.4	41,045	9.7	49,781	11.8
1944	4,177,840	75,452	18.2	36,084	8.7	47,340	11.4
1945	4,200,911	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,304,261	95,044	22.1	61,020	14.2	46,261	10.7

TABLE 1A.—BIRTHS, MARRIAGES AND DEATHS, 1946

Month	(Births and deaths corrected for residence)		
	Births	Marriages	Deaths
January	6,240	4,135	4,687
February	5,893	4,496	3,971
March	6,300	3,851	4,020
April	6,451	4,611	3,837
May	7,267	4,949	3,844
June	7,145	8,983	3,648
July	8,390	4,302	3,532
August	8,925	4,828	3,290
September	9,355	6,527	3,600
October	9,781	5,262	3,822
November	9,395	5,574	3,712
December	9,902	3,502	4,298
Total	95,044	61,020	46,261

TABLE 1B.—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS, 1946
(Births and deaths corrected as to residence)

NAME OF PLACE	ATLANTIC COUNTY			
	Births	Marriages	Deaths	Deaths under one year
Absecon City	61	34	34	1
Atlantic City	1190	1161	938	44
Brigantine City	10	3	4	...
Buena Vista Township	1	1	1	3
Corbin City	2	2	2	...
Egg Harbor City	98	106	58	3
Egg Harbor Township	79	15	80	6
Estelle Manor City	3	6	3	1
Folsom Borough	1	1	2	...
Galloway Township	47	12	45	2
Hamilton Township	58	18	47	1
Hammonston Town	158	109	73	5
Linwood City	38	21	19	2
Longport Borough	7	7	3	...
Margate City	58	20	31	...
Millica Township	34	4	25	1
Northfield City	49	1	35	...
Pleasantville City	261	14	150	11
Port Republic City	3	6	8	1
Somers Point City	32	2	28	...
Ventnor City	141	131	108	5
Weymouth Township	4	2	6	...
Total	2406	1954	1722	87

BERGEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allendale Borough	45	16	26	...
Alpine Borough	15	6	4	1
Bergenfield Borough	235	121	119	11
Bogota Borough	157	108	85	2
Carlstadt Borough	159	48	159	3
Chiffside Park Borough	313	151	135	6
Closter Borough	56	36	36	...
Cresskill Borough	48	48	27	...
Demarest Borough	32	14	12	...
Dumont Borough	223	97	75	4
East Paterson Borough	233	75	53	4
East Rutherford Borough	162	102	62	4
Edgewater Borough	85	219	51	2
Emerson Borough	34	11	13	1
Englewood City	390	356	191	9
Englewood Cliffs Borough	16	3	5	1
Fair Lawn Borough	349	83	14	14
Fairview Borough	169	280	59	2
Fort Lee Borough	196	223	107	5
Franklin Lakes Borough	29	9	16	1
Garfield Borough	627	423	209	12
Glen Rock Borough	121	23	8	3
Hackensack City	524	536	327	16
Harrington Park Borough	7	7	1	1
Hasbrouck Heights Borough	153	69	14	5
Haworth Borough	34	8	19	2
Hillsdale Borough	67	31	42	2
Hoboken Borough	42	34	15	1
Leonia Borough	115	69	40	1
Little Ferry Borough	99	59	40	1
Lodi Borough	334	160	83	11
Lyndhurst Township	406	228	169	14
Mahwah Township	85	69	35	...
Maywood Borough	104	39	44	2
Midland Park Borough	111	49	42	1
Montrale Borough	30	9	16	...
Moonachie Borough	27	18	5	...
New Milford Borough	84	33	44	2
North Arlington Borough	319	97	88	7
Northvale Borough	25	23	12	...
Norwood Borough	49	23	18	2
Oakland Borough	28	9	12	...
Old Tappan Borough	8	1	9	...
Oradell Borough	53	47	33	1
Palisades Interstate Park	...	...	2	...
Palisades Park Borough	189	86	68	6
Paramus Borough	66	39	47	2
Park Ridge Borough	58	56	45	3
Ramsey Borough	91	44	28	...
Ridgefield Borough	142	70	49	3
Ridgefield Park Village	235	134	106	...
Ridgewood Village	274	199	166	2
River Edge Borough	151	46	41	5
Rivervale Township	35	2	14	...
Rochelle Park Township	113	43	35	3
Rockleigh Borough	3	3	3	...
Rutherford Borough	308	169	181	5
Saddle River Borough	16	10	3	...
Saddle River Township	34	21	1	...
South Hackensack Township	80	4	9	...
Teaneck Township	539	179	220	16
Tenny's Borough	135	68	82	...
Teterboro Borough	...	...	...	...
Upper Saddle River Borough	11	4	10	...
Wallwick Borough	64	15	29	2
Washington Borough	21	99	62	4
Washington Township	11	2	12	1
Westwood Borough	127	69	76	...
Woodcliff Lake Borough	20	5	9	...
Wood Ridge Borough	122	71	61	...
Wyckoff Township	93	31	39	2
Total	9496	5466	4118	227

BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township	18	10	11	...
Beverly City	69	63	39	...
Bordentown City	122	108	70	6
Bordentown Township	24	1	7	1
Burlington City	296	352	134	6
Burlington Township	62	16	26	1
Chesterfield Township	28	16	10	2
Cinnaminson Township	35	24	38	3
Delanco Township	54	14	23	1
Delran Township	47	10	32	1
Eastampton Township	7	1	4	...
Edgewater Park Township	15	17	12	...
Evesham Township	43	12	19	1
Fieldsboro Borough	13	2	8	2
Florence Township	164	85	90	10
Fort Dix	12	127	5	...
Hainesport Township	12	21	19	...
Lumberton Township	24	5	16	...
Mansfield Township	28	8	22	3
Maple Shade Township	119	72	32	3
Medford Township	62	32	38	3
Medford Lakes Borough	3	3	19	2
Moorestown Township	188	104	82	2
Mount Holly Township	174	403	188	8
Mount Laurel Township	5	8	13	1
New Hanover Township	10	5	5	...
North Hanover Township	20	10	11	...
Palmyra Borough	139	51	77	9
Pemberton Borough	34	23	13	1
Pemberton Township	71	58	32	4
Riverside Township	154	128	56	3
Riverton Borough	77	55	30	...
Shamong Township	13	1	4	...
Southampton Township	23	23	2	...
Springfield Township	19	9	16	1
Tabernacle Township	7	19	5	1
Washington Township	8	1	5	...
Willingboro Township	15	1	8	1
Woodland Township	9	...	6	...
Wrightstown Borough	26	12	8	...
Total	2326	1453	1154	74

CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough	255	95	116	4
Barrington Borough	49	14	28	4
Bellmawr Borough	156	13	32	6
Berlin Borough	81	54	34	2
Berlin Township	41	13	14	2
Brooklawn Borough	43	4	16	...
Camden City	2766	2042	1278	75
Chestnut Borough	7	7	3	1
Clementon Borough	67	20	37	...
Collingswood Borough	331	181	194	6
Delaware Township	72	28	44	2
Gibbstown Borough	11	11	9	...
Gloucester City	308	227	157	10
Gloucester Township	135	46	63	1
Haddonfield Borough	217	138	143	4
Haddon Heights Borough	130	129	63	4
Haddon Township	129	79	73	4
HINella Borough	3	...	2	...
Laurel Springs Borough	50	10	20	2
Lawnside Borough	15	3	19	1
Lindenwold Borough	64	69	29	1
Magnolia Borough	50	29	19	...
Merchantville Borough	299	120	85	4
Mount Ephraim Borough	82	49	30	4
Oaklyn Borough	137	56	41	...
Pennsauken Township	265	140	168	10

CAMDEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
I'ne Hill Borough	36	15	18	1
Pine Valley Borough	...	...	...	...
Runnemedo Borough	94	70	37	3
Somerdale Borough	27	9	25	...
Stratford Borough	23	22	...	...
Tarlstock Borough	...	...	...	...
Voorhees Township	14	10	9	...
Waterford Township	67	29	32	3
Winslow Township	84	61	43	3
Woodlyne Borough	50	26	29	4
Total	6142	3795	2914	161

CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough	4	1	5	...
Cape May City	75	50	58	3
Cape May Point Borough	1	...	3	1
Dennis Township	31	16	23	...
Lower Township	21	17	31	...
Middle Township	85	37	75	...
North Wildwood City	36	9	29	...
Ocean City	108	96	84	3
Sea Isle City	20	15	8	...
Stone Harbor Borough	8	10	8	1
Upper Township	25	19	18	2
West Cape May Borough	23	3	26	...
West Wildwood Borough	8	...	3	...
Wildwood City	128	118	78	5
Wildwood Crest Borough	22	3	11	3
Woodbine Borough	20	14	14	...
Total	613	411	474	21

CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City	443	305	250	25
Commercial Township	53	22	37	2
Deerfield Township	76	14	21	...
Dovne Township	41	14	22	2
Fairfield Township	46	21	27	4
Greenwich Township	20	7	10	1
Hopewell Township	59	9	22	3
Landis Township	305	168	142	13
Lawrence Township	40	11	17	...
Maurice River Township	51	12	35	2
Millville City	332	182	205	11
Shiloh Borough	7	11	6	...
Stow Creek Township	31	1	11	...
Upper Deerfield Township	92	34	25	2
Vineland Borough	189	133	83	6
Total	1785	944	913	71

ESSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bellefonte Town	628	328	246	14
Bloomfield Town	984	434	437	20
Caldwell Borough	136	77	75	3
Caldwell Township	16	6	10	...
Cedar Grove Township	57	4	22	...
East Orange City	1556	748	883	35
Essex Falls Borough	3	16	9	...
Glen Ridge Borough	128	68	88	1
Irrington Town	128	688	535	23
Livingston Township	176	47	55	5
Maplewood Township	422	220	213	8
Millburn Township	173	133	93	4
Montclair Town	830	376	483	24
Newark City	9621	7796	4683	323
North Caldwell Borough	19	3	9	1
Nutley Town	508	322	217	15
Orange City	879	688	388	19
Roseland Borough	49	4	20	...
South Orange Village	237	198	163	4
Verona Borough	198	80	68	6
West Caldwell Borough	88	2	27	3
West Orange Town	534	179	267	12
Total	18487	12895	9296	318

GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough	62	31	29	1
Deptford Township	105	51	36	2
East Greenwich Township	51	21	18	...
Elk Township	35	7	7	...
Franklin Township	73	38	45	1
Glassboro Borough	123	84	56	3
Greenwich Township	64	28	17	2
Harrison Township	62	11	23	1
Logan Township	40	19	18	3
Mantua Township	94	32	39	3
Monroe Township	86	54	69	6
National Park Borough	55	25	13	3
Newfield Borough	30	27	12	1
Paulsboro Borough	186	105	74	4
Pitman Borough	129	76	71	4
South Harrison Township	15	7	9	1
Swedeboro Borough	62	37	32	1
Washington Township	88	17	18	2
Wenonah Borough	27	22	17	1
West Deptford Township	74	47	33	3
Westville Borough	104	105	59	3
Woodbury City	219	112	104	7
Woodbury Heights Borough	25	6	7	...
Woolwich Township	19	...	11	1
Total	1780	982	817	52

HUDSON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Baronne City	1733	1100	709	58
East Newark Borough	41	36	30	1
Guttenberg Town	107	64	74	4
Harrison Township	312	232	122	5
Hoboken City	964	1304	648	48
Jersey City	6582	4683	3418	192
Kearny Town	868	425	397	22
North Bergen Township	848	304	402	23
Secaucus Borough	140	88	75	8
Union City	1118	837	627	29
Weehawken Township	243	178	178	4
West New York Town	829	1036	371	30
Total	13815	10427	7664	424

HUNTERDON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Township	10	6	9	...
Bethlehem Township	5	1	9	...
Bloombury Borough	9	10	12	...
Calton Borough	10	10	6	...
Clinton Town	26	21	14	...
Clinton Township	37	8	16	2
Delaware Township	30	18	22	1
East Amwell Township	27	5	19	2
Flemington Borough	66	62	27	2
Franklin Township	16	10	18	...
Frenchtown Borough	27	23	15	...
Glen Gardner Borough	18	11	6	2
Hampton Borough	22	29	10	2
High Bridge Borough	30	33	22	3
Holland Township	10	3	5	...
Kingwood Township	10	8	19	...
Lambertville City	86	70	60	1
Lebanon Borough	10	7	11	1
Lebanon Township	19	7	9	...
Milford Borough	40	28	15	1
Raritan Township	32	1	25	2
Readington Township	12	46	34	1
Stockton Borough	12	13	7	...
Tewksbury Township	23	8	15	7
Union Township	12	4	7	...
West Amwell Township	14	2	4	...
Total	656	444	416	20

MERCER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Township	15	...	13	1
Ewing Township	297	63	101	15
Hamilton Township	839	367	332	23
Hightstown Borough	81	86	71	3
Hopewell Borough	37	34	29	2
Hopewell Township	11	44	4	...
Lawrence Township	159	59	66	4
Pennington Borough	36	38	14	2
Princeton Borough	191	153	78	5
Princeton Township	49	16	24	1
Trenton City	2067	2007	1413	115
Washington Township	28	11	19	1
West Windsor Township	60	22	19	2
Total	4538	2939	2223	178

MIDDLESEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Camp Kilmer	1	132	1	...
Carleer Borough	262	202	90	7
Cranbury Township	44	12	24	2
Dunellen Borough	199	136	76	4
East Brunswick Township	96	36	38	4
Helmetta Borough	11	20	9	1
Highland Park Borough	226	123	81	7
Jamesburg Borough	57	49	36	2
Madison Township	149	56	37	1
Mt. Airy Borough	131	120	85	3
Mt. Airy Township	73	83	32	1
Milltown Borough	67	63	38	2
Monroe Township	34	10	17	1
New Brunswick City	853	775	350	19
North Brunswick Township	127	18	89	4
North Amboy City	869	741	373	16

MIDDLESEX COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Piscataway Township	142	31	69	3
Plainboro Township	9	7	10	...
Raritan Township	220	99	88	4
Sayreville Borough	173	72	69	7
South Amboy City	205	164	90	5
South Brunswick Township	64	12	42	3
South Plainfield Borough	156	57	57	3
South River Borough	254	191	89	5
Spotswood Borough	47	10	14	3
Woodbridge Township	695	281	254	18
Total	5187	3475	2141	125

MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Borough	19	3	7	...
Allentown Borough	22	36	29	1
Asbury Park City	357	282	249	9
Atlantic Township	13	11	14	...
Atlantic Highlands Borough	67	52	29	3
Avon Borough	44	29	17	2
Belmar Borough	117	87	64	1
Bradley Beach Borough	70	51	54	4
Brielle Borough	18	6	8	...
Deal Borough	29	15	15	...
Eatontown Borough	71	35	36	2
Englishtown Borough	29	9	18	...
Fair Haven Borough	51	17	26	2
Farmingdale Borough	22	10	15	...
Fort Hancock	8	11	1	...
Fort Monmouth	29	101	3	1
Freehold Borough	167	123	103	4
Freehold Township	59	6	26	2
Highlands Borough	60	42	37	...
Holmdel Township	9	4	12	...
Howell Township	93	45	49	2
Interlaken Borough	15	2	12	...
Keansburg Borough	110	82	59	2
Keystone Borough	144	109	82	5
Little Silver Borough	43	11	12	...
Long Branch City	535	294	232	14
Manalapan Township	59	21	16	1
Manasquan Borough	54	37	46	2
Marlboro Township	40	18	32	1
Matawan Borough	114	35	37	1
Matawan Township	47	12	12	1
Middletown Township	233	93	133	9
Millstone Township	26	1	17	2
Monmouth Beach Borough	12	3	9	...
Neptune Township	235	91	204	5
Neptune City	74	27	25	1
Ocean Township	93	33	59	5
Oceanport Borough	51	9	15	2
Raritan Township	23	1	14	2
Red Bank Borough	314	249	163	11
Roosevelt Borough	3	3	3	...
Rumson Borough	67	49	37	2
Sea Bright Borough	26	8	16	1
Sea Girt Borough	23	7	13	...
Shrewsbury Borough	31	19	16	...
Shrewsbury Township	73	17	11	...
South Belmar Borough	27	2	10	...
Spring Lake Borough	20	26	29	1
Spring Lake Heights Borough	32	12	14	2
Union Beach Borough	51	17	34	3
Upper Freehold Township	85	5	22	3
Wall Township	36	30	39	2
West Long Branch Borough	63	16	29	4
Total	4133	2416	2296	117

MORRIS COUNTY - 1946

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Hooton Town	137	126	51	6
Bounton Township	25	3	5	3
Butler Borough	112	67	43	3
Chatham Borough	146	57	43	3
Chatham Township	23	7	13	...
Chester Borough	12	19	10	...
Chester Township	19	4	2	...
Denville Township	127	41	43	...
Dover Town	258	119	119	1
East Hanover Township	25	23	11	...
Florham Park Borough	22	2	26	...
Hanover Township	85	32	41	2
Harding Township	26	8	9	...
Jefferson Township	19	11	19	2
Kinnelon Borough	14	4	10	...
Lincoln Park Borough	46	11	30	1
Madison Borough	191	125	93	7
Mendham Borough	29	23	23	1
Mendham Township	15	5	13	1
Mill Hill Township	20	14	20	3
Montville Township	81	34	35	3
Morris Plains Borough	85	47	53	22
Morristown Township	342	246	220	10
Morris Township	104	23	56	2
Mountain Lakes Borough	37	14	11	...
Mount Arlington Borough	14	15	3	...
Mount Olive Township	56	13	21	...
Netsong Borough	61	70	21	3
Parshippar-Troy Hills Township	137	39	62	4
Passaic Township	61	28	20	1
Pequanock Township	70	24	27	3
Randolph Township	79	12	26	5
Riverdale Borough	34	3	12	...
Rockaway Borough	106	79	35	1
Rockaway Township	75	20	39	5
Roxbury Township	108	59	41	4
Washington Township	83	12	26	...
Wharton Borough	109	64	36	...
Total	2974	1591	1376	73

OCEAN COUNTY - 1946

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat City Borough	2	...	2	...
Bay Head Borough	21	13	9	1
Beach Haven Borough	23	18	9	...
Beachwood Borough	30	6	16	...
Berkeley Township	14	18	13	1
Brick Township	58	9	26	...
Dover Township	135	111	81	5
Eagleswood Township	9	12	1	...
Harvey Cedars Borough	...	1	2	...
Island Beach Borough	14	7	8	...
Island Heights Borough	44	11	31	3
Jackson Township	7	6	14	...
Lacey Township	54	34	17	2
Lakehurst Borough	195	199	123	7
Lakewood Township	4	2	6	...
Lavallette Borough	4	4	5	...
Little Egg Harbor Township	9	4	5	...
Long Beach Township	14	1	5	...
Manchester Township	8	1	11	2
Mantoloking Borough	2	...	2	1
Ocean Township	10	2	7	1
Ocean Gate Borough	8	1	1	...
Pine Beach Borough	10	1	2	...
Plumsted Township	57	11	20	5
Point Pleasant Borough	95	33	36	2
Point Pleasant Beach Borough	13	61	23	...

OCEAN COUNTY—Continued—1946

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Seaside Heights Borough	21	6	11	...
Seaside Park Borough	13	4	10	...
Ship Bottom-Beach Arlington Borough	6	4	4	...
South Toms River Borough	8	4	5	...
Stafford Township	27	5	21	3
Surf City Borough	3	...	1	...
Tuckerton Borough	23	16	22	1
Union Township	23	16	22	1
Total	983	631	578	36

PASSAIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomington Borough	72	41	29	3
Clifton City	1259	441	478	33
Haledon Borough	115	54	53	3
Hawthorne Borough	290	131	123	4
Little Falls Township	144	94	64	...
North Haledon Borough	49	15	24	1
Passaic City	1150	1338	599	35
Paterson City	2776	2231	1539	68
Pompton Lakes Borough	92	87	28	2
Prospect Park Borough	117	81	53	3
Ringwood Borough	89	6	10	2
Totowa Borough	83	47	40	3
Wanaquo Borough	92	72	33	2
Wayne Township	200	67	69	3
West Milford Township	51	32	35	3
West Paterson Borough	70	17	25	1
Total	6569	4754	3221	166

SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Township	39	13	20	1
Elmer Borough	43	10	28	2
Elmhurst Township	19	1	8	...
Lower Alloways Creek Township	23	7	10	...
Lower Penns Neck Township	151	30	48	6
Mannington Township	40	14	27	2
Oldmans Township	34	14	16	1
Penns Grove Borough	261	106	61	6
Pilesgrove Township	2	8	18	3
Pittsgrove Township	64	18	18	2
Quinton Township	37	15	16	2
Salem City	234	132	102	16
Upper Penns Neck Township	109	32	42	3
Upper Pittsgrove Township	44	13	14	1
Woodstown Borough	65	25	34	3
Total	1195	456	463	59

SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Township	31	8	11	...
Bernarda Township	52	23	29	...
Bernardsville Borough	65	64	37	3
Bound Brook Borough	222	185	78	6
Branchburg Township	33	3	21	...
Bridgewater Township	155	28	32	4
East Millstone Town	7	6	3	...
Far Hills Borough	19	9	3	...
Franklin Township	153	39	70	4
Green Brook Township	22	4	10	1
Hillsborough Township	37	15	34	2
Manville Borough	237	111	63	6
Millstone Borough	7	7	2	...
Montgomery Township	32	15	18	...
North Plainfield Borough	263	139	106	6
Pesack-Gladstone Borough	27	17	14	...
Raritan Town	92	87	4	4
Rocky Hill Borough	15	8	6	...
Somerville Borough	202	147	115	9
South Bound Brook Borough	62	18	25	6
Warren Township	51	20	14	2
Watchung Borough	24	25	7	...
Total	1833	978	768	53

SUSSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Borough	18	11	10	...
Andover Township	19	...	4	...
Branchville Borough	20	18	14	2
Bryan Township	9	1	7	...
Frankford Township	36	2	18	...
Franklin Borough	98	43	32	2
Fredon Township	12	9	3	...
Green Township	13	8	5	...
Hamburg Borough	44	31	16	2
Hampton Township	10	3	4	...
Hardyston Township	35	1	14	2
Hopatcong Borough	12	5	7	...
Lafayette Township	21	12	4	...
Montague Township	6	2	8	...
Newton Town	137	101	88	3
Ogdensburg Borough	23	12	13	...
Sandyston Township	21	8	17	...
Sparta Township	60	26	25	2
Stanhope Borough	38	19	10	...
Stillwater Township	15	8	7	...
Sussex Borough	60	57	23	4
Vernon Township	38	18	17	...
Walpack Township	8	...	1	...
Wantage Township	45	6	27	3
Total	808	398	374	20

UNION COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Township	75	16	17	2
Cranford Township	409	182	138	9
Elizabeth City	2503	1778	1196	64
Fanwood Borough	72	9	19	2
Garwood Borough	88	48	33	2
Hillside Township	430	133	152	8
Kenilworth Borough	94	17	25	2
Linden City	717	268	192	16
Mountainside Borough	40	...	...	...
New Providence Borough	62	28	13	1
New Providence Township	39	22	18	3
Plainfield City	906	536	450	17
Rahway City	447	246	221	15
Roselle Borough	405	180	123	6
Roselle Park Borough	213	62	87	15
Scotch Plains Township	136	35	53	4
Springfield Township	115	62	47	1
Summit City	322	215	184	17
Union Township	554	214	192	17
Westfield Town	430	203	194	9
Winfield Township	101	1	12	...
Total	8158	4281	3355	198

WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Township	13	...	5	...
Alpha Borough	61	50	24	1
Belvidere Town	64	29	29	1
Hairistown Township	31	18	19	1
Franklin Township	29	9	14	...
Frelighnyasen Township	13	6	10	...
Greenwich Township	40	12	12	...
Hackettstown Town	78	54	53	4
Hardwick Township	5	1	6	...
Harmony Township	37	14	11	2
Hope Township	14	6	9	2
Independence Township	17	14	11	1
Knowlton Township	19	12	18	1
Liberty Township	12	2	4	...
Lopatcong Township	11	5	10	...
Mansfield Township	21	8	11	...
Oxford Township	39	23	24	1
Pahaquarry Township	...	...	2	...
Phillipsburg Town	434	237	225	13
Pohatcong Township	39	11	20	...
Washington Borough	112	68	58	4
Washington Township	26	12	18	1
White Township	16	5	15	1
Total	1120	647	608	34
State Total	9504	61020	46261	2705

TABLE 2.—DEATHS BY AGE PERIODS AND PERCENTAGES OF EACH OF TOTAL DEATHS, 1880

	AGE PERIODS											Total	Deaths Percentage of total	878 1.0	5,735 12.4	10,704 23.3	10,440 22.0	7,768 16.8	3,807 8.3	1,625 3.9	518 1.1	223 0.5
	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49												50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
Deaths	2,706	166	120	87	63	3,141	223	518	1,091	1,625	3,807	7,768	10,440	10,704	5,735	878	Unknown	..				
Percentage of total	5.9	0.4	0.3	0.2	0.1	6.6	0.5	1.1	2.4	3.9	8.3	16.8	22.0	23.3	12.4	1.0	..	..		

NEW JERSEY BIRTHS AND DEATHS FIVE YEAR AVERAGE RATES 1,000 POPULATION

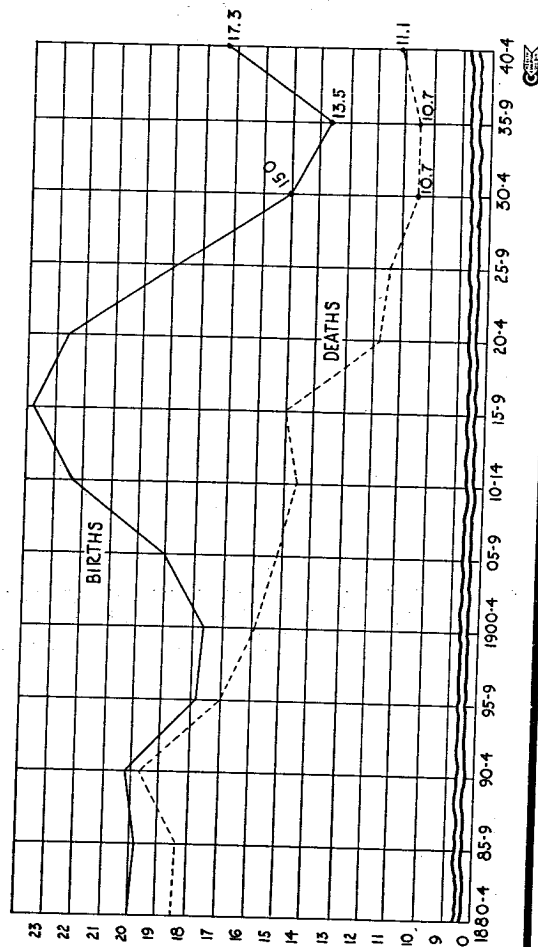


CHART 1

Infant Mortality.—The infant mortality rate for 1946 was 28.5 per 1,000 babies born alive. The rate for 1945 was 32.1 and the average annual rate for the five-year period 1941-1945 was 33.3. Reference to Table 4 will show the great decrease in the infant death rate in New Jersey since baby welfare work was extensively undertaken in New Jersey.

Colored Races.—The infant mortality rate for the colored races was 47.8. The colored races have shown high mortality rates ever since vital records were first collected and analyzed.

Maternal Mortality.—The rate of 1.3 for 1946 was 13.3% lower than the rate for 1945 and was the lowest since such rates were first computed in 1906. The average annual rate for the five-year period 1941-1945 was 1.8 per 1,000 live births. The colored maternal mortality rate for 1946 was 2.9.

TABLE 3—NUMBER OF DEATHS AT ALL AGES, UNDER ONE YEAR OF AGE AND UNDER FIVE YEARS OF AGE, AND THEIR PERCENTAGES OF TOTAL DEATHS

CALENDAR YEAR	DEATHS IN NEW JERSEY				
	All Ages	Under one year		Under five years	
		Number	Percentage of Total	Number	Percentage of Total
1904	35,298	7,472	21.2	10,927	31.0
1905	33,864	6,951	20.5	9,864	29.1
1906	35,670	7,773	21.8	11,246	31.5
1907	37,408	7,732	20.7	10,867	29.0
1908	35,597	7,823	22.0	10,869	30.5
1909	36,359	7,658	21.1	11,137	30.6
1910	39,494	8,352	21.1	11,648	29.5
1911	38,612	7,642	19.8	10,740	27.8
1912	37,772	7,457	19.7	10,309	27.3
1913	39,425	7,542	19.1	10,686	27.1
1914	39,967	7,431	18.6	10,278	25.7
1915	39,435	7,077	17.9	9,828	24.9
1916	43,376	7,348	16.9	11,188	25.8
1917	43,532	7,582	17.4	10,267	23.6
1918	60,852	8,372	13.8	13,709	22.5
1919	39,979	6,111	15.3	8,661	21.7
1920	40,820	6,672	16.3	9,569	23.4
1921	37,362	5,773	15.4	8,047	21.5
1922	40,086	5,864	14.6	8,371	20.9
1923	41,294	5,368	13.0	7,727	18.7
1924	40,531	5,359	15.5	7,344	21.3
1925	41,749	5,109	12.3	6,997	16.8
1926	44,396	5,090	11.5	7,442	16.8
1927	41,562	4,464	10.7	6,045	14.5
1928	44,555	4,600	10.3	6,438	14.4
1929	45,746	4,116	9.0	5,795	12.6
1930	43,190	3,870	9.0	5,205	12.1
1931	44,135	3,649	8.3	4,916	11.1
1932	42,826	3,089	7.2	4,049	9.4
1933	43,380	2,608	6.0	3,512	8.1
1934	43,547	2,686	6.2	3,518	8.1
1935	43,267	2,539	5.9	3,291	7.6
1936	44,659	2,383	5.3	3,039	6.8
1937	45,312	2,170	4.8	2,870	6.3
1938	44,045	2,228	5.1	2,810	6.4
1939	43,837	2,180	5.0	2,677	6.1
1940	45,206	2,094	4.6	2,506	5.6
1941	45,971	2,392	5.2	2,809	6.1
1942	46,270	2,535	5.5	2,958	6.4
1943	49,781	2,782	5.6	3,258	6.5
1944	47,340	2,567	5.4	3,060	6.5
1945	47,633	2,470	5.2	2,943	6.2
1946	46,261	2,705	5.8	3,141	6.8

TABLE 4.—NUMBER OF BIRTHS, STILLBIRTHS, DEATHS UNDER ONE MONTH, DEATHS UNDER ONE YEAR AND MATERNAL DEATHS IN NEW JERSEY, WITH RATES PER 1,000 LIVE BIRTHS

Year	Births Reported	Deaths Under 1 Year of Age	Rates per 1,000 Live Births	Deaths Under 1 Month of Age	Rates per 1,000 Live Births	Still Births	Rates per 1,000 Live Births	Maternal Deaths	Rates per 1,000 Births
1900	42,677	7,773	182.1	2,645	59	2,309	56	822	7.6
1901	44,961	7,732	173.2	2,602	58	2,530	56	289	6.5
1902	47,608	7,858	165.2	2,631	56	2,539	53	319	6.6
1903	53,942	8,352	153.8	2,801	51	2,737	50	377	6.9
1904	58,138	7,642	131.4	2,887	49	2,754	47	417	7.3
1905	60,078	7,457	123.1	2,836	47	2,953	49	425	7.4
1906	66,402	7,431	111.9	2,905	44	3,074	47	419	6.3
1907	66,476	7,077	106.4	2,862	43	3,075	46	390	5.8
1908	70,211	7,348	104.7	3,075	43	3,221	45	383	5.4
1909	75,009	7,652	100.7	3,259	43	3,153	42	411	5.4
1910	76,839	7,611	98.7	2,968	38	3,047	42	417	5.5
1911	76,431	6,672	87.2	2,961	38	3,221	42	366	6.1
1912	78,172	6,773	76.8	2,850	36	3,232	41	404	5.9
1913	74,419	5,864	78.7	2,703	37	3,063	40	409	5.4
1914	74,519	5,899	79.0	2,750	35	3,177	41	466	6.2
1915	78,680	6,109	68.8	2,607	35	3,010	40	461	6.2
1916	72,889	6,080	70.8	2,587	35	3,018	41	394	6.4
1917	70,076	4,886	69.8	2,486	35	2,804	40	406	6.7
1918	68,397	4,116	60.2	2,233	32	2,767	40	367	5.3
1919	68,282	3,870	56.6	2,107	30	2,647	38	390	5.7
1920	64,979	3,630	56.9	2,095	32	2,575	39	379	5.9
1921	63,072	2,808	44.5	1,513	27	2,073	36	280	5.1
1922	54,841	2,686	48.9	1,634	29	2,035	36	264	5.3
1923	55,059	2,589	46.1	1,560	28	1,905	34	249	4.6
1924	55,130	2,376	43.0	1,337	24	1,731	31	232	4.2
1925	54,190	2,228	40.9	1,365	24	1,704	30	191	3.5
1926	56,859	2,180	38.3	1,412	25	1,609	28	173	3.0
1927	59,828	2,094	35.0	1,422	24	1,543	26	172	2.9
1928	60,512	2,532	41.8	1,801	29	2,006	32	192	3.1
1929	60,512	2,732	45.2	1,862	30	1,978	31	161	2.6
1930	62,856	2,587	41.1	1,766	28	1,744	28	119	1.9
1931	75,652	2,470	32.5	1,660	22	1,527	20	118	1.5
1932	76,004	2,703	35.3	1,620	21	1,517	19	110	1.3

TABLE 5.—DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS—1946

	Rate Per 1,000 Live Births		
	Deaths Under One Month	Stillbirths	Maternal Deaths
New Jersey	21	22	1.3
Atlantic County	27	26	3.3
Atlantic City	28	27	2.5
Bergen County	19	20	0.4
Burlington County	19	21	2.6
Camden County	20	20	1.6
Camden City	20	22	1.5
Cape May County	24	33	..
Cumberland County	29	25	2.2
Essex County	21	23	1.0
East Orange	19	19	..
Irvington	12	13	..
Newark	25	27	1.6
Gloucester County	19	24	..
Hudson County	25	22	1.0
Bayonne	29	18	1.2
Hoboken	36	22	3.0
Jersey City	23	20	0.6
Union City	20	18	1.8
Hunterdon County	20	17	..
Mercer County	27	26	2.0
Trenton	29	27	2.6
Middlesex County	18	22	1.3
Monmouth County	21	19	1.9
Morris County	16	22	0.7
Ocean County	26	24	..
Passaic County	19	27	2.1
Passaic City	26	32	2.6
Paterson	16	28	2.5
Salem County	30	25	0.8
Somerset County	19	23	1.1
Sussex County	19	28	3.7
Union County	20	23	0.9
Elizabeth	20	32	0.8
Warren County	18	14	0.9

TABLE 7.—BIRTHS, DEATHS UNDER ONE YEAR AND INFANT MORTALITY RATES
(EXCLUSIVE OF STILLBIRTHS)—1946

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
New Jersey	95,044	2,705	28
Atlantic County	2,406	87	36
Atlantic City	1,190	44	37
Hammonton	158	5	32
Pleasantville	261	11	42
Bergen County	9,496	227	24
Bergenfield	235	11	47
Cliffside Park	313	6	19
Englewood	399	9	23
Fairview	169	2	12
Fort Lee	196	5	26
Garfield	627	12	19
Hackensack	524	16	31
Lodi	334	11	33
Lyndhurst Township	406	14	34
North Arlington	319	7	22
Ridgefield Park	255	..	..
Ridgewood	274	2	7
Rutherford	306	5	16
Teaneck Township	530	16	30
Wallington	211	4	19
Burlington County	2,326	74	32
Burlington	296	8	27
Camden County	6,142	161	26
Audubon	253	4	16
Camden	2,756	75	27
Collingswood	331	6	18
Gloucester City	308	10	32
Haddonfield	217	4	18
Pennsauken Township	265	10	38
Cape May County	613	21	34
Cumberland County	1,785	71	40
Bridgeton	443	25	56
Millville	332	11	33
Vineland	189	6	32
Essex County	18,487	518	28
Belleville	628	14	22
Bloomfield	984	20	20

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
East Orange	1,556	35	22
Irvington	1,228	23	19
Maplewood Township	422	8	19
Millburn Township	173	4	23
Montclair	830	24	29
Newark	9,621	323	34
Nutley	508	15	30
Orange	879	19	22
South Orange	237	4	17
West Orange	534	12	22
Gloucester County	1,780	52	29
Woodbury	219	7	32
Hudson County	13,815	424	31
Bayonne	1,733	58	33
Guttenberg	107	4	37
Harrison	312	5	16
Hoboken	994	48	48
Jersey City	6,582	192	29
Kearny	868	22	25
North Bergen Township	848	23	27
Secaucus	140	8	57
Union City	1,116	29	26
Weehawken Township	245	4	16
West New York	829	30	36
Hunterdon County	656	20	30
Mercer County	4,558	178	39
Princeton	191	5	26
Trenton	2,667	115	43
Middlesex County	5,187	125	24
Carteret	262	7	27
Highland Park	226	7	31
New Brunswick	885	19	21
Perth Amboy	869	16	18
Sayreville	175	7	40
South Amboy	205	5	24
South River	254	5	20
Woodbridge Township	695	18	26
Monmouth County	4,153	117	28
Asbury Park	357	9	25
Long Branch	535	14	26
Neptune Township	255	5	20
Red Bank	314	11	35

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
Morris County	2,974	73	25
Dover	258	1	4
Madison	191	7	37
Morristown	342	10	29
Ocean County	983	36	37
Passaic County	6,569	166	25
Clifton	1,259	33	26
Hawthorne	260	4	15
Passaic	1,150	35	30
Paterson	2,776	68	24
Salem County	1,195	50	42
Salem City	234	16	68
Somerset County	1,833	53	29
Bound Brook	222	6	27
North Plainfield	268	6	22
Somerville	202	9	45
Sussex County	808	20	25
Union County	8,158	198	24
Cranford Township	409	9	22
Elizabeth	2,503	64	26
Hillside Township	430	8	19
Linden	717	16	22
Plainfield	906	17	19
Rahway	447	15	34
Roselle	405	15	37
Roselle Park	213	6	28
Summit	322	6	19
Union Township	554	17	31
Westfield	430	9	21
Warren County	1,120	34	30
Phillipsburg	434	13	30

Typhoid Fever.—Three deaths were reported for the year. This was a rate of 0.1 per 100,000 population. In 1945 the rate of 0.2 represented eight deaths. The 1946 rate was low in comparison with the United States rate of 0.2. The number of deaths from typhoid fever and other diseases of the International List of Causes of Death by counties and cities may be obtained by referring to Table 20. Table 22 shows the more important causes by sex, color and age groups.

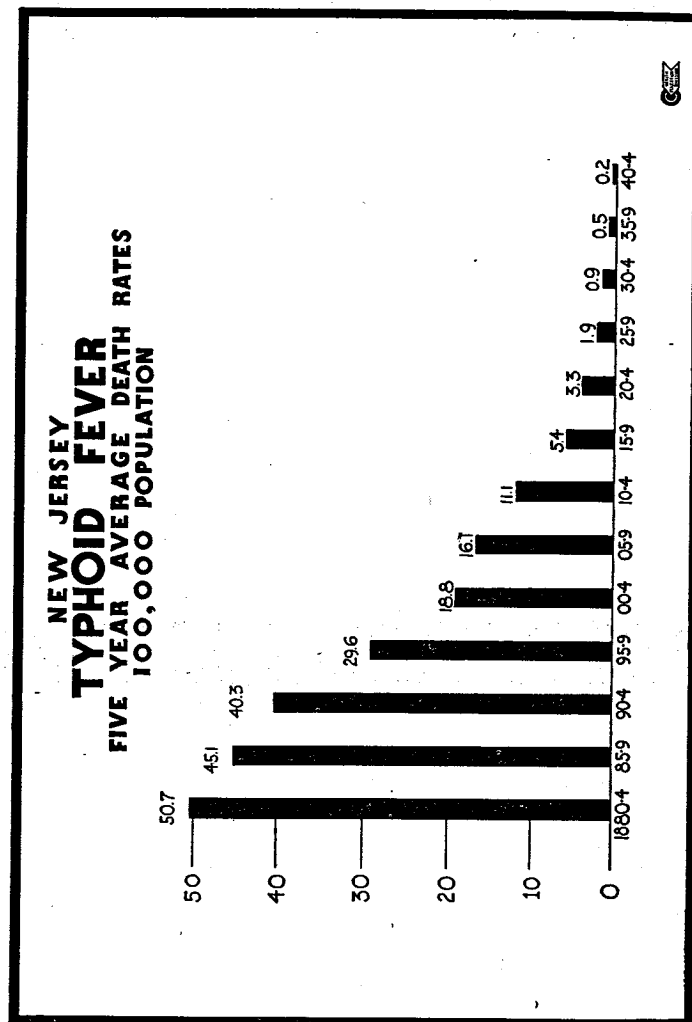


CHART 2

TABLE 8—COMPARATIVE DEATH RATES FROM TYPHOID FEVER PER 100,000 POPULATION, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Registration area of the United States	2.1	1.8	1.5	1.0	0.8	0.5	0.5	0.4	0.4	0.2
New Jersey	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1

TABLE 10—DEATHS FROM TYPHOID FEVER, PER 100,000 POPULATION, BY COUNTIES, FOR 10 YEARS

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Atlantic	1.4	1.4	2.4	8.8	...	1.6	...	...	0.9	...
Bergen	0.4	0.4	...	0.2	0.5	...	...	...	...	0.5
Burlington	2.0	1.0	1.0	...	...	...	...	...	...	...
Camden	0.7	...	1.2	...	0.4	...	0.4	...	0.8	...
Cape May .....	...	...	...	...	...	...	1.4	1.4	...	...
Cumberland .....	...	...	1.4	...	...	...	...	...	0.4	...
Essex	0.5	0.5	0.6	0.1	0.1	...	...	...	...	...
Gloucester	1.2	...	...	1.4	...	...	...	1.3	...	...
Hudson	0.1	0.6	...	0.3	...	0.2	...	0.5	...	...
Hunterdon .....	...	...	...	...	2.7	...	...	...	...	...
Mercer .....	...	...	...	1.0	...	...	...	...	...	...
Middlesex .....	...	0.3	...	0.9	0.5	...	0.4	...	...	...
Monmouth	3.6	...	...	0.6	0.6	0.6	0.6	...	...	...
Morris .....	...	...	...	...	...	...	...	0.8	...	...
Ocean	2.6	...	...	...	...	...	...	...	...	...
Passaic .....	...	0.3	0.3	...	0.3	0.3	...	0.3	...	...
Salem .....	...	2.4	...	...	...	...	...	...	2.3	...
Somerset	1.3	...	...	...	...	...	1.5	...	...	...
Sussex	3.4	...	...	...	...	...	...	...	...	...
Union	2.8	...	...	0.3	0.3	...	...	0.3	...	...
Warren .....	...	...	...	...	...	...	...	...	2.1	...
New Jersey	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1

Smallpox.—No deaths from smallpox have occurred in New Jersey since 1925, when as in 1924 the disease was prevalent in epidemic form in certain sections of the State.

Measles.—Twenty-seven deaths occurred from this disease, equivalent to a rate of 0.6 per 100,000 population. Of these, three deaths were in the group under one year of age and 11 were in the group under five years of age. In 1945 three deaths were reported, equivalent to a rate of 0.1.

Scarlet Fever.—The number of deaths from scarlet fever was five, equivalent to a rate of 0.1 per 100,000 population. The number for the previous year was also five and the rate was 0.1.

Malaria.—As the following figures show, deaths during recent years from this disease were practically negligible in the State:

1879	268	1896	119	1913	11	1930	5
1880	293	1897	132	1914	10	1931	0
1881	431	1898	82	1915	17	1932	3
1882	379	1899	96	1916	10	1933	1
1883	290	1900	84	1917	5	1934	0
1884	230	1901	50	1918	13	1935	6
1885	209	1902	36	1919	2	1936	3
1886	243	1903	40	1920	5	1937	0
1887	217	1904	47	1921	10	1938	1
1888	264	1905	21	1922	3	1939	1
1889	203	1906	33	1923	2	1940	0
1890	195	1907	29	1924	6	1941	0
1891	180	1908	30	1925	3	1942	3
1892	198	1909	25	1926	2	1943	2
1893	148	1910	25	1927	2	1944	0
1894	162	1911	25	1928	3	1945	3
1895	144	1912	29	1929	5	1946	2

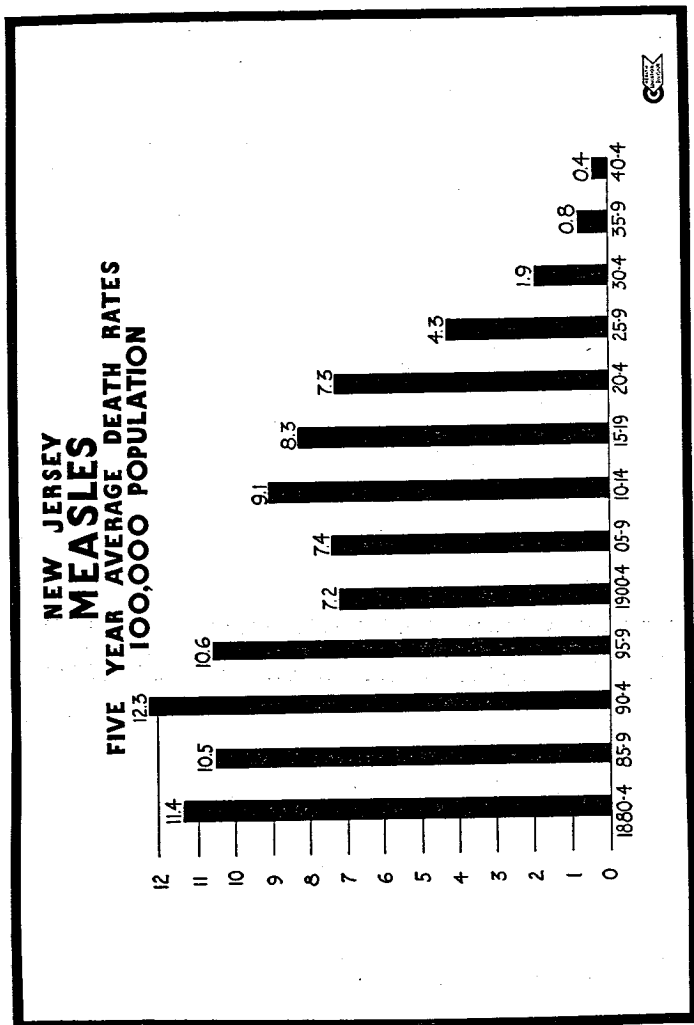


CHART 3

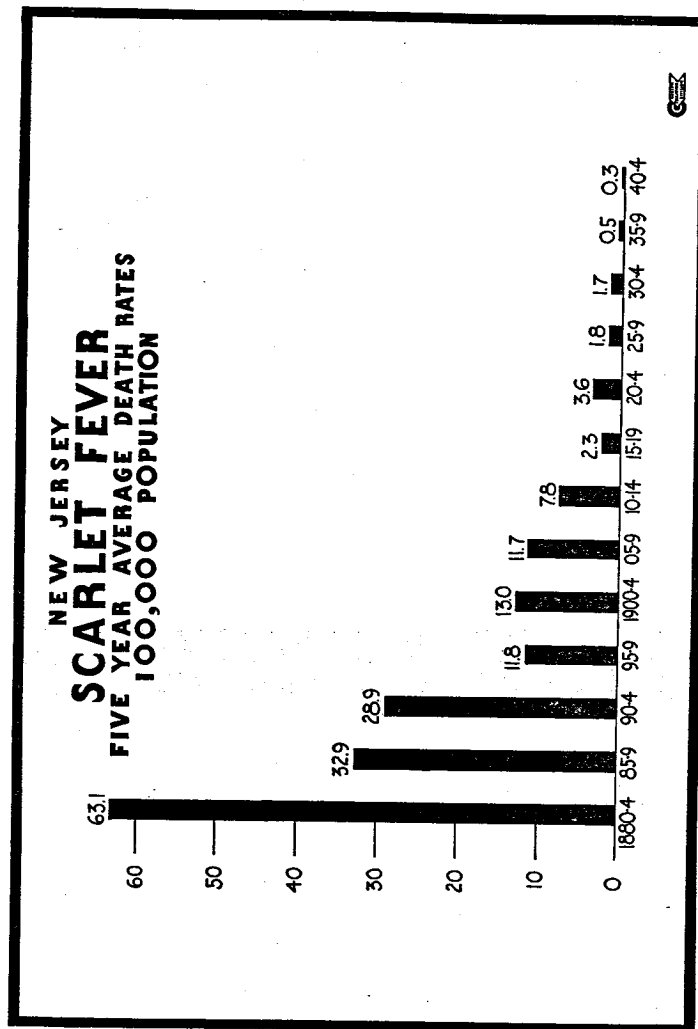


CHART 4

Whooping Cough.—This disease caused 27 deaths during 1946; for 1945 the number was 24 and for 1944, 10. The 1946 death rate was 0.6 per 100,000 population. Eighteen of the deaths occurred during the first year of life.

Diphtheria.—During 1946 thirteen persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.3 per 100,000 population. Six deaths were of children under one year of age. The death rate from diphtheria for 1888 was 148 per 100,000 population. During the decade beginning with 1900, the rate declined from 48 to 25. The following ten-year period showed a decline to 18. The rate for 1946 was decidedly favorable when compared with the 1946 rate for the United States, which was 0.9.

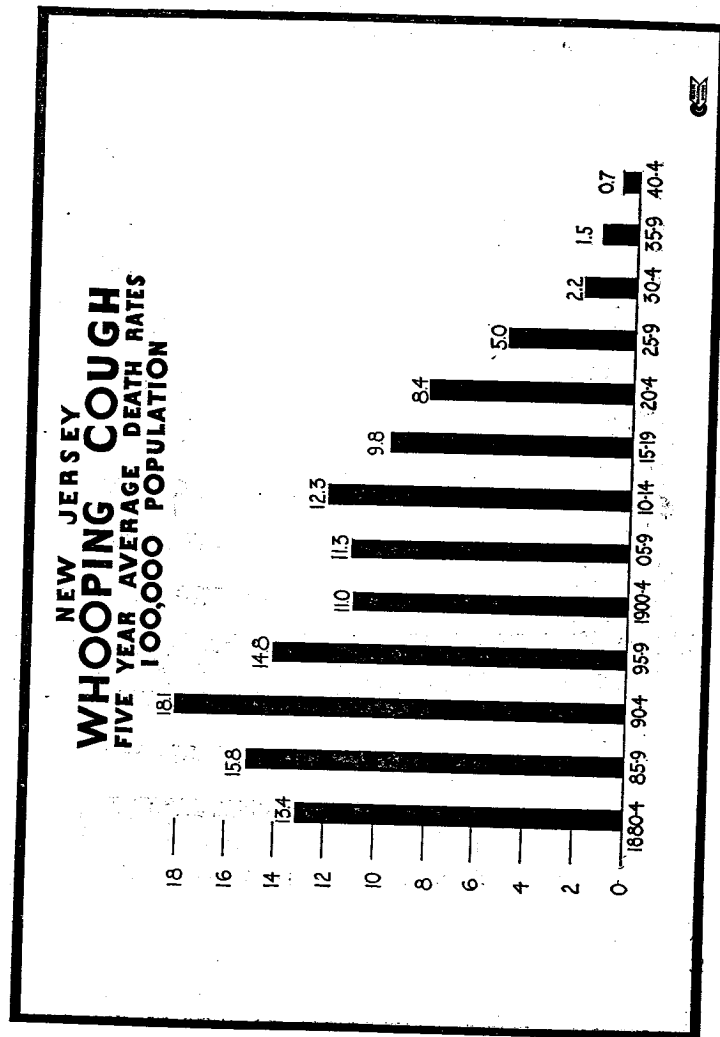


CHART 5

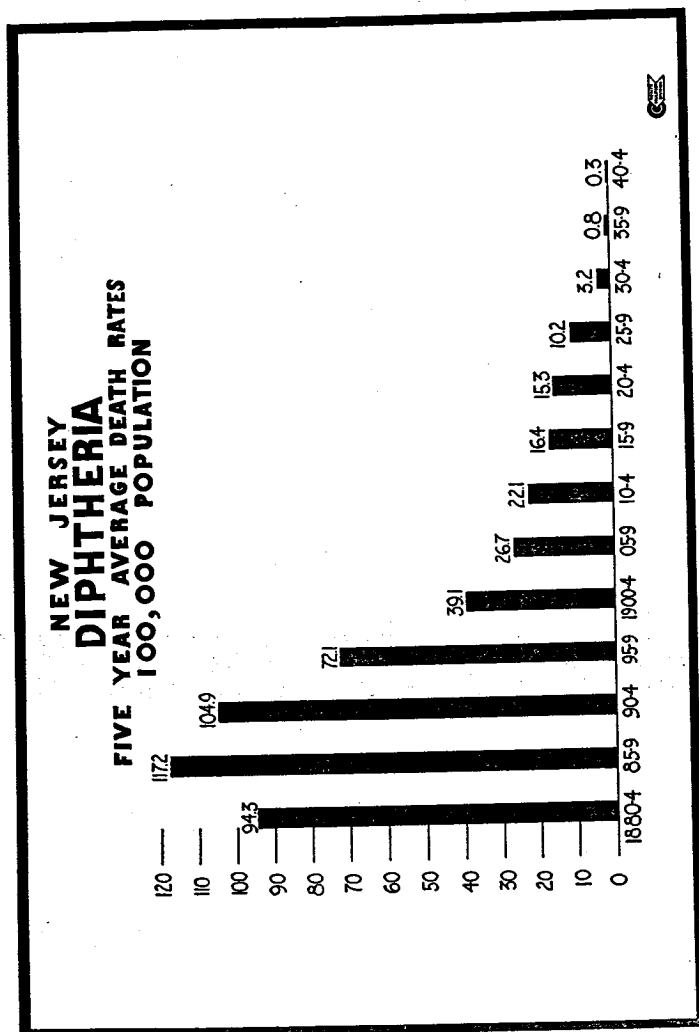


CHART 6

Tuberculosis.—The number of deaths from all forms of tuberculosis during 1946 was 1,643, of which 1,538 were deaths from tuberculosis of the respiratory system. The death rates per 100,000 population were 38.2 and 35.7, respectively. The rates for 1945 were 41.1 and 39.0.

White.—The number of deaths of white persons from all forms of tuberculosis was 1,258. This was equivalent to a rate of 30.9 per 100,000 white population. Similar figures for 1945 were 1,352 and 34.1.

Colored.—The number of deaths from all forms of tuberculosis was 385 and the rate was 162.6 per 100,000 of colored population. Similar figures for 1945 were 374 and 161.9.

Rates for tuberculosis of the respiratory system and other forms of tuberculosis, by color, may be obtained by reference to Table 15.

Cancer.—The number of deaths from cancer and other malignant growths for 1946 was 7,326 and the death rate was 170.2 per 100,000 population compared with 168.5 for the previous year. The mortality from the disease, with few exceptions, has steadily increased since the time records were first kept in New Jersey. This may be due, in some measure, to the increasing age of the population and also to more accurate diagnosis of the disease by physicians.

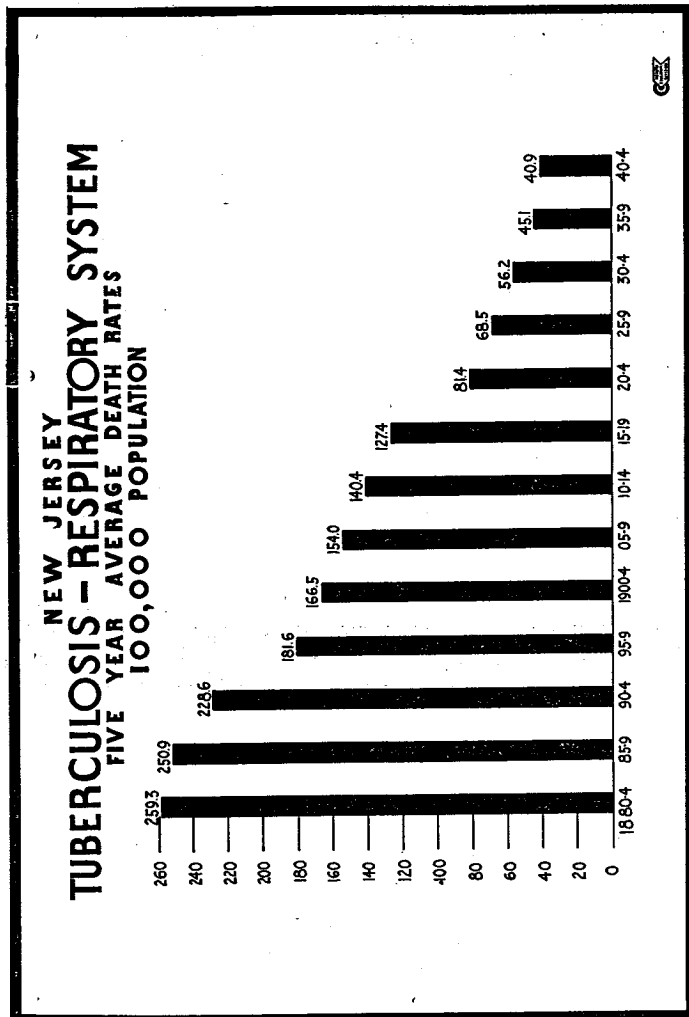


CHART 7

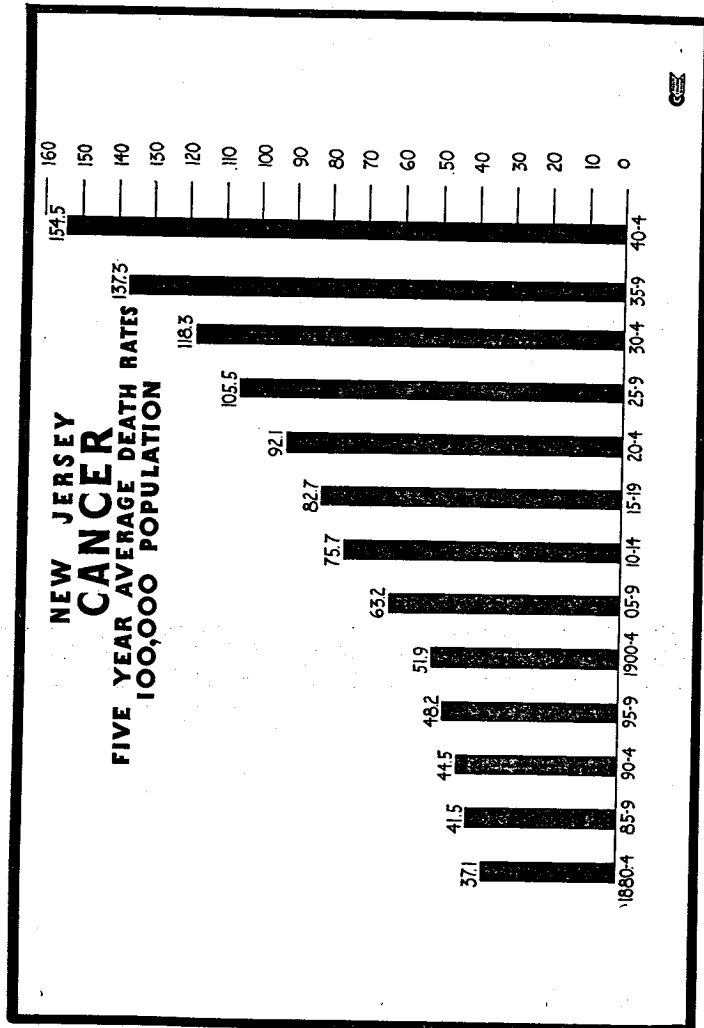


CHART 8

TABLE 12.—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY ORGAN AFFECTED—NEW JERSEY, 1946

	AGE PERIODS															Total								
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69		70 to 74	75 to 79	80 to 84	85 to 89	90 and over			
CANCER AND OTHER MALIGNANT TUMORS																								
Buccal Cavity and Pharynx—																								
Male	1	1	1	1	1	1	1	2	1	8	9	10	18	23	34	32	24	17	3	1	101			
Female	1	1	1	1	1	1	1	1	1	1	2	1	2	2	5	5	2	5	4	1	27			
Total	2	2	2	2	2	2	2	3	2	9	11	16	20	25	39	34	21	3	2	2	218			
Digestive Organs and Peritoneum—																								
Male	1	1	1	1	1	1	1	3	3	8	13	21	40	68	128	180	201	243	252	180	127	52	15	1668
Female	3	3	3	3	3	4	4	7	7	14	27	48	91	205	300	451	487	545	688	402	212	70	21	3445
Total	4	4	4	4	4	5	5	10	10	22	40	69	132	263	451	637	629	1,137	1,144	614	292	91	36	5,113
Respiratory System—																								
Male	1	1	1	1	1	1	1	2	2	5	12	10	47	89	102	121	90	60	17	10	0	2	2	598
Female	1	1	1	1	1	1	1	2	3	4	11	21	16	22	16	18	14	7	1	1	1	1	1	135
Total	2	2	2	2	2	2	2	4	5	9	23	17	63	111	118	145	115	73	31	22	7	2	2	733
Uterus—Female	2	2	2	2	2	2	2	4	13	27	33	50	70	60	60	52	42	23	11	1	1	1	1	538
Other Female Genital Organs	1	1	1	1	1	1	1	2	4	5	8	14	25	29	34	25	16	5	3	1	1	1	1	218
Breast—																								
Male	1	1	1	1	1	1	1	3	12	50	81	72	91	68	74	94	67	37	7	3	1	1	8	
Female	3	3	3	3	3	4	4	8	12	21	56	91	72	91	68	74	94	67	37	7	3	1	714	
Total	4	4	4	4	4	5	5	11	24	106	137	163	163	159	142	168	161	104	14	10	4	2	722	
Male Genital Organs	1	1	1	1	1	1	1	5	4	5	6	8	20	34	68	71	70	40	15	1	1	1	300	
Urinary Organs (Male and Female)—																								
Male	2	2	2	2	2	2	2	1	1	7	10	28	30	37	51	40	32	18	8	2	2	2	276	
Female	3	3	3	3	3	3	3	4	4	10	13	21	23	23	29	23	18	12	6	3	3	3	283	
Total	5	5	5	5	5	5	5	5	5	17	23	49	53	60	80	63	50	24	11	5	5	5	559	

Skin (Except Vulva and Scrotum)—																								
Male	1	1	1	1	1	1	1	2	2	2	2	5	6	6	8	8	11	7	6	2	2	2	64	
Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	41	
Total	2	2	2	2	2	2	2	3	3	3	3	6	7	7	9	9	12	8	7	3	3	3	105	
Brain and Other Parts of the Central Nervous System (Including Glioma, Except When Specified as Brain)—																								
Male	5	2	2	1	1	1	1	1	1	5	10	10	11	16	15	7	4	1	1	1	1	1	61	
Female	2	2	2	1	1	1	1	1	1	4	5	4	4	4	4	3	2	1	1	1	1	1	47	
Total	7	4	4	2	2	2	2	2	2	9	15	15	20	20	19	7	6	2	2	2	2	2	108	
Other and Unspecified Organs—																								
Male	1	1	1	1	1	1	1	2	2	7	10	32	39	32	27	30	15	14	1	1	2	2	250	
Female	3	1	1	2	2	2	2	4	4	11	13	22	27	18	30	18	12	6	7	3	3	283		
Total	4	2	2	3	3	3	3	6	6	18	23	54	66	50	57	48	27	21	8	4	5	5	533	
Total Male	1	9	6	5	12	18	14	33	65	105	217	302	468	560	604	566	398	203	67	16	3600			
Total Female	3	6	7	8	8	11	25	57	97	165	292	362	443	448	492	456	306	230	93	28	3627			
Total Male and Female	4	15	13	13	15	29	57	90	162	270	509	724	913	998	1,066	1,052	703	430	160	44	7327			

TABLE 13A.—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY PART OF BODY AFFECTED AND COLOR OF DECEDENT—NEW JERSEY, 1946

	Total		White		Colored	
	M	F	M	F	M	F
Cancer of the buccal cavity and pharynx	191	27	187	25	4	2
Lip	12	3	12	2	0	1
Tongue	57	0	54	0	3	0
Hard palate	30	4	30	4	0	0
Soft palate	28	5	28	5	0	0
Uvula	1	1	1	1	0	0
Other and unspecified sites	65	9	64	8	1	1
Cancer of the digestive organs and peritoneum	1877	1608	1700	1480	81	69
Esophagus	145	27	138	24	7	3
Stomach	611	376	575	361	36	15
Small intestine	310	206	300	195	10	11
Rectum and anus	420	574	410	552	13	22
Intestines (except duodenum and rectum)	101	210	100	210	0	0
Liver and biliary passages	222	10	222	10	0	0
Pancreas	22	10	22	10	0	0
Mesentery and peritoneum	27	23	21	4	2	2
Other and unspecified sites	308	135	574	120	24	0
Cancer of the respiratory system	4	2	3	2	0	0
Trachea	1	1	1	1	0	0
Larynx	2	0	2	0	0	0
Bronchus	166	30	187	26	9	5
Lung	384	64	323	91	11	8
Other and unspecified sites	26	7	25	7	2	0
Cancer of the uterus	538	231	472	201	60	30
Cervix	231	307	271	30	30	36
Other and unspecified sites	307	231	201	171	30	30
Cancer of other female genital organs	218	177	200	168	9	9
Ovary	3	3	3	3	0	0
Fallopian tube and parametrium	13	13	13	13	0	0
Vagina	24	24	24	24	0	0
Other and unspecified sites	1	1	1	1	0	0

Grand Totals 3089 3027 3648 3424 151 203

Encephalitis Lethargica or Sleeping Sickness.—Twenty-four deaths were assigned to this classification for the year 1946. In 1922, which was the year that the deaths were first separately classified, there were 45 deaths. Twenty deaths were recorded in 1945.

Nephritis.—Deaths due to acute and chronic nephritis totaled 2,639, compared with 2,935 for the previous year.

Suicide.—While deaths by this means increased considerably during the period 1926 to 1932, a reversal of trend started in 1933 and continued through 1936. Deaths for 1946 showed an increase of 47 over the number for 1945. Of the various means employed, poisonous gases held first place with hanging or strangulation and firearms in second and third places, respectively. The number of deaths by suicide for ten years follows:

1937	588	1942	537
1938	682	1943	492
1939	563	1944	483
1940	664	1945	519
1941	598	1946	566

TABLE 14A.—VIOLENT OR ACCIDENTAL DEATHS IN NEW JERSEY, 1946

(International Classification Numbers 163-186)

SUICIDE BY SOLID OR LIQUID POISONS	0	ACIDENTAL ABSORPTION OF POISONOUS GAS	64
Barbituric acid and derivatives	13	Carbon monoxide gas	14
Cresol compounds	4	Other carbon monoxide gas	3
Mercury and compounds	1	ACUTE ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS	15
Nix vomics and strychnine	18	Arsenic and compounds	1
Other solid or liquid poisons	26	Barbituric acid and derivatives	1
SUICIDE BY POISONOUS GASES	150	Cresol compounds	1
Illuminating gas	150	Mercury and compounds	1
Other gas	150	Carbon monoxide and strychnine	1
Other poisonous gases	150	Cyanide compounds	1
SUICIDE BY OTHER MEANS	150	Lead and compounds	1
Drowning	150	Tobacco and derivatives	1
Firearms and explosives	150	Narcotics and other poisons	1
Cutting or piercing instruments	150	Other and unspecified substances	1
Drowning from high places	150	Confagration	1
Other or unspecified means	150	Accidental burns (except due to confagration)	1
Infanticide (homicide of infants under 1 year of age)	150	Accidental mechanical asphyxiation	1
Homicide by firearms	150	Accidental injury by firearms	1
Homicide by cutting or piercing instruments	150	Accidental injury by other instruments	1
Homicide by other means	150	Accidental injury by fall or crushing	1
Railway accidents (except collisions with motor vehicles)	150	Crushing	1
MOTOR VEHICLE ACCIDENTS	22	Fall	1
Collisions between automobiles and trains	22	Cataclysm (all deaths attributed to a cataclysm regardless of their nature)	1
Collisions between automobiles	22	Injury by animals (not specified as venomous or occurring in the nature of a cataclysm)	1
Automobile accidents (except collisions with trains or streetcars)	22	Hunger or thirst	1
Motorcycle accidents (except collisions with automobiles)	22	Excessive cold	1
STREETCAR AND OTHER ROAD-TRANSPORT ACCIDENTS	15	Excessive heat	1
Streetcar accidents (except collisions with trains or motor vehicles)	15	Lightning	1
Other and unspecified road-transport accidents	15	Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations)	1
Water-transport accidents	15	OTHER ACCIDENTS	1
Air-transport accidents	15	Samples of preventive immunization, inoculation or vaccination	1
Accidents in mines and quarries	15	Other accidents due to medical or surgical intervention	1
AGRICULTURAL AND FORESTRY ACCIDENTS	5	Lack of care of the newborn	1
Accidents involving agricultural machinery and vehicles	5	Obstruction, suffocation or puncture by ingested objects	1
Injury by animals in agriculture	5	Other and unspecified accidents	1
Accidents involving forestry machinery and vehicles	5		
Other forestry accidents	5		
Other accidents involving machinery	5		
Food poisoning	5		

TABLE 13B.—MOTOR VEHICLE FATALITIES IN NEW JERSEY BY TYPE OF ACCIDENT—1946

Total	739
Collision with	
Railroad train	22
Street car	2
Horse drawn vehicle	...
Motorcycle	14
Pedestrian	376
Bicycle	19
Other motor vehicle	155
Fixed object	95
Non-collision	56
Type not stated	...

TABLE 13C.—ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND PLACE OF OCCURENCE—1946

(International Classification Numbers 169-195)

	Total	Home	Accident in			Other	Not Stated
			Farm	Industrial Place	Public Place		
Total	2,464	990	31	196	1,211	..	36
Poisonous gas	141	135	1	3	2	..	..
Burns	155	99	6	28	22	..	..
Mechanical suffocation	50	44	..	1	5	..	..
Drowning	183	10	1	6	166	..	..
Cutting or piercing	7	1	1	1	3	..	1
Fall	883	594	9	64	203	..	13
Crushing, landslide	818	9	6	49	751	..	3
Electric currents	20	3	2	12	3	..	..
Other and unspecified injuries	207	95	5	32	56	..	19

These totals vary, in some instances, from figures in the other tabulations of accidental deaths. The deaths are classified by the immediate causes irrespective of the nature of the accidents.

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TABLE 13D.—DEATHS IN NEW JERSEY FROM CERTAIN TYPES OF ACCIDENTS
BY PLACE OF ACCIDENT—1946

(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total	2,464	739	841	165	173
Atlantic County	91	35	30	6	2
Bergen County	219	69	81	13	18
Burlington County	68	32	12	4	7
Camden County	161	51	51	9	15
Cape May County	38	7	6	8	8
Cumberland County	53	19	16	5	5
Essex County	407	101	201	23	11
Gloucester County	61	29	12	5	5
Hudson County	318	55	135	34	32
Hunterdon County	41	19	8	..	2
Mercer County	138	46	46	12	7
Middlesex County	138	46	36	10	8
Monmouth County	153	51	43	1	11
Morris County	72	19	23	4	7
Ocean County	51	16	9	1	7
Passaic County	144	40	51	10	12
Salem County	42	18	4	4	3
Somerset County	53	15	17	4	1
Sussex County	29	12	6	..	2
Union County	138	40	39	9	10
Warren County	27	12	7	2	..
Other States	20	7	8	1	..
Not stated	2	..	..	..	..

BUREAU OF VITAL STATISTICS

TABLE 13E.—ACCIDENTAL DEATHS IN NEW JERSEY BY MONTH OF DEATH—1946
(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total	2,464	739	841	165	173
January	237	79	74	17	12
February	214	68	55	22	10
March	221	63	73	25	12
April	187	59	65	13	17
May	190	48	79	6	16
June	175	42	66	8	27
July	204	46	80	11	30
August	195	64	57	5	24
September	182	59	62	8	11
October	235	79	78	7	8
November	185	54	67	20	4
December	239	78	85	23	2

TABLE 13F.—ACCIDENTAL DEATHS IN NEW JERSEY BY AGE OF DECEASED—1946
(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
All ages	2,464	739	841	165	173
Under 5 years	156	30	15	28	15
5 to 9	74	28	3	11	22
10 to 14	62	18	1	4	16
15 to 19	99	49	4	4	15
20 to 24	131	66	6	5	18
25 to 64	1,058	403	227	75	74
65 and over	884	145	585	38	13

TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL, IN NEW JERSEY—1946

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Males—Percentage of Total	Females—Percentage of Total
	ALL CAUSES	100.0	54	46
1	Typhoid and paratyphoid fevers	0.0	100	..
2	Plague	0.0	40	60
3	Scarlet fever	0.1	48	52
4	Whooping cough	0.0	33	67
5	Diphtheria	3.3	63	37
6	Tuberculosis of the respiratory system	0.2	51	49
7	All other forms of tuberculosis	0.0	100	..
8	Malaria	0.6	74	26
9	Syphilis	0.2	50	50
10	Influenza	..	..	..
11	Smallpox	0.1	63	37
12	Measles	0.0	67	33
13	Typhus fever	0.5	61	39
14	Other infectious or parasitic diseases	15.9	50	50
15	Cancer and other malignant tumors	0.4	35	65
16	Nonmalignant tumors or tumors of unspecified nature	0.1	38	62
17	Chronic rheumatism and gout	3.0	30	70
18	Diabetes mellitus	0.1	74	26
19	Chronic or acute alcoholism	..	..	..
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	1.2	46	54
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	0.4	50	50
22	Intracranial lesions of vascular origin	8.6	47	53
23	Other diseases of the nervous system and sense organs	0.7	50	50
24	Diseases of the heart	35.2	57	43
25	Other diseases of the circulatory system	2.5	48	52
26	Bronchitis	0.2	53	47
27	Pneumonia and bronchopneumonia	3.1	55	45
28	Other diseases of the respiratory system	0.6	58	42
29	Diarrhea and enteritis	0.3	61	39
30	Appendicitis	0.4	66	34
31	Diseases of the liver and biliary passages	1.7	54	46
32	Other diseases of the digestive system	1.8	63	37
33	Nephritis	5.7	51	49
34	Other diseases of the urinary and genital systems	0.9	77	23
35	Puerperal infection	0.1	..	100
36	Other diseases of pregnancy, childbirth, and the puerperium	0.2	..	100
37	Diseases of the skin, cellular tissue, bones, and organs of movement	0.1	46	54
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	4.7	59	41
39	Senility, old age	0.4	36	64
40	Suicide	1.2	70	30
41	Homicide	0.2	65	35
42	Automobile accidents (all motor-driven road vehicles)	1.6	78	22
43	Other violent or accidental deaths (suicide, homicide, and auto-mobile accidents excepted)	3.6	62	38
44	Causes of death ill-defined, unknown, or unspecified	0.1	78	22

TABLE 15—DEATH RATES, TOTAL WHITE AND COLORED, FROM IMPORTANT CAUSES, PER 100,000 TOTAL, WHITE AND COLORED POPULATION IN NEW JERSEY—1946

Abridged International List Number	CAUSE OF DEATH	Total Deaths per 100,000 Estimated Population	White Deaths per 100,000 Estimated White Population	Colored Deaths per 100,000 Estimated Colored Population
	ALL CAUSES	1074.8	1057.8	1386.5
1	Typhoid and paratyphoid fevers	0.1	0.0	0.4
2	Plague	..	..	..
3	Scarlet fever	0.1	0.1	..
4	Whooping cough	0.6	0.4	3.8
5	Diphtheria	0.3	0.3	..
6	Tuberculosis of the respiratory system	35.7	29.2	147.4
7	All other forms of tuberculosis	2.4	1.7	15.2
8	Malaria	0.0	0.0	..
9	Syphilis	6.4	5.1	29.6
10	Influenza	2.4	2.1	7.2
11	Smallpox	..	..	..
12	Measles	0.6	0.6	0.4
13	Typhus fever	0.1	0.1	..
14	Other infectious or parasitic diseases	5.7	5.5	8.4
15	Cancer and other malignant tumors	170.2	171.4	149.5
16	Nonmalignant tumors or tumors of unspecified nature	4.5	4.5	7.2
17	Chronic rheumatism and gout	9.9	9.9	9.8
18	Diabetes mellitus	32.3	33.1	19.0
19	Chronic or acute alcoholism	1.4	1.2	5.5
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	12.8	12.9	11.8
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3.8	3.8	6.3
22	Intracranial lesions of vascular origin	91.7	90.7	108.6
23	Other diseases of the nervous system and sense organs	7.3	7.1	10.6
24	Diseases of the heart	378.2	380.4	841.8
25	Other diseases of the circulatory system	27.0	27.3	22.8
26	Bronchitis	2.3	2.2	3.0
27	Pneumonia and bronchopneumonia	33.4	31.1	73.5
28	Other diseases of the respiratory system	6.7	6.6	8.4
29	Diarrhea and enteritis	3.6	3.4	7.6
30	Appendicitis	4.1	4.1	4.2
31	Diseases of the liver and biliary passages	13.8	19.2	11.0
32	Other diseases of the digestive system	18.9	18.8	21.5
33	Nephritis	61.3	58.5	109.8
34	Other diseases of the urinary and genital systems	9.3	9.1	13.1
35	Puerperal infection	0.9	0.9	2.1
36	Other diseases of pregnancy, childbirth, and the puerperium	1.8	1.6	5.9
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1.4	1.3	3.0
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	50.3	48.1	87.9
39	Senility, old age	4.3	4.3	3.8
40	Suicide	13.1	13.4	9.3
41	Homicide	2.4	1.5	13.2
42	Automobile accidents (all motor-driven road vehicles)	16.9	16.4	23.3
43	Other violent or accidental deaths (suicide, homicide, and auto-mobile accidents excepted)	39.0	37.8	60.0
44	Causes of death ill-defined, unknown, or unspecified	1.3	1.3	3.0

TABLE 16.—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATH, IN NEW JERSEY—1946

CAUSE OF DEATH	MONTH OF DEATH											
	January	February	March	April	May	June	July	August	September	October	November	December
ALL CAUSES	46291	39771	40200	38337	38444	36448	35322	32900	30000	33822	37122	42998
1 Typhoid and paratyphoid fevers.....	3	1	2	1	1	1	1	1	1	1	1	1
2 Scarlet fever.....	5	1	2	1	1	1	1	1	1	1	1	1
3 Diphtheria.....	27	4	5	4	4	4	3	3	3	3	3	3
4 Whooping cough.....	27	4	5	4	4	4	3	3	3	3	3	3
5 Tuberculosis of the respiratory system.....	13	3	11	10	10	12	11	11	10	12	11	11
6 All other forms of tuberculosis.....	1088	8	15	17	11	9	5	5	7	8	4	7
7 Syphilis.....	2	38	22	21	18	21	19	26	32	20	20	21
8 Influenza.....	102	37	9	7	9	5	1	1	1	0	1	1
9 Smallpox.....	27	1	4	8	11	2	1	1	1	1	1	1
10 Measles.....	245	31	20	17	18	21	14	13	18	25	21	22
11 Other infectious or parasitic diseases.....	7320	673	829	830	851	627	606	600	570	671	607	694
12 Cancer and other malignant tumors.....	1098	17	16	16	16	18	27	10	12	14	11	12
13 Nonmalignant tumors or tumors of unspecified nature.....	380	3	3	6	6	6	2	1	1	3	4	5
14 Chorea.....	1381	144	117	129	100	121	120	109	104	106	107	125
15 Diabetes mellitus.....	61	6	7	8	1	6	5	5	3	2	0	8
16 Chronic or acute alcoholism.....	553	50	31	50	38	43	48	35	50	53	47	52
17 Avitaminoses, other general diseases, diseases of the nervous system, and diseases of the spinal cord.....	163	17	16	20	8	10	16	13	10	11	0	15
18 Intracranial lesions of vascular origin.....	3947	353	304	323	357	286	319	271	263	322	308	380
19 Other diseases of the nervous system and sense organs.....	313	33	26	31	28	25	24	28	20	20	22	23
20 Diseases of the heart.....	16270	1751	1824	1410	1344	1320	1167	1075	1215	1251	1360	1581
21 Other diseases of the circulatory system.....	1164	109	98	115	96	92	83	84	71	103	81	118
22 Bronchitis.....	91	10	6	8	1	9	4	4	7	11	6	13

27 Pneumonia and bronchopneumonia.....	1438	245	177	137	128	168	70	83	61	80	90	108
28 Other diseases of the respiratory system.....	287	31	22	21	21	21	19	15	15	23	33	19
29 Appendicitis.....	155	13	19	13	15	11	11	16	17	22	10	6
30 Diseases of the liver and biliary passages.....	808	19	10	12	17	21	16	12	10	17	6	7
31 Nephritis.....	814	81	68	67	68	65	68	66	57	71	10	12
32 Other diseases of the urinary and genital systems.....	2689	271	221	242	231	230	220	208	179	223	194	224
33 Puerperal infection.....	402	38	30	35	38	41	39	27	33	33	24	42
34 Other diseases of pregnancy, childbirth, and the puerperium.....	49	3	3	4	2	6	0	2	0	4	2	1
35 Diseases of the skin, cellular tissue, bones, and organs of movement.....	79	4	0	0	8	10	6	7	8	5	10	6
36 Congenital malformations and debility.....	01	0	7	0	2	4	0	10	3	3	1	5
37 Senility, old age.....	2164	140	128	145	147	179	191	172	182	243	240	106
38 Suicide.....	184	21	19	16	20	11	13	18	10	17	27	20
39 Homicide.....	566	49	51	40	52	32	37	43	38	49	42	48
40 Automobile accidents.....	104	6	5	13	10	6	0	10	4	15	8	9
41 Other motor-vehicle accidents (all motor-driven vehicles excepted).....	728	77	68	67	48	41	41	67	63	77	50	78
42 Other violent accidents (accidental deaths (suicide, homicide, and auto accidents excepted), and accidents of unknown cause).....	1679	131	138	100	127	133	127	159	118	121	159	150
43 Causes of death ill-defined, unknown, or unspecified.....	58	8	5	7	8	6	4	6	2	3	3	4

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TABLE 12.—DEATHS (exclusive of suicides) BY CAUSES, BY DAYS, WEEKS AND MONTHS OF THE FIRST YEAR OF LIFE IN NEW JERSEY—1946

Abbreviated International List Number	CAUSE OF DEATH	AGE UNDER 1 YEAR, IN COMPLETED DAYS, WEEKS AND MONTHS																			
		DAYS			WEEKS			MONTHS													
		Under 1 Year	Under 1	One	Two	3 to 6	Under 1	One	Two	Three	Under 1	One	Two	Three	Under 1	One	Two	3 to 6	6 to 8	9 to 11	
	ALL CAUSES	2705	695	839	184	247	1705	81	83	89	2020	160	124	208	114	70					
1	Typhoid and paratyphoid fevers																				
2	Diphtheria																				
3	Epidemic typhus																				
4	Whooping cough	18																			
5	Diphtheria																				
6	Tuberculosis of the respiratory system																				
7	All other forms of tuberculosis																				
8	Scarlet fever																				
9	Strangles																				
10	Infuenza																				
11	Smallpox																				
12	Measles																				
13	Measles fever																				
14	Scarlet fever																				
15	Other infectious or parasitic diseases																				
16	Cancer and other malignant tumors																				
17	Nonmalignant tumors or tumors of unspecified nature																				
18	Chorea, choreiform and gout																				
19	Diabetes mellitus																				
20	Chronic or acute alcoholism																				
21	Avitaminoses, other general diseases, diseases of the blood, and diseases of the respiratory, circulatory, genitourinary (gonorrhoeal) and diseases of the spinal cord																				
22	Intracranial lesions of vascular origin																				
23	Other diseases of the nervous system and sense organs																				
24	Diseases of the heart																				
25	Other diseases of the circulatory system																				

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26	Bronchitis	7																			
27	Pneumonia and bronchopneumonia	213	6	12	8	10	45	5	0	16	62	30	27	62	40	16					
28	Other diseases of the respiratory system	92																			
29	Diarrhea and enteritis																				
30	Appendicitis	2																			
31	Diseases of the liver and biliary passages	1																			
32	Other diseases of the digestive system	20	1	1	1	3	1	1	1	1	4	2	2	0	3	3					
33	Other diseases of the urinary and genital systems	4	1																		
34	Fracture of femur																				
35	Other diseases of pregnancy, childbirth, and the puerperium																				
36	Other diseases of the cellular tissue, bones, and organs of movement	1																			
37	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life (noncommunicable diseases excluded)	2107	972	317	108	241	1688	72	61	53	1874	74	42	66	28	23					
38	Other diseases of the first year of life (communicable diseases included)	424	119	37	28	57	238	20	22	21	310	40	28	48	27	21					
	Premature birth (no other cause stated)	1103	632	177	80	85	904	30	26	23	1073	23	4	5	1						
	Injury at birth (no other cause stated)	210	74	53	32	32	101	7	2	2	202	4	3	1							
39	Other diseases peculiar to the first year of life	208	128	50	27	57	252	0	8	3	283	6	8	7							
40	Stomach, old age																				
41	Stomach																				
42	Automobile accidents (all motor-driven road vehicles)	8	6	1			7		1		8										
43	Other accidents or accidental deaths (suicide, homicide and motor vehicle accidents excepted)	65																			
44	Causes of death ill-defined, unknown, or unspecified	9	3	4	1	1	8		1	1	3	13	15	16	0	6					

TABLE 19.—DEATHS (exclusive of stillbirths) UNDER ONE YEAR OF AGE, BY CAUSES AND MONTHS OF DEATH IN NEW JERSEY—1946

Abridged Interna- tional List Number	CAUSE OF DEATH	MONTH OF DEATH												
		January	February	March	April	May	June	July	August	September	October	November	December	
	ALL CAUSES	2705	200	181	201	193	221	222	213	227	203	274	212	209
1	Typhoid and paratyphoid fevers													
2	Plague													
3	Scarlet fever													
4	Whooping cough	18	3	1	2	4	4	1	3	1			1	2
5	Diphtheria													
6	Tuberculosis of the respiratory system	4	2	1	1	1	1	1						1
7	All other forms of tuberculosis	3	1	1	1	1	1	1						1
8	Malaria	5	2	3	1	3	1	3	1	2	1	1	2	1
9	Syphilis													
10	Smallpox	20	4	2	3	1	3	1						1
11	Measles	3	3	1	1	1	1	1						1
12	Typhus fever													
13	Other infectious or parasitic diseases	4	1	1	1	1	1	1	1	1	1	1	1	1
14	Congenital malformations	4												
15	Nonmalignant tumors or tumors of unspecified nature	3	1			1								
17	Chronic rheumatism and gout													
18	Diabetes mellitus													
19	Alcoholism													
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	36	4	2	8	2		2	2	2		3	4	7
21	Meningitis (nonmeningococcal) and diseases of the spinal cord, and diseases of the meninges	11	1	1	2	2	2	2	1	1	4			2
22	Infectious mononucleosis	10				2								
23	Other diseases of the nervous system and sense organs	15	1	1	3	2	1		1	2	1	1		2
24	Diseases of the heart	2				1								
25	Other diseases of the circulatory system													

26	Bronchitis and bronchiolitis	7	1	1	1	1	1	1	1	1	1	1	1	2
27	Pneumonia	243	32	33	13	143	18	16	20	14	9	12	20	83
28	Other diseases of the respiratory system	2							1	1	1		1	1
29	Diarrhea and enteritis	92	8	11	6	10	1	6	4	1	16	8	4	1
30	Appendicitis	2												
31	Diseases of the liver and biliary passages	1	1	2	2	1	2	1	3	3	2	1	2	
32	Other diseases of the digestive system	4							1					
33	Nephritis													
34	Other diseases of the urinary and genital systems													
35	Puerperal infection													
36	Other diseases of pregnancy, childbirth, and the puerperium													
37	Diseases of the skin, cellular tissues, bones, and cartilages	1												
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year	2107	144	120	144	143	173	186	164	177	226	218	101	201
	Congenital malformations (stillbirths not included)	52	4	4	25	39	27	41	37	38	45	52	39	45
	Premature birth (no other cause stated)	1163	66	54	79	73	102	101	87	97	120	121	63	141
	Other diseases peculiar to the first year of life	210	16	20	11	10	18	18	21	33	23	27	15	15
39	Senility, old age	398	21	30	14	21	24	27	23	29	25	37	26	33
40	Suicide													
41	Homicide	8			2	1	1		2				1	1
42	Automobile accidents (all motor-driven road vehicles)													
43	Other violent or accidental deaths (airplane, homicide, and automobile accidents excepted)	63	8	4	8	4	3	3	5	4	4	7	5	10
44	Causes of death ill-defined, unknown, or unspecified	9			2		1	1	4					

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE)

	Essex County	Delaware	Bloomfield	East Orange	Irrington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
1. Typhoid fever														
2. Paratyphoid fever														
3. Plague														
4. Cholera														
5. Undulant fever (brucellosis)	10							1	7		1			2
6. Cerebrospinal (meningococcus) meningitis														
7. Anthrax (infection by Bacillus anthracis)														
8. Scarlet fever									1				1	
9. Whooping cough									1					1
10. Diphtheria	1								1					
11. Erysipelas	1													
12. Tetanus	365	2	7	26	9	2	2	9	27	2	18	2	9	19
13. Tuberculosis of the respiratory system														
14. Tuberculosis of the meninges and central nervous system	13	1		1					7		1		2	
15. Tuberculosis of the intestines and peritoneum	3								2					1
16. Tuberculosis of the vertebral column	3			1					3					
17. Tuberculosis of the bones and joints	2								2					
18. Tuberculosis of the skin and subcutaneous cellular tissue														
19. Tuberculosis of the lymphatic system	2								2					
20. Tuberculosis of the genito-urinary system	1										1			
21. Tuberculosis of other organs	2							1	15					
22. Disseminated tuberculosis	15		1											
23. Leprosy									2					
24. Septicæmia and purulent infection (non-puerperal)	2				1				2				1	
25. Gonococcus infection	4													
26. Other diseases due to bacteria (except dysentery)	1	1												
27. Dysentery														1
28. Malaria														
29. Other diseases due to parasitic protozoa	64	2	5	4			2	42	3	3	1			4
30. Syphilis														
31. Relapsing fever	5	1	1						3					
32. Other diseases due to spirochetes	13		3	1				1	4					3
33. Influenza														
34. Smallpox	3	1										1		
35. Measles														
36. Acute poliomyelitis and acute poliomyelitis	8		1						6		1			
37. Acute infectious encephalitis (lethargic)	4								2				1	
38. Other diseases due to filtrable viruses	3								1					
39. Typhus fever and typhus-like diseases (due to Rickettsia)														
40. Ankylostomiasis														
41. Hydatid disease														
42. Other diseases caused by helminths														
43. Miceos	2							1		1				
44. Other infectious and parasitic (communicable) diseases	19		4	3	2			6	2	1				
45. Cancer of the buccal cavity and pharynx	47	5	2	2	2		1	28		4	1	2	8	
46. Cancer of the digestive organs and peritoneum	632	21	31	59	56	11	4	38	252	14	34	12	20	53
47. Cancer of the respiratory system	159	6	4	16	7			1	24	4	4	4	2	11
48. Cancer of the uterus	98	2	5	10	6			7	49	3	4	1	2	9
49. Cancer of other female genital organs	48	1	1	5	1	1	1	3	23	1	3	3	2	
50. Cancer of the breast	168	8	12	23	11	4	3	11	65	6	6	7	4	13
51. Cancer of the male genital organs	55	1	4	10				7	22	2	2	1	1	11
52. Cancer of the urinary organs (male and female)	101	9	3	9	6	6	1	9	50	1	3		1	4
53. Cancer of the skin (except vulva and scrotum)	19	1	1	3	1	1			9		1			1

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS (PLACES WHICH FOLLOW): 1946

	Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Essex County	Mercer County	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.	
1. Typhoid fever																											
2. Paratyphoid fever																											
3. Plague																											
4. Cholera																											
5. Undulant fever (brucellosis)		4					1		1		2				2			1	5				2			3	
6. Cerebrospinal (meningococcus) meningitis																											
7. Anthrax (infection by Bacillus anthracis)																											
8. Scarlet fever								3							1			1					1				
9. Whooping cough								1			1							4				2					
10. Diphtheria		1																									
11. Erysipelas		1																									
12. Tetanus	3	306	25	1	4	27	181	9	6	3	26	7	15	9	97	5	64	65		3	19	13	1	2	5	7	
13. Tuberculosis of the respiratory system																											
14. Tuberculosis of the meninges and central nervous system		8	1			1				1								1	1								
15. Tuberculosis of the intestines and peritoneum															1												
16. Tuberculosis of the vertebral column		1	1																							1	
17. Tuberculosis of the bones and joints																											
18. Tuberculosis of the skin and subcutaneous cellular tissue		1						1																			
19. Tuberculosis of the lymphatic system		4					1		1						2		2										
20. Tuberculosis of the genito-urinary system																											
21. Tuberculosis of other organs		7	1				6								1	3	3	2	1								
22. Disseminated tuberculosis																											
23. Leprosy								1	1																		
24. Septicæmia and purulent infection (non-puerperal)		2													1												
25. Gonococcus infection																											
26. Other diseases due to bacteria (except dysentery)		3					3																				
27. Dysentery																											
28. Malaria																											
29. Other diseases due to parasitic protozoa		34	1				8	18	2		1	3	1	3	13	2	7	15			6	2				1	
30. Syphilis																											
31. Relapsing fever		4					3																				
32. Other diseases due to spirochetes		1	3																								
33. Influenza		1																									
34. Smallpox		4	2																								
35. Measles																											
36. Acute poliomyelitis and acute poliomyelitis		1																									
37. Acute infectious encephalitis (lethargic)		5					3	1																			
38. Other diseases due to filtrable viruses																											
39. Typhus fever and typhus-like diseases (due to Rickettsia)																											
40. Ankylostomiasis																											
41. Hydatid disease																											
42. Other diseases caused by helminths																											
43. Miceos																											
44. Other infectious and parasitic (communicable) diseases		10					2	2	1	4					5			3	1								
45. Cancer of the buccal cavity and pharynx	1	33	1		1	6	21		3		1			1	9	1	6	8		1		4		1	1	1	
46. Cancer of the digestive organs and peritoneum	4	576	65	8	38	263	36	39	4	64	18	36	25	167	4	109	161	8	11	25	33	3	3	5	17		
47. Cancer of the respiratory system	1	128	12		2	10	62	9	7	17	9	7	1	35	5	35	33	1	2	6	9	1	2	3	5	5	
48. Cancer of the uterus	1	80	11	2	1	7	41	4	5	1	5	1	2	4	29	1	14	19	1	1	1	1	1	2	3		
49. Cancer of other female genital organs	1	35	7			2	15	2	3		9	1	2	4	12	1	7	4		1	1	1	1	1	2	3	
50. Cancer of the breast	2	110	6		2	9	52	6	4	1	19	4	7	8	34	2	17	18	1	1	2	2	2	1	2	2	
51. Cancer of the male genital organs	2	47	3			32					5	1	2	6	18		10	19			3	3	1	1	1	1	
52. Cancer of the urinary organs (male and female)	1	68	9			5	29	5	2	2	6	1	3	4	8		8	14		1	2	4		2	1		
53. Cancer of the skin (except vulva and scrotum)	13	2	1			4	2	1		1	1	1															

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE)

	Essex County	Belleisle	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Glocester County
54. Cancer of the brain and other parts of the central nervous system	22	1		2	1			1	12	1	1			6
55. Cancer of other and unspecified organs	101	3	3	8	1		1	11	46	2	8	3	5	6
56. Nonmalignant tumors (including dermoid cysts)	33		1	5	4		1	3	16	1	2	1	2	2
57. Tumors of unspecified nature	23		1	3	1		2	1	9	1	2	1	2	2
58. Acute rheumatic fever	4								4					
59. Chronic rheumatism and other rheumatic diseases	9	1		1	2				3	1			1	1
60. Gout														
61. Diabetes mellitus	290	9	14	31	22	5	3	7	162	6	11	4	6	27
62. Diseases of the pituitary gland	3								3					
63. Diseases of the thyroid and parathyroid glands	23		3	1	3				12	1		1	1	1
64. Diseases of the thymus gland	5		1					1	3					
65. Diseases of the adrenal glands (not specified as tuberculous)	2								1			1		
66. Other general diseases	2			1					1					
67. Scurvy														
68. Beriberi														
69. Pellagra	1								1					
70. Rickets	1													
71. Avitaminoses	1								1					
72. Hemorrhagic conditions	1								1					
73. Anemias (except splenic anemia)	12		2	2	1		1	2	5		1	1	1	1
74. Leukemias and leukemias	56		3	4	1	2		3	31	3	1	1	2	7
75. Diseases of the spleen	4								1					
76. Other diseases of the blood and blood-forming organs	3			1	1				1					
77. Alcoholism	12				1				10			1		
78. Lead poisoning														
79. Chronic poisoning by other mineral or organic substances														
80. Encephalitis (nonepidemic)	9	1							6		1			
81. Meningitis (not due to meningococcus)	6				1				5					
82. Diseases of the spinal cord (except locomotor ataxia and disseminated sclerosis)	24	1	1	2	1			3	13					1
83. Intracranial lesions of vascular origin	722	23	41	87	45	18	11	44	350	19	24	14	18	81
84. Mental diseases and deficiency (except general paralysis of the insane)	13			1	1			1	9			1		
85. Epilepsy	11	1							6	1	1			1
86. Convulsions (under 5 years of age)	1								1					
87. Other diseases of the nervous system	25		3	3	4			1	11		1	1		2
88. Diseases of the organs of vision														
89. Disease of the ear and mastoid process	6	1			1			1	2	1				1
90. Pericarditis (except acute rheumatic)	4								2		1			
91. Acute endocarditis (except rheumatic)	7	1						1	3					2
92. Chronic affections of the valves and endocardium	164	5	10	16	12	3	3	7	73	6	9	3	8	22
93. Diseases of the myocardium	2144	42	80	235	112	47	27	105	1152	44	110	46	65	114
94. Diseases of the coronary arteries and angina pectoris	830	26	41	84	63	33	15	55	377	22	32	12	25	106
95. Other diseases of the heart	191	8	10	11	9	4	1	8	115	3	6	3	7	16
96. Aneurysm (except of heart and aorta)	18		2	1	1			1	9		2		1	
97. Arteriosclerosis (except coronary or renal sclerosis)	163	2	14	14	10	4		9	91	1	6	3	5	12
98. Gangrene	2								1					
99. Other diseases of the arteries	14		2					1	6	2	1		2	1
100. Diseases of the veins	5		1						3		1			
101. Diseases of the lymphatic system									1					
102. High blood pressure (idiopathic)	10		1		1				6	1				
103. Other diseases of the circulatory system														
104. Diseases of the nasal fossae and accessory sinuses	1													

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS (PLACES WHICH FOLLOW): 1946—Continued

	Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Keamy	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Princeton	Trenton	Middlesex County	Carlisle	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.		
	14	2		1	3	5	27	1	3		4	4	1	3	3	2	4	11	1		3	2	1	1	1	3		
	62	10	1	3	1	5	2	5	3		4	1	3	3	23	2	17	29	1		4	4	1	1	3			
	1					1	9	1	1		1	2	1		3	4	1	3	10			1	1	1	1	1		
	11	1				1	2		1		1	2	1		3	2	1	4				1	1	1	1	1		
	8					1	2		1		1	1			3	3	1	3				1	1	1	1	1		
	4					1	3							1	2	1	1	1			1	1						
	213	25	4	3	24	91	9	16	3	20	4	13	4	56	1	42	62	2	3	9	5	2	1	1	9			
	14	3			1	7			1		2		1	1	5	4	5			1							2	
	3													5	5	3	2											
	2					1			1						1	1	1											
	1					1	1																					
	3	1				1	1		2				3		4		2	2				2						
	13	2				1	5		4				3		4		2	3				1					1	
	31	2			3	4	13		4		4		1	1	10	7	13	1			1	3	1		1	1		
	3					1	2								1	1	1					1						
	8					1	5				1						4	4			1	2						
	4						3				1				2													
	10	3				1	5				1		1		1	1	1	1	6									
	11	1					7		3		1		9	1	9	1	6	7	1		4						1	
	532	48	6	6	30	288	32	28	6	50	8	29	32	197	6	136	195	9	9	48	29	8	9	12	26			
	14	4				5	1		2		1	1	1	2		1	6	1										
	10	2			1	4		1	1	1	1	1	1	3		2	1	1										
	14						1																					
	13	3				1	7		1		1			5	8	1	4	7	1		1	1	1				1	
	2	1				1											2					1	1					
	3	1				1	1				1				3		2	1									1	
	125	9			3	9	54	13	9	11	7	9	17	25	2	14	34	3			4	4	1	3	1	7		
	1719	112	24	39	208	974	114	108	15	171	50	95	83	398	7	246	364	15	18	53	66	11	21	13	34			
	498	106	2	9	30	206	31	27	11	37	15	21	46	248	11	144	287	10	6	46	53	14	9	15	31			
	131	9	1	1	17	70	6	4	1	10	4	9	11	23		14	83	4	1	17	1	3	1	10				
	9				1	6											3	4	1									
	70	7			3	4	35	7	3		4	2	4	10	53	1	89	22	1		1	4		1	1	1		
	1						1				1																	
	9	1					3		1		1	1	2				2											
	5						1																					
	1						1																					

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS PLACES WHICH FOLLOW): 1946—Continued

	Essex County	Belleville	Bloomfield	East Orange	Irrington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Norcy	Orange	South Orange	West Orange	Gloucester County
150. Other and unspecified conditions of child-birth and the puerperium									2					2
151. Carbuncle and furuncle	3													
152. Pilegmon and acute abscess	4								1					
153. Other diseases of the skin and cellular tissue	2			2					2		1			1
154. Osteomyelitis and perostitis	2								2				1	1
155. Other diseases of the bones (except tuberculosis)	3	1	1						2					1
156. Diseases of the joints and other organs of movement	3								1		1			
157. Congenital malformations (stillbirths not included)	92	1	2	6	10	2		8	48	4	3	1	3	15
158. Congenital debility (cause not stated)	5								3		11		7	19
159. Premature birth (cause not stated)	233	8	10	17	4	2		6	180	2	3	1	1	4
160. Injury at birth	44	2	4	2	2	2		6	18	2	3	1	1	4
161. Other diseases peculiar to the first year of life	60	22	1	4	2	2	1	2	30	4	1			1
162. Senility	19	4	2	2	5	3	1	3	4	2	1			4
163. Suicide by poisoning	54	1	3	5	5	5	3	6	25	2	1	4	1	5
164. Suicide by other means	1								1					
165. Infanticide (homicide of infants under 1 year of age)	6	1							1				1	2
166. Homicide by firearms	18								16	1	1			
167. Homicide by cutting or piercing instruments	9								1					1
168. Homicide by other means	4								3					
169. Railway accidents (except collisions with motor vehicles)	4	1							3					1
170. Motor vehicle accidents	112	5	6	2	2	2		3	77	2	3	3	3	23
171. Street car and other road transport accidents	2								2					
172. Water transport accidents	2			1										
173. Air transport accidents														3
174. Accidents in mines and quarries														
175. Agricultural and forestry accidents	4								4					
176. Other accidents involving machinery	4								1					1
177. Food poisoning	22					1		1	18		1		1	2
178. Accidental absorption of poisonous gas	7		1						1					1
179. Acute accidental poisoning by solids or liquids	13							1	12					4
180. Conflagration	12			1					8		1			1
181. Accidental burns (except conflagration)	8	1							7					1
182. Accidental mechanical asphyxiation	18			1					13	1	1			5
183. Accidental drowning	3								1					1
184. Accidental injury by firearms	3			1					1	1				
185. Accidental injury by cutting or piercing instruments	206	4	9	17	6	3	1	16	124	2	10	1	8	13
186-1. Accidental injury by fall	2								2					1
186-2. Accidental injury by crushing														
187. Cataclysm														
188. Injury by animals														
189. Hunger or thirst														
190. Excessive cold	1													1
191. Excessive heat														
192. Lightning														
193. Accidents due to electric currents (except lightning)	1								1					
194. Poisoning by venomous animals														
195. Other accidents	17	1	1	2	2				9					4
196. Deaths of military personnel during operations of war														
197. Deaths of civilians due to operations of war														
198. Legal executions														
199. Sudden death														
200. Ill-defined and unknown causes	9	2							7					
Totals	9290	246	437	883	535	213	95	485	4983	217	883	163	267	817

	Woodbury	Androm County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	West New York	Hunterdon County	Mercer County	Princeton	Trenton	Middlesex County	Carters	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.	
150. Other and unspecified conditions of child-birth and the puerperium																										
151. Carbuncle and furuncle	1																									
152. Pilegmon and acute abscess																										
153. Other diseases of the skin and cellular tissue		2				1	1																			
154. Osteomyelitis and perostitis																										
155. Other diseases of the bones (except tuberculosis)																										
156. Diseases of the joints and other organs of movement		2	1																							
157. Congenital malformations (stillbirths not included)	3	70	9			6	26	4	6	2	10	1	6	4	45	2	25	23	2	1	3	3	1	3	1	
158. Congenital debility (cause not stated)		188	23	3	5	21	90	12	10	4	12	1	17	5	53	1	37	43	1	4	7	5	4	1	2	
159. Premature birth (cause not stated)	4	37	9	1		2	15	3	8	4	2	1	2	3	8	1	4	10							10	
160. Injury at birth		48	8			9	22	2	2	2	3			1	1	1	13	18		1	2	3	3	1	1	
161. Other diseases peculiar to the first year of life	1	10	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
162. Senility	1	21	2	1		8	14	2	2	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
163. Suicide by poisoning	1	5					2				6	1														
164. Suicide by other means																										
165. Infanticide (homicide of infants under 1 year of age)																										
166. Homicide by firearms		5					2																			
167. Homicide by cutting or piercing instruments		5					4																			
168. Homicide by other means		1																								
169. Railway accidents (except collisions with motor vehicles)		7					1	1	1																	
170. Motor vehicle accidents	2	80	15	1		2	26	7	11	1	4	1	2	12	47	1	28	3	1		9	3		2	1	
171. Street car and other road transport accidents		1					1																			
172. Water transport accidents																										
173. Air transport accidents																										
174. Accidents in mines and quarries																										
175. Agricultural and forestry accidents																										
176. Other accidents involving machinery																										
177. Food poisoning		12					7		2		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
178. Accidental absorption of poisonous gas		6					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
179. Acute accidental poisoning by solids or liquids		13					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
180. Conflagration		1					2		3	13	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
181. Accidental burns (except conflagration)		8					1		3	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
182. Accidental mechanical asphyxiation		31					2		8	22	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
183. Accidental drowning																										
184. Accidental injury by firearms																										
185. Accidental injury by cutting or piercing instruments		1					1		1																	
186-1. Accidental injury by fall		181					64		2	1	5	2	6	6	5	10	88	2	23	34	4	8	6	2	1	
186-2. Accidental injury by crushing																										
187. Cataclysm																										
188. Injury by animals																										
189. Hunger or thirst																										
190. Excessive cold																										
191. Excessive heat																										
192. Lightning																										
193. Accidents due to electric currents (except lightning)		5	1				4																			
194. Poisoning by venomous animals																										
195. Other accidents		14	1				2	8		1																
196. Deaths of military personnel during operations of war																										
197. Deaths of civilians due to operations of war																										
198. Legal executions																										
199. Sudden death		5					2	2																		
200. Ill-defined and unknown causes																										
Totals	104	7084	700	74																						

TABULATION OF DEATHS IN BERGEN COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
		Male	Female	Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES	4118	1923	54	53	227	235	11	10	20	70	143	138	190	000	001	1038	523	85				
1	Typhoid and paratyphoid fevers	2	1	1	1																		
2	Plague																						
3	Scarlet fever																						
4	Diphtheria																						
5	Cough																						
6	Tuberculosis of the respiratory system	108	67	28	8	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	All other forms of tuberculosis	11	7	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	Syphilis	16	12	8	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	Indusness	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	Measles	1	1																				
11	Scarlet fever																						
12	Other infectious or parasitic diseases	24	9	10	3	1	2	1	1	1	3	3	3	3	2	0	2	1	1	1	1	1	
13	Cancer and other malignant tumors	714	850	347	3	8	1	3	1	1	2	23	28	47	145	204	201	00	5				
14	Nonmalignant tumors or tumors of unspecified nature	10	8	10	1	1	1	1	1	1	2	1	4	2	4	3	1	1	1	1	1	1	
15	Diabetes mellitus	145	45	90	1	1	1	1	1	1	2	8	2	21	51	44	16	2					
16	Chronic or acute alcoholism	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17	Diabetes mellitus	145	45	90	1	1	1	1	1	1	2	8	2	21	51	44	16	2					
18	Chronic or acute alcoholism	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	Other diseases of the circulatory system	55	25	30	3	4	3	1	1	1	4	2	3	4	10	11	8	5					
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	10	7	7	1	1	2	3	1	1	1	2	2	1	0	2	1	0					
21	Myocardial (infarction) and diseases of the spinal cord	831	127	212	6	6	1	1	1	1	1	6	6	6	6	40	92	108	71	9			
22	Intracranial lesions of vascular origin																						
23	Other diseases of the nervous system and sense organs	26	10	15	1	2	7	1	1	1	2	0	2	4	4	4	4	4	4	4	4	4	
24	Diseases of the heart	1424	780	629	13	11	2	1	1	1	2	0	2	37	61	247	350	424	402	302	311	311	
25	Diseases of the circulatory system	160	74	74	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
26	Bronchitis and bronchopneumonia	95	42	6	6	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
27	Pneumonia and bronchopneumonia	28	12	11	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
28	Other diseases of the respiratory system	93	43	35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
29	Diarrhea and enteritis	11	7	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
30	Dysentery	14	8	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
31	Diseases of the liver and biliary passages	71	48	43	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
32	Other diseases of the digestive system	71	48	43	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
33	Nephritis	203	90	100	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
34	Other diseases of the urinary and genital tracts	38	32	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
35	Psoriasis	1	1																				
36	Other diseases of pregnancy, childbirth, and the puerperium	3																					
37	Diseases of the skin, cellular tissue, bones, and joints	8	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
38	Congenital malformations and debility	197	107	83	3	4	190	106	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
39	Year of life	17	6	11																			
40	Sticide	5	3	1																			
41	Homicide	5	3	1																			
42	Automobile accidents (all motor-driven road vehicles)	62	40	18	4	4	2	2	2	2	5	10	7	5	4	11	7	1	2				
43	Other accidents (including falls, suicide, homicide, and automobile accidents other than motor-driven road vehicles)	140	70	68	1	1	5	8	4	5	2	4	10	4	6	12	18	31	31	6			
44	Causes of death ill-defined, unknown, or unspecified	5	4	1																			

Estimated Population, 425,086.

Total Resident Deaths, 4,118.

Rate per 1,000 Population, 9.8.

TABULATION OF DEATHS IN BURLINGTON COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods										90 and Over	Unknown		
		Male		Female		Male		Female													
		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79			80 to 89	
	ALL CAUSES	1154	500	500	42	43	74	87	8	8	18	35	25	44	147	240	297	177	44		
1	Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	Dysentery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	Influenza of the respiratory system	25	16	8	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	All other acute infectious diseases	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	Syphilis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	Indiense	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
13	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	Typhus fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
15	Other infectious or parasitic diseases	177	70	88	4	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
16	Cancer and other malignant tumors	177	70	88	4	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17	Benign tumors or tumors of unspecified nature	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
18	Chronic rheumatism and gout	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	Diabetes mellitus	38	7	20	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Chronic or acute alcoholism	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
21	All other chronic infectious diseases	15	6	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
22	All other chronic non-infectious diseases of the blood, and chronic pulmonary diseases	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
23	Meningitis (nonmeningococcal) and diseases of the spinal cord	108	44	63	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24	Intracranial lesions of vascular origin	6	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
25	Other diseases of the nervous system and sense organs	393	173	206	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
26	Diseases of the heart	43	21	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
27	Other diseases of the circulatory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
28	Emphysema and bronchitis	38	12	13	5	8	10	1	1	1	1	1	1	1	1	1	1	1	1	1	
29	Other diseases of the respiratory system	8	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
30	Diarrhea and enteritis	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
31	Appendicitis	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
32	Other diseases of the ear and biliary passages	18	8	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
33	Other diseases of the digestive system	30	10	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
34	Nephritis	30	40	34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
35	Other diseases of the urinary and genital systems	10	7	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
36	Other diseases of pregnancy, childbirth, and the puerperium	6	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
38	Concussion, laceration, and laceration, premature birth, and diseases peculiar to the first year of life	63	23	19	5	1	50	52	1	1	1	1	1	1	1	1	1	1	1	1	
39	Senility, old age	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
40	Stroke	9	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
41	Homicide	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
42	Automobile accidents (all motor-driven and vehicles)	24	20	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	33	17	12	3	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	
44	Causes of death undetermined, unknown, or unspecified	8	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Estimated Population, 89,920.

Total Resident Deaths, 1,164.

Rate per 1,000 Population, 12.8.

TABULATION OF DEATHS IN CAPE MAY COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
																							228
1	ALL CAUSES	474																					
1	Typhoid and paratyphoid fevers																						
2	Dysentery																						
3	Shigellosis																						
4	Whooping cough																						
5	Diphtheria																						
6	Tuberculosis of the respiratory system	10	2	2	1																		
7	All other forms of tuberculosis	1																					
8	All other forms of tuberculosis	1																					
9	Syphilis	2	1	1																			
10	Influenza																						
11	Smallpox																						
12	Typhus																						
13	Scarlet fever																						
14	Other infectious or parasitic diseases	3	2	1	1																		
15	Cancer and other malignant tumors	34	36	3	8																		
16	Nonmalignant tumors or tumors of unspecified character	4	2	1	1																		
17	Chronic rheumatism and gout																						
18	Diabetes mellitus	14	11	1	1																		
19	Chronic or acute alcoholism	4	1	2	1																		
20	Other diseases of the circulatory system	4	2	1	1																		
21	Other diseases of the blood and chronic poisonings	4	2	1	1																		
22	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1																				
23	Intracranial lesions of vascular origin	44	16	20	5																		

23	Other diseases of the nervous system and sense organs	8	2	1	1																		
24	Diseases of the heart	168	86	76	2																		
25	Diseases of the circulatory system	10	5	4	1																		
26	Bronchitis and bronchopneumonia	11	6	5	2																		
27	Pneumonia and bronchopneumonia	2	1	1	2																		
28	Other diseases of the respiratory system	4	2	1	1																		
29	Diphtheria and enteritis	4	2	1	1																		
30	Diphtheria	4	2	1	1																		
31	Diseases of the liver and biliary passages	18	7	8	1																		
32	Other diseases of the digestive system	10	10	6	1																		
33	Nephritis	2	1	1																			
34	Other diseases of the urinary and genital systems																						
35	Psoriasis																						
36	Other diseases of pregnancy, childbirth, and the puerperium																						
37	Diseases of the skin, cellular tissue, bones, and cartilages	2	1	1																			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	18	4	4	1																		
39	Senility, old age	4	2	2																			
40	Suicide	11	1	1																			
41	Homicide	1	1																				
42	Automobile accidents (all motor-driven road vehicles)	5	1	2																			
43	Other causes of accidents (including falls, burns, scalds, drownings, and deaths from the causes of homicide, and automobile accidents excepted)	24	10	12	2																		
44	Causes of death ill-defined, unknown, or unspecified																						

Estimated Population, 28,975.

Total Resident Deaths, 474.

Rate per 1,000 Population, 16.9.

TABULATION OF DEATHS IN CUMBERLAND COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods											90 and Over	Unknown		
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69			70 to 79	80 to 89
1	ALL CAUSES	913	485	300	48	40	71	77	1	4	17	34	24	83	127	171	235	103	22			
2	Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
3	Plague	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4	Scarlet fever	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
6	Tuberculosis of the respiratory system	18	6	5	3	2	6	2	3	2	6	2	2	3	2	3	2	2	2	2		
7	All other forms of tuberculosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
8	Scrub typhus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
9	Shigellosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
10	Infusariosis	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
11	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
12	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
13	Opportunistic or parasitic diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
14	Other infectious diseases	120	60	52	7	7	1	1	1	1	2	4	2	9	29	28	35	10	1			
15	Cancer and other malignant tumors	7	1	4	2	2	1	1	1	1	1	1	1	2	4	4	1	1	1	1		
16	Nonmalignant tumors or tumors of unspecified nature	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
17	Chronic rheumatism and gout	18	5	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
18	Chronic or acute alcoholism	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
19	Chronic or acute alcoholism	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20		
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	6	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
21	Meningitis (nonmeningococcal) and diseases of meninges	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
22	Intracranial lesions of vascular origin	120	60	60	3	3	1	1	1	1	1	1	1	2	3	6	27	40	41	6		
23	Other diseases of the nervous system and sense organs	6	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
24	Diseases of the heart	304	168	115	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
25	Coronary atherosclerosis	28	17	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
26	Weakness of the circulatory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
27	Bronchitis and bronchopneumonia	32	13	10	3	4	9	12	1	1	1	1	1	1	1	1	1	1	1	1		
28	Other diseases of the respiratory system	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
29	Diarrhea and enteritis	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
30	Dispendic of the liver and biliary passages	8	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
31	Other diseases of the digestive system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
32	Nephritis	60	26	26	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
33	Other diseases of the urinary and genital systems	6	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
34	Puerperal infection	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
35	Other diseases of pregnancy, childbirth and the puerperium	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
36	Diseases of the skin, cellular tissue, bones, and joints	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
37	Other diseases of the skin, cellular tissue, bones, and joints	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	53	30	10	8	1	53	53	1	1	1	1	1	1	1	1	1	1	1	1		
39	Senility, old age	6	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
40	Suicide	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
41	Homicide	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
42	Automobile accidents (all motor-driven road vehicles)	16	13	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
43	Other accidents (all accidents, including homicides, and automobile accidents excepted)	83	15	12	5	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1		
44	Causes of death ill-defined, unknown, or unspecified	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		

Estimated Population, 78,370.

Total Resident Deaths, 813.

Rate per 1,000 Population, 12.4.

TABULATION OF DEATHS IN ESSEX COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods												90 and Over	Unknown		
		White		Male	Female	Male	Female	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69			70 to 79	80 to 89
		Male	Female																		
1	ALL CAUSES	9206	4413	3892	514	487	518	597	49	34	73	298	436	335	524	1502	2186	2011	1127	140	
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	All other forms of the respiratory system	368	185	168	85	159	1	2	8	2	16	50	53	58	87	70	40	0	0	8	
8	Malaria	39	10	11	8	10	2	7	8	2	4	4	11	1	1	4	1	1	1	1	
9	Syphilis	64	35	10	10	9	1	1	1	1	4	2	7	11	22	9	4	8	3	3	
10	Skinneous	13	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Measles	3	2	1	1	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Other infectious or parasitic diseases	60	34	18	5	2	1	8	2	2	10	9	3	18	8	8	6	5	1	7	
14	Cancer and other malignant tumors of specified nature	1000	619	420	39	62	1	1	0	2	13	54	64	163	361	410	368	121	7	.....
15	Cancer and other malignant tumors of unspecified nature	56	18	34	4	2	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Chronic rheumatism and gout	299	77	202	4	7	4	2	2	1	2	5	4	10	15	4	10	15	4	1	
17	Diabetes mellitus	12	7	9	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Arteriosclerosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Arteriovenous, other general diseases, diseases of the blood, and chronic poisonings	118	51	56	4	6	4	18	4	2	7	2	10	5	7	19	10	17	11	.....
20	Mononucleosis (nonhemorrhagic) and diseases of the spinal cord	30	12	15	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Intracranial lesions of vascular origin	722	317	333	35	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intracranial lesions of vascular origin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Other diseases of the nervous system and sense organs	65	34	20	5	6	2	6	4	2	3	9	3	5	8	10	5	8	2	.....
24	Diseases of the heart	8349	1704	1878	116	161	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Other diseases of the circulatory system	217	90	110	10	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Pneumonia and bronchopneumonia	200	107	107	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Other diseases of the respiratory system	600	35	20	2	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Diarrhea and enteritis	21	11	6	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Appendicitis	37	21	12	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Other diseases of the digestive system	154	4	11	6	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Other diseases of the genitourinary system	139	94	41	6	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Nephritis	512	220	233	33	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the urinary and genital systems	90	47	28	5	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Prepuce, urethra, penis, testis, epididymis, and vas deferens	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of the female genital system	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of the female genital system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and cartilages	15	5	7	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Conjunctivitis and diseases peculiar to the first year of life	498	222	140	42	32	427	432	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Scalds, burns, and other injuries	20	6	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Senility, old age	103	61	34	15	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Alcoholism	34	7	5	10	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	112	73	23	14	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	327	183	137	29	11	14	23	3	5	4	10	20	12	14	42	87	69	60	6	
44	Death ill-defined, unknown, or unsuspected	9	7	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 824,846.

Total Resident Deaths, 9,236.

Rate per 1,000 Population, 11.3.

TABULATION OF DEATHS IN EAST ORANGE CITY FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Cause of Death Last Number	All Deaths	White		Colored		Age Periods																						
		Male		Female		Male		Female		Under 1 year		Under 5 years		5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
ALL CAUSES																												
1	Typhoid and paratyphoid fevers	833	376	421	83	58	83	39	1	1	5	11	25	20	26	124	213	224	169	15								
2	Plague																											
3	Scarlet fever																											
4	Whooping cough																											
5	Diphtheria																											
6	Trachoma of the conjunctiva																											
7	All other forms of tuberculosis	20	11	4	6	6	2	5	2	1	0	6	1	1	0	6	1	1	1	1								
8	Malaria																											
9	Syphilis	5	4	1	1	1																						
10	Sinusitis	5	2	1	1	1																						
11	Measles																											
12	Typhus fever																											
13	Other infectious or parasitic diseases	2	0	2	0	0	1	1	1	1	1	0	4	0	0	30	30	41	18	1								
14	Other infectious or parasitic diseases of the respiratory system	147	64	70	4	9																						
15	Other infectious or parasitic diseases of the blood, and chronic poisonings	8	2	0	1	1	1	1	1	1	1	1	1	1	1	2	2	8	1									
16	Nonspecific tumors or tumors of unspecified nature	18	1	1	1	1																						
17	Chronic rheumatism and gout	31	8	22	1	1																						
18	Diabetes mellitus																											
19	Alcoholism																											
20	Avian influenza and influenza																											
21	Menstritis (nonmeningeal) and diseases of the spinal cord	9	5	4	1	1																						
22	Intracranial lesions of vascular origin	57	35	47	1	4																						
23	Other diseases of the nervous system and sense organs	5	9	1	1	1																						
24	Diseases of the heart	347	152	161	10	24																						
25	Other diseases of the circulatory system	16	6	10	1	1																						
26	Pneumonia and bronchopneumonia	4	1	2	1	1																						
27	Pneumonia and bronchopneumonia	27	11	16	1	1																						
28	Other diseases of the respiratory system	7	2	1	1	2																						
29	Diarrhea and enteritis	147	7	1	1	1																						
30	Diseases of the liver and biliary passages	3	1	2	1	1																						
31	Diseases of the gallbladder and pancreas	10	7	4	1	1																						
32	Other diseases of the digestive system	16	11	4	1	1																						
33	Nephritis	40	10	23	1	3																						
34	Other diseases of the urinary and genital systems	9	8	1	1	1																						
35	Puerperal infection																											
36	Other diseases of pregnancy, childbirth, and the puerperium																											
37	Diseases of the skin, cellular tissue, bones, and joints	3		2	1	1																						
38	Other diseases of the skin, cellular tissue, bones, and joints																											
39	Congenital malformations and debility preceding birth, and diseases peculiar to the first year of life	33	18	10	4	1	32	33																				
40	Senility, old age	1	1	1	1	1																						
41	Senility, old age	7	4	2	1	1																						
42	Homicide																											
43	Automobile accidents (all motor-driven road vehicles)	2	1	1	1	1																						
44	Other accidents (including deaths by suicide, homicide, and unexplained deaths)	22	7	13	2	2																						
45	Causes of death ill-defined, unknown, or unspecified																											

1940 Census Population, 68,945.

Total Resident Deaths, 882.

Rate per 1,000 Population, 12.8.

TABULATION OF DEATHS IN GLOUCESTER COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods										90 and Over				
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59		60 to 69	70 to 79	80 to 89	Unknown
1	ALL CAUSES	817	310	42	46	52	60	8	6	7	22	28	20	43	114	109	100	118	28			
2	Typhoid and paratyphoid fevers																					
3	Plague																					
4	Bacterial fever																					
5	Whooping cough																					
6	Diphtheria	1	1	1	1	1	1															
7	Tuberculosis of the respiratory system	18	7	3	4	4	4	5	1	1	5	2	3									
8	All other forms of tuberculosis	1	1	1	1	1	1															
9	Scarlet fever	1	1	1	1	1	1															
10	Syphilis	2	1	1	1	1	1															
11	Indianna	3	1	1	1	1	1															
12	Smallpox																					
13	Meningitis																					
14	Measles																					
15	Other infectious or parasitic diseases	115	57	1	6	1	6	1	1	1	12	23	3	43	27	27	34	14				
16	Cancer and other malignant tumors	2	2																			
17	nature	2	2																			
18	Other neoplasms	27	10	1	1	1	1	1	1	1	6	12	3									
19	Diabetes mellitus																					
20	Chronic or acute alcoholism																					
21	Arteriosclerosis, other general diseases, diseases	0	0	3	1	2	1															
22	Monitory (coma) and chronic poisoning	1	1	1	1	1	1															
23	Meningitis (non-meningoencephalitis)	81	34	42	3	1	2	1	1	1	1	1	1	1	1	6	0	24	16	2		
24	Intracranial lesions of vascular origin																					

23	Other diseases of the nervous system and sense organs	4	2	2	15	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	260	133	98	6	0	1				3	2	9	0	8	35	68	73	46	7	
25	Other diseases of the circulatory system	13	6	0	1																
26	Bronchitis and pneumonia	23	12	0	1	3	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
27	Other diseases of the respiratory system	4	3	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
28	Diarrhea and enteritis	2	2	1	1	2	2														
29	Appendicitis	2	1	1	1	1	1														
30	Septicemia	14	10	4	1	1	1														
31	Other diseases of the digestive system	84	31	37	3	10	1	1	2	1	1	2	1	1	14	18	25	20	3		
32	Nephritis																				
33	Other diseases of the urinary and genital system	8	5	1	2	1	1														
34	Systemic infection																				
35	Other diseases of pregnancy, childbirth, and the puerperium																				
36	Diseases of the skin, cellular tissue, bones, and joints	4	2	1	1	1	1														
37	Congenital malformations and disability, premature birth, and diseases peculiar to the first year of life	50	23	13	3	39	39														
38	Other congenital malformations and disability, premature birth, and diseases peculiar to the first year of life	4	3	2	1	1	1														
39	Senility, old age	3	2	1	1	1	1														
40	Year of life	5	0	2	1	1	1														
41	Homeicide	3	2	1	1	1	1														
42	Automobile accidents (all motor-driven road vehicles)	23	19	8	1	1	1	1	2	1	0	3	3	4	3	4	3	4	3		
43	Other violent or accidental deaths (vehicle, other means of death III-defined, unknown, or unspecified)	38	22	11	5	1	5	4	4	4	3	1	2	3	2	6	5	2			
44	Causes of death III-defined, unknown, or unspecified																				

Estimated Population, 74,793.

Total Resident Deaths, 817.

Rate per 1,000 Population, 10.9.

TABULATION OF DEATHS IN HUDSON COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods																	
		White		Colored		Under 1 Year		Under 5 years		5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	ALL CAUSES	7054	3834	2980	123	127	424	490	29	37	41	142	320	278	396	1387	1707	1407	640	84	84		
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Tuberculosis of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Infants	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Infants	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other febrile parasitic diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other neoplasms	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Nonmalignant tumors or tumors of unspecified nature	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chorea or acute alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Avitaminoses, other general diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Of the blood, and chronic poisonings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Septicemia (meningococcal) and diseases of the brain	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Intracranial lesions of vascular origin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Other diseases of the nervous system and sense organs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diseases of the heart	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Other diseases of the circulatory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Bronchitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Pneumonia and bronchopneumonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Other diseases of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Diarrhea and enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Appendicitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Diseases of the liver and biliary passages	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the digestive system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Fuerepal infection	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and cartilages	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, prematurity, and diseases peculiar to the first year of life	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Accidents (all motor-driven road vehicles)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Causes of death ill-defined, unknown, or unspecified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 597,002.

Total Resident Death, 7,034.

Rate per 1,000 Population, 11.8.

24	Other diseases of the nervous system and sense organs	46	24	24	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
25	Diseases of the heart	2933	1420	1176	35	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
26	Other diseases of the circulatory system	106	53	49	2	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
27	Bronchitis	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Pneumonia and bronchopneumonia	289	133	88	6	9	42	66	8	1	3	5	7	11	11	36	84	27	32	4	4	4	4
29	Other diseases of the respiratory system	22	9	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Diarrhea and enteritis	22	9	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Appendicitis	33	23	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Diseases of the liver and biliary passages	148	76	71	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33	Other diseases of the digestive system	126	78	48	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	286	135	149	4	8	1	3	1	3	1	8	11	10	18	41	71	75	43	5	5	5	5
35	Fuerepal infection	87	43	44	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Other diseases of pregnancy, childbirth, and the puerperium	6	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and cartilages	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, prematurity, and diseases peculiar to the first year of life	7	1	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	385	215	115	16	9	843	931	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	10	2	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	72	50	14	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Accidents (all motor-driven road vehicles)	11	4	3	4	1	.....	.....	.....											

TABULATION OF DEATHS IN HOBOKEN FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1	Typhoid and paratyphoid fevers	648	401	230	1	2	48	54	4	4	6	9	24	17	30	131	147	153	184	4	4	.....
2	Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Cholera of the respiratory system	27	21	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	All other forms of tuberculosis	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	8	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Swamp fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	85	49	35	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Benign neoplasms or tumors of unspecified nature	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus	24	9	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Alcoholism	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	AVIATION accidents, diseases, diseases of the blood, and chronic poisonings	10	6	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intracranial lesions of vascular origin	30	18	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23	Other diseases of the nervous system and sense organs	8	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Disease of the heart	264	164	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Other diseases of the circulatory system	7	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Bronchitis	2	18	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	25	6	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Influenza and influenza-like diseases	6	5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Diarrhea and enteritis	6	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis	5	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Disease of the liver and biliary passages	13	4	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other diseases of the digestive system	14	10	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the genitourinary system	11	7	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	7	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Puerperal infection	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and puerperium	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Disease of the skin, cellular tissue, bones, and organs of movement	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	88	54	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility and senescence	8	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	28	23	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Causes of death ill-defined, unknown, or unspecified	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1940 Census Population, 50,115.

Total Resident Deaths, 643.

Rate per 1,000 Population, 12.8.

TABULATION OF DEATHS IN JERSEY CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
1	ALL CAUSES	2418	1430	114	115	192	226	18	19	20	21	178	146	109	632	865	698	284	48				
2	Typhoid and paratyphoid fevers	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Meningitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Tuberculosis of the respiratory system	108	49	18	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	All other forms of tuberculosis	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Malaria	18	10	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Infantile paralysis	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Cyprus fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Other viral exanthematic diseases	13	7	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Cases and other malignant neoplasms	548	291	11	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Nonmalignant tumors or tumors of unspecified nature	14	6	8	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Chronic rheumatism and gout	8	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Diabetic mellitus	91	18	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Chronic or acute alcoholism	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	81	9	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Meningitis (nonmeningococcal) and diseases of the brain	12	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Intracranial lesions of vascular origin	288	121	151	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	Other diseases of the nervous system and sense organs	19	9	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	1305	693	340	83	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Diseases of the circulatory system	92	28	25	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Bronchitis and bronchopneumonia	110	64	35	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	14	8	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	11	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Diarrhea and enteritis	11	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Dysentery	7	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	74	30	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the digestive system	54	20	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Nephritis	141	68	78	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	26	15	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Puerperal infection	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Other diseases of pregnancy, childbirth, and the puerperium	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of muscular tissue, bones, and joints	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Organs of movement, bones, and joints	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	154	86	44	15	9	150	164	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Senility, old age	82	21	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Suicide	6	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Homicide	6	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Automobile accidents (all motor-driven road vehicles)	26	20	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Other accidents or incidents, falls, suicides, homicides, and automobile accidents excluded	142	91	39	0	8	8	3	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Causes of death ill-defined, unknown, or unspecified	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1946 Census Population, 801,172.

Total Resident Deaths, 8,418.

Rate per 1,000 Population, 11.8.

TABULATION OF DEATHS IN UNION CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods																		
			Male		Female		Male		Female		Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES	624	335	288	1	29	31	1	5	5	5	5	21	28	32	110	164	138	76	9					
1	Typhoid and paratyphoid fevers	1																							
2	Plague																								
3	Scarlet fever																								
4	Dysentery																								
5	Diphtheria	1																							
6	Tuberculosis of the respiratory system	26	17	9																					
7	All other forms of tuberculosis	1																							
8	Smallpox																								
9	Syphilis																								
10	Infusaria	1																							
11	Smallpox	1																							
12	Measles																								
13	Scarlet fever																								
14	Other infectious or toxic diseases	129	68	60																					
15	Cancer and other malignant tumors	129	68	60																					
16	Nonmalignant tumors or tumors of unspecified nature	1																							
17	Chorea	1																							
18	Chorea, infantum and gout																								
19	Diabetes mellitus and gout	2																							
20	Chronic or acute alcoholism	1																							
21	AVitaminoses, other general diseases, diseases of the blood, and chronic poisoning	7	2	5																					
22	All other diseases (meningococcal) and diseases of the spinal cord (meningococcal) and diseases of intracranial lesions of vascular origin	60	25	25																					

23	Other diseases of the nervous system and sense organs	5	2	3																					
24	Diseases of the heart	229	131	97																					
25	Diseases of the circulatory system	1																							
26	Buberculosis	1																							
27	Pneumonia and bronchopneumonia	13	8	15																					
28	Other diseases of the respiratory system	5	4	1																					
29	Diarrhea and enteritis	2		2																					
30	Diseases of the liver and biliary passages	14	5	9																					
31	Diseases of the digestive system	8	3	5																					
32	Other diseases of the digestive system	24	12	12																					
33	Nephritis	6	8	8																					
34	Other diseases of the urinary and genital systems	1		1																					
35	Presenile infection	1		1																					
36	Other diseases of pregnancy, childbirth, and the puerperium	1		1																					
37	Diseases of the ear, nose, and throat																								
38	Other diseases of the eye, ear, nose, and throat																								
39	Congenital malformations and diseases peculiar to the fetus																								
40	Birth, and diseases peculiar to the fetus																								
41	Birth, and diseases peculiar to the fetus	27	10	8																					
42	Automobile accidents (all motor-driven road vehicles)	10	8	2																					
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	4	8	1																					
44	Causes of death ill-defined, unknown, or unspecified	1	1	1																					

1940 Census Population, 56,178.

Total Resident Deaths, 624.

Rate per 1,000 Population, 11.1.

TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Cohort		Age Periods										80 and Over	Unknown							
		White		Colored		Male		Female		Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29			30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89
		Male	Female	Male	Female	Male	Female	Male	Female															
1	ALL CAUSES	416	216	180	7	5	20	25	3	3	2	10	11	12	17	62	60	118	76	22				
2	Typhoid and paratyphoid fevers	1	1	1																				
3	Dysentery	1	1	1																				
4	Whooping cough	1	1	1																				
5	Diphtheria	1	1	1																				
6	Tuberculosis of the respiratory system	9	6	3			1	2																
7	All other forms of tuberculosis	1	1	1																				
8	Scabies	1	1	1																				
9	Syphilis	1	1	1																				
10	Infusina	1	1	1																				
11	Smallpox	1	1	1																				
12	Scarlet fever	1	1	1																				
13	Measles	1	1	1																				
14	Other infectious or parasitic diseases	61	20	85								2	3	8	12	11	19	10	1					
15	Cancer and other malignant tumors	1	1	1																				
16	Nonmalignant tumors or tumors of unspecified	4	1	3																				
17	Chronic rheumatism and gout	1	1	1																				
18	Diabetes mellitus	4	1	3																				
19	Chronic or acute alcoholism	7	3	4																				
20	Accidents or other general injuries, diseases of the blood, and diseases of the spinal cord	7	3	4																				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1	1																				
22	Intracranial lesions of vascular origin	32	14	17																				
23	Other diseases of the nervous system and sense organs	7	6	6																				
24	Disease of the heart	157	93	63																				
25	Other diseases of the circulatory system	10	2	8																				
26	Myocarditis	12	0	5																				
27	Pneumonia and bronchopneumonia	8	3	1																				
28	Other diseases of the respiratory system	1	1	1																				
29	Diarrhea and enteritis	4	2	2																				
30	Dependence of the liver and biliary passages	9	16	4																				
31	Dependence of the digestive system	25	10	13																				
32	Nephritis	2	1	1																				
33	Other diseases of the urinary and genital systems	1	1	1																				
34	Other diseases of the urinary and genital systems	1	1	1																				
35	Systemic infection	1	1	1																				
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1	1																				
37	Diseases of the skin, cellular tissue, bones, and joints	18	3	9																				
38	Other diseases of the skin, cellular tissue, bones, and joints	1	1	1																				
39	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	16	5	6																				
40	Senility, old age	7	4	8																				
41	Homeicide	2	1	1																				
42	Automobile accidents (all motor-driven road vehicles)	12	9	8																				
43	Other collisions or accidents (air, outside of vehicles)	22	12	8																				
44	Causes of death ill-defined, unknown, or unspecified	1	1	1																				

Estimated Population, 84,245.

Total Resident Deaths, 416.

Rate per 1,000 Population, 12.1.

TABULATION OF DEATHS IN MONMOUTH COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods											90 and Over	80 to 89	70 to 79	60 to 69	50 to 59	45 to 49	40 to 44	30 to 39	20 to 29	15 to 19	10 to 14	5 to 9	Under 5 years	Under 1 year	Female	Male	Female	Male	22006	
		Male	Female	Male	Female	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89																				90 and Over
		1125	920	123	122	117	138	12	7	10	51	81	50	95	356	500	506	506																				841	44
1	ALL CAUSES	1125	920	123	122	117	138	12	7	10	51	81	50	95	356	500	506	506	841	44	Unknown																	
2	Typhoid and paratyphoid fevers																																					
3	Dysentery																																					
4	Whooping cough																																					
5	Diphtheria																																					
6	Tuberculosis of the respiratory system																																					
7	All other forms of tuberculosis																																					
8	Styphilia																																					
9	Influenza																																					
10	Scarlet fever																																					
11	Dysentery																																					
12	Whooping cough																																					
13	Diphtheria																																					
14	Tuberculosis of the respiratory system																																					
15	All other forms of tuberculosis																																					
16	Cancer and other malignant tumors																																					
17	Nonmalignant tumors or tumors of unspecified character																																					
18	Chronic rheumatism and gout																																					
19	Diabetes mellitus																																					
20	Chronic or acute alcoholism																																					
21	Arteriosclerosis, other general atherosclerotic diseases, and other diseases of the arteries																																					
22	Meningitis (nonmeningococcal) and diseases of the spinal cord																																					
23	Intracranial lesions of vascular origin																																					

23	Other diseases of the nervous system and sense organs	18	10	7	1	1	2	1	1	1	3	2	1	2	1	2	2	2	2	2	2
24	Diseases of the heart	34	10	24	1	1	1	1	1	1	3	6	10	16	32	167	209	241	162	11	11
25	Other diseases of the circulatory system	45	27	23	9	1	1	1	1	1	1	1	1	1	2	8	15	20	8	8	8
26	Bronchitis	73	30	26	6	2	14	17	1	4	1	4	1	1	11	10	13	8	3	3	3
27	Pneumonia and bronchopneumonia	24	9	11	1	1	3	4	2	1	1	1	1	1	1	1	1	1	1	1	1
28	Tuberculosis of the respiratory system	80	37	16	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Diphtheria and enteritis	84	17	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Appendicitis	87	15	15	4	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	132	64	53	4	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Nephritis	23	10	6	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Other diseases of the urinary and genital systems	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Uterine infection	6	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Other diseases of pregnancy, childbirth, and the puerperium	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Diseases of the skin, cellular tissue, bones, and organs of movement	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Congenital malformations and debility, premature of life, and diseases peculiar to the first year of life	83	44	32	5	2	80	83	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Suicide	25	10	6	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
39	Accidents (all motor-driven road vehicles)	40	20	11	9	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
40	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	86	44	33	5	4	7	12	1	2	4	6	5	3	12	6	16	15	4	4	4
41	Causes of death ill-defined, unknown, or unspecified	5	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Estimated Population, 172,054.

Total Resident Deaths, 2,298.

Rate per 1,000 Population, 13.3.

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	All Deaths	White		Colored		Age Periods											90 and Over	Unknown		
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69			70 to 79	80 to 89
1	578	307	246	17	8	96	87	8	1	1	13	10	14	21	67	130	168	92	22	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5	14	6	4	1	1	1	1	1	1	1	8	1	2	8	2	8	3	3	3	
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	90	42	44	8	1	4	15	24	25	15	2	1	4	15	24	25	15	2	2	
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
18	21	4	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	6	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
22	58	24	27	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

23	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	107	47	73	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	9	4	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	19	8	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	35	18	14	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	22	8	14	1	1	22	22	1	1	1	1	1	1	1	1	1	1	1	1
39	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	18	16	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	26	15	9	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
44	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 87,068.

Total Resident Deaths, 878.

Rate per 1,000 Population, 15.6.

TABULATION OF DEATHS IN PASSAIC COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods											90 and Over	Unknown
		Male	Female	Male	Female	Male	Female	Age Periods												
								Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69			70 to 79	80 to 89
1	ALL CAUSES	8221	1785	1388	51	62	106	190	13	11	14	170	98	113	168	587	740	782	867	88
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Tuberculosis of the respiratory system	116	6	4	4	6	1	1	1	1	15	20	8	7	27	20	11	4	.....	.....
8	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis	20	10	6	4	2	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Other infectious or parasitic diseases	18	10	6	2	4	1	2	1	1	1	2	3	1	2	2	4	.....	.....	.....
14	Cancer	614	277	200	3	4	1	2	1	1	1	2	11	26	39	120	135	181	44	2
15	Nonmalignant tumors or tumors of unspecified nature	11	3	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Chronic rheumatism and gout	15	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic or acute alcoholism	114	41	70	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	15	7	1	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Other diseases of the liver and biliary passages	44	29	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Other diseases of the digestive system	14	7	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Meningitis (meningococcal) and diseases of the intracranial lesions of vascular origin	280	137	148	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 298,623.

Total Resident Deaths, 8,221.

Rate per 1,000 Population, 11.0.

23	Other disease of the nervous system and sense organs	20	12	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	119	64	48	7	9	1	1	1	1	1	2	1	1	1	1	1	1	1	1
25	Other diseases of the circulatory system	15	8	6	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Bronchitis	87	41	37	7	2	10	11	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	22	11	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Diarrhea and enteritis	6	1	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Appendicitis	59	3	57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Diseases of the liver and biliary passages	81	58	37	1	2	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Other diseases of the digestive system	53	37	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other diseases of the urinary and genital systems	153	76	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the urinary and genital systems	35	29	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Puerperal infection	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of pregnancy, childbirth, and puerperium	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Diseases of the skin, cellular tissue, bones, and joints	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the eye	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and deformities, premature birth, and diseases peculiar to the first year of life	136	72	65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	40	4	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Stroke	49	25	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	46	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (fire, lightning, and automobile accidents excepted)	45	36	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Causes of death ill-defined, unknown, or unspecified	102	54	40	4	4	3	7	2	2	2	5	2	7	2	20	12	18	18	4

TABULATION OF DEATHS IN PATERSON FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
				Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		1030		800	078	41	34	08	84	0	0	0	32	48	53	60	200	351	301	217	20	
1	ALL CAUSES	1030		800	078	41	34	08	84	0	0	32	48	53	60	200	351	301	217	20		
2	Typhoid and paratyphoid fevers																					
3	Plague																					
4	Scarlet fever																					
5	Diphtheria																					
6	Tuberculosis of the respiratory system	62		31	22	4	5	1	1	1	7	10	4	6	10	10	6	2				
7	All other forms of tuberculosis	2		1	1																	
8	Salmonella	15		0	3	4																
9	Shigella	2		1																		
10	Influenza	2		1																		
11	Smallpox																					
12	Measles																					
13	Other infections of parasitic diseases	9		6	3																	
14	Cancer and other malignant tumors	245		110	123	1	1	1	1	1	2	4	6	10	54	63	68	20	2			
15	Cancer and other malignant tumors of unspecified nature	4		1	3																	
16	Cancer of stomach and gut	15		7	8																	
17	Cancer of bladder	60		25	30	1	2	1														
18	Diabetes mellitus	6		3	3																	
19	Chronic or acute alcoholism	2																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisoning	28		16	7	2	2	6			1	1	1	1	1	4	7	3	1			
21	Myocardial (coronary) and diseases of the brain (congenital) and diseases of the spinal cord	7		1	5	1	1	2	3	3	1	1	1	1	1	2	1	2	1			
22	Intracranial lesions of vascular origin	147		64	79	3	1	1	1	1	1	2	1	7	16	41	40	23	4			

23	Other diseases of the nervous system and sense organs of the head	11		6	3																	
24	Diseases of the heart	548		312	221	7	6	1	1	1	2	12	12	22	102	148	105	84	8			
25	Other diseases of the circulatory system	56		22	33	1	2															
26	Bronchitis	6		2	4																	
27	Pneumonia and bronchopneumonia	46		22	19	5	6	6														
28	Diseases of the respiratory system	12		8	3																	
29	Diarrhea and enteritis	4		1	3																	
30	Appendicitis	2		2																		
31	Diseases of the liver and biliary passages	2		1	1																	
32	Other diseases of the digestive system	25		11	11	1	2	3														
33	Nephritis	28		11	11	1	2	3														
34	Other diseases of the urinary and genital systems	68		23	36	1	5	3														
35	Eruptive infection	18		16	2																	
36	Other diseases of pregnancy, childbirth, and puerperium	3		4																		
37	Diseases of the skin, cellular tissue, bones, and cartilage	2			2																	
38	Congenital malformations and debility, prematurity, and diseases peculiar to the first year of life	2			2																	
39	Senility, old age	47		20	13	2	3	46	47													
40	Suicide	3		2	1																	
41	Accidents (all motor-driven road vehicles)	18		8	8	1	1															
42	Other violent or accidental deaths (fire, homicide, and automobile accidents excepted)	24		19	5																	
43	Causes of death ill-defined, unknown, or unspecified	40		18	23	4	4	2	4	1	1	1	1	8	2	8	1	7	0	12	2	
		1		1	1																	

1940 Census Population, 139,050. Total Resident Deaths, 1,539. Rate per 1,000 Population, 11.2.

TABULATION OF DEATHS IN SALEM COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over
1	ALL CAUSES	463	175	44	29	50	57	4	1	7	10	20	12	19	61	81	109	70	12	Unknown	
2	Typhoid and paratyphoid fevers	1	1											1							
3	Plague																				
4	Scarlet fever	1	1																		
5	Whooping cough	1	1																		
6	Diphtheria	1	1																		
7	All other forms of the respiratory system	11	2	4	4	2	2	1	1	2	2	1	2	3	1	1	1	1	1		
8	Malaria	8																			
9	Syphilis	6	5	1	1																
10	Smallpox	6	5	1	1																
11	Measles																				
12	Typhus fever	5	5																		
13	Other infectious or parasitic diseases	60	20	38	5	2	2	1	2	1	2	0	1	2	6	7	14	21	7		
14	Chronic infectious diseases	4	1	3																	
15	Chronic diseases of the circulatory system	6	1	4	1																
16	Chronic diseases of the respiratory system	1	1																		
17	Chronic rheumatism and gout	1	1																		
18	Chronic diseases of the digestive system	1	1																		
19	Chronic diseases of the genitourinary system	1	1																		
20	Avian influenza, other general diseases, diseases of the blood, and chronic poisonings	4	2	2				8	3												
21	Meningitis (nonmeningococcal) and diseases of the meninges	5	2	2																	
22	Infectious lesions of vascular origin	52	22	26	2	2															
23	Other diseases of the nervous system and sense organs	2	1	40	4	10	1	1	2												
24	Diseases of the heart	142	70	49																	
25	Diseases of the circulatory system	13	4	9																	
26	Influenza	18	2	2																	
27	Pneumonia and bronchopneumonitis	28	9	4	1	1	8	1	1	1	1	1	1	1	1	2	3	4	4	6	
28	Other diseases of the respiratory system	4	2	1	1	1	2														
29	Scarlet fever	1	1																		
30	Diphtheria and enteritis	4	1	2	1	1	2														
31	Diseases of the liver and biliary passages	5	2	2																	
32	Other diseases of the digestive system	1	1																		
33	Nephritis	20	11	5	2	1	1														
34	Other diseases of the urinary and genital systems	9	2	2	4	1	1														
35	Puerperal infection	1																			
36	Other diseases of pregnancy, childbirth, and the puerperium	1																			
37	Diseases of the skin, cellular tissue, bones, and joints	1																			
38	Other diseases of pregnancy, childbirth, and the puerperium	1																			
39	Other diseases of pregnancy, childbirth, and the puerperium	1																			
40	Stillborn, still age	36	16	6	3	35	36														
41	Homicide	3	2	1	1	1	1														
42	Automobile accidents (all motor-driven road vehicles)	18	15	1	1	1	1	1	4	3	4	2	1	1	1	1	2	1	2		
43	Accidental deaths (suicide, homicide and unknown cause)	25	15	6	4	4	1	2	1	2	1	2	5	3	8	4					
44	Unspecified																				

Estimated Population, 42,500.

Total Resident Deaths, 463.

Rate per 1,000 Population, 10.9.

TABULATION OF DEATHS IN WARREN COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1	Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Diphtheria cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Tuberculosis of the respiratory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	All other forms of tuberculosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Relapsing fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Syphilis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Infusozoa	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Other fevers of unspecified nature	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Other fevers of specific diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Cancer and other malignant tumors	73	43	30	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Nonmalignant tumors or tumors of unspecified nature	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Cerebrovascular disease and gout	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Diabetes mellitus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Chronic or acute alcoholism	20	6	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	14	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Malnutrition (excluding marasmus) and diseases of the skin (excluding scabies)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Intracranial lesions of vascular origin	61	23	30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

BUREAU OF VITAL STATISTICS

23	Other diseases of the nervous system and sense organs	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	219	124	93	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Other diseases of the circulatory system	20	10	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Bronchitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	21	11	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Bubonic, enteric, and septicemic typhoid	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Appendicitis	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the digestive system	14	10	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Nephritis and other diseases of the urinary system	32	15	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	10	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Septicemia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Congenital malformations and debility, prematurity or ill, and diseases peculiar to the first year of life	10	10	9	10	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Senility, old age	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Suicide	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Accidents (excluding motor-driven road vehicles)	10	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Motor-driven road vehicles accidents (all motor-driven road vehicles)	10	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Other violent or accidental deaths, suicide, homicide, and automobile accidents	21	11	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Causes of death ill-defined, unknown, or unspecified	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 48,587.

Total Resident Deaths, 608.

Rate per 1,000 Population, 12.5.

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