

SEVENTY-FIRST ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1948



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DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY
PUBLIC HEALTH COUNCIL

WHEELER McMILLEN, *Chairman*.....Hopewell
MARCUS W. NEWCOMB, M. D., *Vice-Chairman*.....Browns Mills
MRS. FLORENCE M. FARR, *Secretary*.....Brookside
WALTER G. ALEXANDER, M. D.....Orange
HARVEY N. DAVIS.....Hoboken
FREDERICK P. LEE, M. D.....Paterson
HARRY N. LENDALL, C. E.....New Brunswick

J. LYNN MAHAFFEY, M. D., *Director and Acting Commissioner of Health*
July 1, 1947—May 31, 1948

DANIEL BERGSMA, M. D., M. P. H., *Commissioner of Health*
June 1, 1948—

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., July 1, 1948.

To His Excellency Governor Alfred E. Driscoll:

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

To the Public Health Council:

GENTLEMEN—I have the honor of submitting herewith the Annual Report of the Department of Health for the fiscal year ending June 30, 1948.

Respectfully submitted,

DANIEL BERGSMA, M. D., M. P. H.,
Commissioner of Health.

Report of the Director and Acting Commissioner of Health

July 1, 1947—May 31, 1948

By J. LYNN MAHAFFEY, M. D.

Chapter 177 of the Laws of 1947 became effective on July 1, 1947. The appointment of the Public Health Council by Governor Alfred E. Driscoll marked the first step under this reorganization law which was passed after two years of legislative study and consideration. The Director of Health was named to continue as Director of Health and to serve as Acting Commissioner of Health for a transition period during the reorganization. At the same time, plans were going forward within the State Government for the reorganization of the entire governmental structure under the new Constitution.

The work of the Department continued during this transition period and the highlights of the work accomplished are summarized in this report.

COMMUNICABLE DISEASE RECORDS

There was a slight reduction in the total of reported cases of communicable diseases in the calendar year of 1947; the diseases of childhood accounted for 85% of the 78,639 total reported. Measles was considerably lower than the high incidence of 1946 and diphtheria cases showed a drop as well. There were 296 cases of poliomyelitis reported—a slight increase over the 257 reported in 1946. The number of recorded deaths was, however, ten as compared with 24 in the preceding year. While new low annual case and death records were established in tuberculosis, still 3,161 new cases were recorded and 1,651 people died from tuberculosis in 1947.

Whooping cough claimed the lives of 24 persons—all children below ten years of age—and 19 of these were infants less than one year old. There was a marked reduction in the number of reported cases of malaria and there was one fatal case of rabies in a human.

Biologicals were distributed during the year through the distributing stations of the Department and were used widely by physicians and local health departments. Reports received showed that during the fiscal year ending June 30, 1948, at least 32,129 children were immunized with diphtheria toxoid

DEPARTMENT OF HEALTH

distributed free by the Department, and 35,416 received either diphtheria toxoid-whooping cough vaccine combined or whooping cough vaccine alone. Reports also show that at least 36,507 persons were vaccinated against small-pox with materials supplied by the Department. Immune serum globulin as the preventive of measles was distributed and rabies vaccine (human) was provided for complete treatment of 14 doses to 485 persons. Distribution of blood plasma furnished by the American Red Cross furnished from the excess above the needs of the armed forces was continued by the Department. During the year, 12,936 individual packages of plasma were distributed chiefly to hospitals.

There was a decline in the incidence of rabies as compared with the preceding year, but the occurrence of outbreaks among animals and the one human death served to stimulate interest in the problem. There was a growing awareness of the importance of rabies control on the part of the public, health and municipal officials and veterinarians. An Institute on Rabies was conducted by the Department in Trenton which was attended by local health and municipal officials, veterinarians and others concerned with rabies control. It becomes increasingly clear that the challenge of rabies can be met only by a complete dog control program, including vaccination of dogs.

TUBERCULOSIS AND VENEREAL DISEASE CONTROL

Free mass chest X-ray services were provided by the Division of Tuberculosis Control and 162,082 persons in industries, communities, and institutions were X-rayed. Of these, 3,838 showed abnormalities which were referred for follow-up. The chest X-ray survey work is now providing the maximum service with present equipment and personnel. During the year the procedure for follow-up of cases was increased in effectiveness and a referral system was organized on a priority basis so that X-rays showing the most significant findings would be followed up first. There was an increase of community surveys, as well as inclusion of state institutions and colleges in the surveys. The Department has worked with other agencies in the State in fostering X-ray of all admissions to general hospitals.

Penicillin continues to hold the stage in the field of venereal disease control. The history of venereal disease control during the last year has been the history of the development and extended use of penicillin in the treatment of syphilis and gonorrhea. The Department, through the Division of Venereal Disease Control, has continued to offer free hospitalization to patients with syphilis, and a program for the ambulatory treatment of syphilis with penicillin was instituted from the office of private physicians and from clinics. Special clinics were maintained for the examination of agricultural migrant workers and special surveys were conducted in certain communities.

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The Department suffered severe loss in the resignation of Dr. Roscoe P. Kandle as Director of the Bureau of Preventable Diseases when he joined the staff of the American Public Health Association. Evaluation studies of the programs of the units attached to the Bureau of Preventable Diseases were made during the year. A whooping cough control program for New Jersey was developed and a number of professional and popular publications in this field were released by the Bureau of Preventable Diseases.

A series of qualifications for admission to license examinations for health officers and inspectors of various types was adopted by the Public Health Council in accordance with the provisions of Chapter 177, Public Laws of 1947, and regular examinations were held under these regulations during the year.

ADULT AND INDUSTRIAL HEALTH SERVICES

Two general types of services of the Adult and Industrial Health Division were continued: (1) in-plant environmental engineering, and (2) medical and nursing assistance and consultation on plant health problems. The number of industrial services during the fiscal year was nearly double that of the preceding year. The majority of these plants employed fewer than 500 workers, many of them fewer than 100, indicating the greater need of the smaller plants for assistance in their industrial health programs. A spot survey of plants previously visited showed that recommendations of the Department resulting from surveys were being put into effect.

The Industrial Sight Conservation Program, the only one of its type in the nation, was continued and two community-wide industrial surveys were completed.

Organization of the Division of Cancer Control was continued during the past year, which was the second year since this Division was established. The Division has organized a joint pathological program with the New Jersey Society of Clinical Pathologists. This program includes a tumor slide registry, a consulting board of tissue pathologists, a tumor tissue laboratory, cancer reference laboratory, and pathological seminars.

An Advisory Nursing Committee on Cancer has been formally established by the State Nurses Association, State League of Nursing Education, and the State Organization for Public Health Nursing. The New Jersey Dental Society approved a joint program for the provision of fellowships in tumor pathology for New Jersey dentists, and the cancer fellowship at the James S. Green Memorial Tumor Clinic in Elizabeth was continued. Plans have been made for provision of cancer scholarships for nurses.

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DENTAL HEALTH PROGRAM

It was with regret that we announced the resignation of Dr. J. M. Wisan as Chief of the Division of Dental Health to become the Director of the Division of Health Education of the American Dental Association. In his years with the Department, Dr. Wisan has established the outstanding dental health program which we now have. He was succeeded by Dr. Earl G. Ludlam, who had previously been employed as a supervisor in the Division of Dental Health.

New mobile clinics were put into operation in Atlantic, Cape May, Gloucester and Warren counties, and despite a 31% reduction in the amount of funds available, the services provided during the year were increased. During the coming year it is expected that a complete and thorough prophylaxis and a series of four topical applications of 2% sodium fluoride solution will be given to each child presented for treatment. A study has been started to determine the effects of the addition of one part per million sodium fluoride to the drinking water of the town of Morristown, in co-operation with the city and the Tri-County Dental Society. This will be the eighth such study of the effects of fluoride in a public water supply in the United States and it is expected to result in basic information in regard to the addition of sodium fluoride to drinking water supplies.

The Division of Maternal and Child Health completed its thirtieth year in 1947, with continued low maternal and infant death rates. Investigations of all maternal deaths were made by field physicians, including discussions with the attending physician, study of the records, completion of a detailed report and presentation of many of the cases before the county medical society for general discussion.

The Emergency Maternity and Infant Care Program was closed on July 1, 1947. During its effective period, from April, 1943, to June, 1947, 30,597 maternity and 2,996 infant cases were authorized for care.

The work of the Negro Health Program was continued as previously established, with a nursing service in special areas, health education activities, tuberculosis case-finding and special immunization programs.

HEALTH EDUCATION

Health education services, through the Division of Health Education, were expanded during the year, following the plan established when the Division was created in 1945. A three-phase program of health information services, health education material services and community health organization services has been developed. The first two phases, which are now well established, will provide the services and materials which will be needed in the development of the community health organization services.

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With the year 1948, New Jersey completed the first 100 years of continuous central registration of birth, marriage and death records. There are now more than 12,000,000 vital records on file in the Bureau of Vital Statistics, with an addition of 220,000 during 1947. Three laws for the improvement of registration procedures were passed by the last Legislature.

The laboratories of the Department continue to render increasing services to the physicians, local health departments, other governmental agencies and the people of New Jersey despite the mounting difficulty which the handicap of inadequate laboratory quarters has brought upon such work. During the past year, the Bureau of Bacteriology developed a new procedure of tuberculosis culture, conducted basic research on serology problems and performed a greatly increased number of Rh factor determinations.

The Bureau of Chemistry assayed samples of factory-prepared mixtures for preparation of pie crusts, cakes, muffins and biscuits in the home. The work of checking mayonnaise, salad dressings and vegetable oils for fraudulent substitutions was continued, thus providing a protection to the housewives of New Jersey.

ENVIRONMENTAL SANITATION PROGRAM

With the continued rise in the cost of foods, there has been a continued increase in attempts to produce, distribute and sell adulterated or misbranded foods. In a number of cases milk was found which had been adulterated by the addition of water, and some butter samples showed excessive quantities of moisture. A high percentage of samples of hamburger and sausage showed that they contained excessive amounts of fat. The Department, through the agents of the Bureau of Food and Drugs, has worked to bring these under control.

During the year, legislation was passed repealing the prohibition of the sale of colored oleomargarine, and amidon was defined as a narcotic drug.

As a result of a conference between the governors of New York, Connecticut and New Jersey, a conference of milk control officials of Vermont, Connecticut, New York, New Jersey and Pennsylvania was held for the purpose of establishing an interstate commission for the reciprocal acceptance of approvals of dairy farms and milk plants. While the organization of this commission will necessarily take some time, the Department has continued to request information regarding sanitary conditions relating to milk and cream supplies from the U. S. Public Health Service.

Rising costs of materials and shortage of manpower have seriously impeded the construction of much-needed sewage and industrial wastes treatment plants in New Jersey. During the year the Department approved plans for 102 projects with an estimated cost of over \$14,000,000. However, only 66 projects for which permits were issued were started and these were pri-

marily sewer extensions or additions to existing installations, and the total cost was less than \$4,000,000. The construction of 36 new projects for which permits were issued was not started because bids submitted were greatly in excess of the original estimates. Of 59 water projects for which permits were issued, however, 56 were started involving the expenditure of one and a half million dollars.

There has been an increase since the end of the war in the sales of household garbage grinders for the disposal of household garbage through the domestic plumbing system to public sewage disposal systems. The Department has emphasized during the year that this method of disposal of garbage will place an additional pollution load on our streams and will increase the present problem of overloading our already inadequate sewage treatment plants.

Sanitary surveys of the New Jersey coastal recreation areas were conducted by the Bureau of Engineering and Sanitation and reports were made of the bacteriological content of bathing waters in these areas.

HEALTH NEEDS

The need of the Department for adequate quarters increases with each year. Space is now occupied on three floors and the basement of the State House and rented space is used in seven separate buildings scattered throughout the business section of Trenton. Repeated studies have indicated an urgent need for more space in a single building for efficient and proper offices for the State Department of Health. While no immediate relief appears possible, this housing need of one of the principal departments of the State Government must be met and faced during the next few years.

New Jersey's primary health problem, that of larger local health units, particularly for rural areas, remains unmet in much of our State. It is to this problem that we must devote the utmost in our time and energy and money if the health of the people of New Jersey is to be further improved.

* * * * *

IN MEMORIAM

J. LYNN MAHAFFEY, M. D.

April 13, 1879—November 1, 1948

Member, State Board of Health, 1925-1931

Director, 1931-1947

Director and Acting Commissioner of Health, 1947-1948

Report of the Commissioner of Health

June 1, 1948--June 30, 1948

By DANIEL BERGSMA, M. D., M. P. H.

His Excellency Governor Alfred E. Driscoll nominated Daniel Bergsma, A. B., M. D., M. P. H., F. A. P. H. A., as the first State Commissioner of Health on May 12, 1948. This nomination was confirmed by the Senate on May 14, 1948. Dr. Bergsma was sworn into office on June 1, 1948.

A review of Department of Health budgets of recent years revealed a rapidly rising percentage of total available funds being spent for salaries. This process was reaching the point where program activity would soon be curtailed because of lack of funds to purchase equipment and supplies to keep all personnel fully occupied. Accordingly, a policy was established to permit each position that became vacant for whatever reason to remain vacant unless such action would hinder the reorganization of the Department.

A review of the personnel showed both strengths and weaknesses. Unfortunately, a significant proportion of employees were not assigned to the duties for which they were best fitted, or their qualifications did not meet modern standards for public health personnel as set up after long study by the American Public Health Association and as accepted by public health experts generally. The need to obtain the services of several unusually well-qualified persons, using funds released from certain position vacancies mentioned above, as part of the reorganization process, was evident.

A review of the organization plan of the Department revealed nine rather autonomous units of very unequal size and responsibility and with overlapping programs. Accordingly, a reorganization plan was prepared which divided all public health activity at the state level into six units, arranged primarily on a functional basis. This plan calls for a teamlike integration and co-ordination of program planning and activity. The plan was unanimously approved by the Public Health Council in accordance with law at its regular meeting in June, 1948.

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LOCAL HEALTH SERVICES

Local health services for citizens can best be provided by a competent local health department staff. Very few exist in New Jersey. Most municipalities in this State have far too few citizens to permit of such a local health department staff on an individual municipal basis. With permissive legislation they could have all the benefits of a good, effective health department staff by collective action on a multi-municipal health department basis. This has been found necessary and effective in highway construction and in welfare. Consolidation of rural school districts to eliminate one-room schoolhouses was also desirable and effective. Disease germs do not regard man-made laws or municipal boundaries. Urban folk eat, swim and camp in rural areas and rural folk visit theatres and shopping centers in the nearest cities. Thus communicable diseases can and do spread from urban to rural folk and vice versa. Only well-planned and executed public health and medical services can reduce illness and death to a minimum. Every Jerseyman should have such protection, which can be provided only by co-operative action of a good local health department and the allied medical professions. The State Department of Health will strive to help create such effective local health departments and will serve such local departments with special laboratory, statistical and evaluation services and also render consultative aid in special program activities, such as communicable diseases, nutrition, and maternal, child and adult health.

Report of the Division of Personnel, Administration Records and Accounts

July 1, 1947—June 30, 1948

By C. M. CALLAHAN, *Chief*

In accordance with the provisions of P. L. 1947, c. 177, a Public Health Council was appointed by the Governor and confirmed by the Senate, June 30, 1947. The Public Health Council is composed of the following members:

<i>Name</i>	<i>Address</i>	<i>Expiration of Term</i>
Harvey N. Davis	Hoboken	June 30, 1948
Wheeler McMillen	Hopewell	June 30, 1949
Frederick P. Lee, M. D.	Paterson	June 30, 1950
Walter G. Alexander, M. D.	Orange	June 30, 1951
Marcus W. Newcomb, M. D.	Browns Mills	June 30, 1952
Florence M. Farr (Mrs.)	Brookside	June 30, 1953
Harry N. Lendall	New Brunswick	June 30, 1954

At a meeting of the Public Health Council held on July 8, 1947, it was agreed that the Council would meet on the second Monday of each month. At a meeting held on August 11, 1947, Mr. Wheeler McMillen was elected Chairman; Dr. Marcus W. Newcomb was elected Vice-Chairman; and Mrs. Florence M. Farr was elected Secretary.

At a meeting held on November 19, 1947, the Chairman appointed a Legislative Committee of the Council as follows: Dr. Newcomb, Chairman; Dr. Lee, Mrs. Farr.

On May 12, 1948, Governor Driscoll appointed Daniel Bergsma, M. D., M. P. H., as State Commissioner of Health. This appointment was confirmed by the Senate on May 14, 1948. Dr. Bergsma took the oath of office on June 1, 1948, and his appointment took effect as of that date. Dr. Bergsma succeeded J. Lynn Mahaffey, M. D., who had been continued in office as Director and Acting Commissioner of Health, under the provisions of Chapter 177, Public Laws 1947, reorganizing the State Department of Health effective July 1, 1947.

EXAMINATION FOR LICENSING OF HEALTH OFFICERS AND INSPECTORS

The Public Health Council at its meeting of August 11, 1947, adopted a series of qualifications for health officers and inspectors of various types, in accordance with provisions of Chapter 177, Public Laws 1947.

Examinations were held on the last Friday of October, January and April.

Patrick J. Monaghan, Newark; Armour C. Wood, D. V. M., Trenton; Leonid S. Snegireff, M. D., Trenton; Dennis J. Sullivan, Jersey City; Harold A. Murray, M. D., Newark; Ralph P. Shaw, Civil Service Commission, and John E. Bacon of the State Department of Health were appointed as members of the Board of Examiners of Health Officers and Inspectors for the year beginning March 1, 1948. The Board organized by the election of Leonid S. Snegireff, M. D., as Chairman, and John E. Bacon as Secretary.

During the year there were filed with the Department 145 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, 21; sanitary inspector, first class, 28; sanitary inspector, second class, 15; sanitary inspector, third class, none; plumbing inspector, first grade, 27; plumbing inspector, second grade, 13; veterinary meat inspector, 3; milk inspector, 3; food and drug inspector, 1; lay meat inspector, none.

LEGISLATION

The following legislation of interest to health officials was enacted by the 1948 Legislature:

S-22, C. 444 (Armstrong). Makes Department of Health a "principal department" in executive branch of State Government. Includes Perth Amboy Port health officer and his deputy, Board of Barber Examiners, Board of Beauty Culture Control, Crippled Children Commission. Sets up a Bureau of Examination, Licensing and Registration within the department.

S-40, C. 334 (Hannold). Grants judges of County Courts under new State Constitution power to solemnize marriages.

S-118, C. 383 (Herbert). Provides that boards of freeholders instead of Supreme Court justices name county mosquito extermination commissions. (See S-396, C. 387, P. L. 1948.)

S-137, C. 53 (Bodine). Requires school buses to have proper mechanical equipment and signs warning other drivers of rules for approaching such buses while receiving, or discharging, children.

S-143, C. 148 (Littell). Amends well drillers' license act to exclude cored holes three inches or less in diameter drilled for exploration or investigation.

S-206, C. 285 (Lewis). Increases fees chargeable by municipal registrars of vital statistics for birth and death certificates and for marriage licenses.

DIV. OF PERSONNEL, ADM., RECORDS AND ACCOUNTS 17

S-249, C. 125 (Redding). Adds amidone to list of drugs regulated under Narcotics Act and other substances neither physically nor chemically distinguishable from narcotics listed in act.

S-262, C. 126 (Redding). Provides photo-recording of municipal vital statistics and interchange of such statistics between municipalities where necessary.

S-263, C. 205 (Redding). Governs terms of local registrars of vital statistics; permits deputies to fill vacancies upon death of registrar.

S-264, C. 127 (Redding). Provides penalties for solemnization of marriages by persons not authorized to do so.

S-355, C. 453 (Van Alstyne). To establish in the Department of Health facilities for medical treatment of alcoholics and prevention of alcoholism; abolishes a similar commission created under Chapter 94, P. L. 1945.

S-389, C. 348 (Herbert). Permits two or more municipalities to operate garbage disposal systems; permits creation of incinerator authorities for such purpose.

S-394, C. 350 (Van Alstyne). Designates optometry as profession and regulates practice of same.

SJR-5, C. JR. 2 (Lewis). Requests Governor to proclaim April as "Cancer Control Month."

SJR-11, C. JR. 13 (Bodine, Hess, Hand). Creates permanent Joint Memorial Blue Star Drive Commission of eight members to plan landscaping and arborial ornamentation of Blue Star Drive in honor of World War II veterans.

A-13, C. 281 (McCay). Amends act governing referenda in second-class cities authorizing creation of municipal boards of public works and municipal water boards.

A-14, C. 24 (McCay). Specifies referenda at general elections for cities to adopt chapter 161, laws of 1916, authorizing issue of bonds, purchase of land and opening roads across non-navigable streams.

A-15, C. 187 (McCay). Specifies referenda at general elections in second-class cities to create boards of public works and water boards.

A-16, C. 25 (McCay). Specifies members of district sewerage boards be chosen at general elections.

A-60, C. 322 (McCay). Substitutes Superior Court for Chancery Court as court to order expunging of record of marriages from State Bureau of Vital Statistics after such marriages have been declared null.

A-66, C. 388 (McCay). Permit civil actions to determine mental incompetency without a jury unless jury trial is demanded by alleged incompetent or person in his behalf.

A-101, C. 42 (Curtis). Permits Common Pleas Courts to authorize county tuberculosis sanatoria superintendents to parole or discharge patients.

A-105, C. 34 (Salsburg). Defines and regulates practice of dentistry.

A-137, C. 53 (Russell). Permits all municipalities not having municipal hospitals to determine amounts of appropriations needed to be made for private charitable hospitals, both for treatment of indigent patients and for general support of private hospitals.

A-219, C. 50 (Litvany). Permits registered assistant pharmacists, on payment of \$25 for each examination, to be tested in practical pharmacy and laboratory work for registered pharmacist certificates; limits candidates to three examinations, to be taken within two years of passage of present bill.

A-223, C. 135 (Greenbaum). Adjudges common drug addicts as disorderly persons.

A-257, C. 222 (Mackey). Increases from \$200,000 to \$300,000, appropriation boards of freeholders may make annually to private charitable hospitals.

A-265, C. 36 (Greenbaum). Repeals section 24:13-4, Revised Statutes, containing restrictions against sale of yellow-colored oleomargarine.

A-271, C. 276 (Miller). Permits local boards of health to enact ordinances establishing plumbing codes without including text of codes, if copies of codes are otherwise available.

A-272, C. 275 (Miller). Governs advertising by local boards of health in enacting ordinances establishing plumbing codes.

A-273, C. 105 (Mehorter). Regulates drug stores; governs issuance of temporary permits.

A-297, C. 224 (Shershin). Permits pensioning of directors of public health laboratories in second-class cities, having 25,000 tests per year, where such directors have served as such and as assistants for aggregate of 25 years and are age 65.

A-329, C. 136 (Field). Permits sanitary sewer district authorities in first and second-class counties to issue bonds up to 10 per cent of assessed value of real property in municipalities having contracts with such authorities.

A-387, C. 191 (Thomas). Permits boards of education to establish special classes in institutions for instruction of eight or more physically handicapped persons.

A-492, C. 306 (Reiffin). Increases mileage rate for State employees using own autos for official business from 5 cents to 7 cents per mile.

A-499, C. 232 (Kates). Permits sale of municipal utilities to another municipality without necessity of referendum.

A-531, C. 458 (Dixon). Transfers functions of Director of Agriculture Experiment Station with reference to butter fat testing to Secretary of Agriculture.

A-553, C. 397 (Kates). Permits municipalities to sell or lease utilities to other municipalities or sanitary sewer authorities or other public bodies, without the necessity for referendum.

AJR-2, C. JR. 3 (Russell). Creates commission of five, including representation from Institutions and Agencies Department, Economics Development Department, League of Municipalities, hospitals and Legislature, to survey voluntary hospitals to determine steps to relieve overcrowding and afford more revenue.

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The following bills were introduced in the 1948 Legislature, but did not become laws:

S-21 (Armstrong). Creates agency within state departments, of commissioners appointed by President, Civil Service Commission—excepting certain specified departments—to conduct hearings and make procedure conform to uniform standard; of administration; Secretary of State to compile administrative code, publish rules and decisions of commissioners weekly in New Jersey Register; decisions reviewable by Superior Court, Appellate Division.

S-120 (Herbert). Provides that rate paid by State for indigents in county tuberculosis institutions be one-half per capita maintenance cost.

S-128 (Farley). Places under Civil Service all personnel of municipal health departments.

S-148 (Lewis). Permits creation of county health districts, and creation of county health departments in other than first and second-class counties.

S-215 (Barton). Permits riparian owners, claiming infringement of rights because of potable water diversion by public agencies, to procure injunction only to protect preferential and paramount right and to prevent diverter from asserting adverse use which might grow into prescriptive right.

S-219 (Barton). Requires health department permits to establish commercial or mass bathing on watersheds above intake point of public potable water supply.

S-220 (Barton). Permits municipalities or other public agencies maintaining water sheds and systems to establish police to protect such facilities.

S-237 (Lewis). Requires dogs to be licensed beginning March 1 instead of January 1 of each year.

S-246 (Young). Permits local boards of health to pass ordinances requiring store owners agreeing to supply heat, to supply such heat at 68 degrees Fahrenheit between 6 A. M. and 10 P. M. from October 1 to May 1.

S-151 (Young). Provides that municipal clerks forward to State Health Department monthly data on dog licenses issued.

S-254 (Barton). Places in classified Civil Service borough engineers acting also as water and sewage supervisors. (Vetoed.)

S-268 (Wene). Permits Agriculture Department to revise specifications for egg standards.

S-307 (Farley). Requires certain hotels, rooming houses and motor courts having 25 or more rooms for guests to be provided with approved fire extinguishers of specified capacities for each 5,000 feet of floor area; provides for inspection and license of such premises; establishes position of State Fire Marshal in State Health Department to carry out provisions of act in certain municipalities; excepts buildings within purview of Tenement House Act.

S-313 (Herbert). Permits two or more municipalities to operate garbage disposal systems; permits creation of incinerator authorities for such purpose. (Vetoed.)

A-162 (Salsburg). Regulates issue of burial permits in towns and townships.

A-164 (Dixon). Defines "professional engineer," "practice of engineering," in act regulating and licensing engineers.

A-194 (Vogel). Creates cash sickness benefit fund for employees; utilizes one per cent employees' unemployment compensation tax for such fund.

A-200 (Herrmann). Creates cash sickness benefit fund for employees, utilizing one per cent employees' unemployment compensation tax for such fund.

A-203 (Musto). Forbids physicians or nurses to disclose, to public officers or courts, confidential information received from patients in connection with treatment for disease.

A-253 (Zangara). Permits local boards of health to pass ordinances protecting water supplies, regulating cutting and sale of ice and in other respects.

A-255 (Zangara). Creates Board of Examiners in Medical Technology.

A-292 (Shershin). Creates Recreation Commission and recreation bureau in State Department of Health; appropriates \$25,000.

A-308 (Bator). Requires sale of meat, meat products and poultry by weight.

A-317 (Bator). Requires sale of ice cream and other frozen products by weight.

A-359 (Dilger). Directs State Department of Health to establish health clinics for public to obtain at reasonable cost physical examinations, including cancer X-ray, cardiographic, laboratory and other tests. Appropriates \$100,000.

A-369 (Shershin). Repeals section 3, Chapter 240, Laws of 1947, relating to municipalities vacating cemetery lands.

A-372 (Shershin). Provides for Cancer Centre under Department of Institutions and Agencies; creates full-time director on salary fixed by department board of control. Appropriates \$250,000.

A-415 (Dixon). Provides new certificate of license, placing all engineering licenses heretofore issued in classification of "professional engineer."

A-447 (Dilger). Permits State Health Department to buy for free distribution, serum albumin, streptomycin, penicillin and other biologicals. (Vetoed.)

A-458 (McCay). Permits quarantining by local health authorities of persons with tuberculosis of the lungs in communicable form.

A-463 (Salsburg). Amends 1947 well drillers' act, reducing experience before license from 10 to 5 years prior to July 1, 1948; journeymen well drillers from 5 to 3 years.

A-567 (Dixon). Places control of milk and cream, registration of dealers, processing, handling and sale of products under Secretary of Agriculture.

A-569 (Russell). Repeals the Milk Control Act; abolishes the Milk Control Board.

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APPROPRIATIONS

During the fiscal year ending June 30, 1948, there was appropriated through state and federal sources to the New Jersey State Health Department the sum of \$1,499,724.23.

The State Legislature appropriated \$739,486.03, and the following sums were received from the Federal Government:

Social Security Act, Title V (U. S. Children's Bureau)	\$107,416.20
Emergency Maternity and Infant Care Program (U. S. Children's Bureau)	46,783.00
General Health Funds (U. S. P. H. S.)	202,202.00
Venereal Disease Control Act (U. S. P. H. S.)	141,375.00
Rapid Treatment Facilities (U. S. P. H. S.)	34,240.00
Tuberculosis Control (U. S. P. H. S.)	129,888.00
Adult and Industrial Health (U. S. P. H. S.)	30,032.00
Cancer Control (U. S. P. H. S.)	68,302.00
Total federal funds	<u>\$760,238.20</u>

In addition to the foregoing appropriations, \$49,414 was received from dog registration fees, \$45,027.29 of which was used for rabies control. In accordance with the provisions of Chapter 151, P. L. 1941, the sum of \$26,127.26 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, 1948

<i>Source</i>	<i>Amount</i>
Analyses of water samples	\$1,778.00
Audiometer rental	100.00
Laboratory receipts	9.10
Licenses—cold storage	890.00
“ goat milk	183.31
“ ice cream	6,870.00
“ milk plant	15,375.00
“ narcotics	565.00
“ sewage and water plant operators	3,971.00
Penalties—violations of food and drug laws	2,494.25
“ Dog Control Act	3,116.00
“ vital statistics	50.00
Searches of vital statistics	22,750.41
Miscellaneous (engineering and sanitation copies for certification)	1,204.94
Smallpox vaccine (P. L. 1947, c. 88)	174.80
Total revenue transmitted to the State Treasury	<u>\$59,531.81</u>

**STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE
STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1948**

STATE FUNDS—CENTRAL ADMINISTRATION BUREAUS

	Personnel, Adm. Rec'ds and Accounts	Bacteri- ology	Chemistry	Dental Health	Engineering and Sanitation	Food and Drugs	Local Health	Negro Health	Vital Statistics	Totals
Salaries	\$30,230.95	\$46,102.08	\$27,180.00	\$63,460.97	\$52,997.55	\$91,139.07	\$45,968.39	\$11,340.00	\$55,384.46	\$432,863.47
War adjustment .....	.....	340.56	.....	.....	.....	.....	55.92	.....	156.00	552.48
Laboratory supplies .....	.....	17,673.36	2,460.04	.....	.....	787.61	.....	.....	.....	20,921.01
Pneumonia and measles serum .....	.....	.....	.....	.....	.....	.....	155.36	.....	.....	155.36
Biological assays .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria toxoid and smallpox vaccine .....	.....	.....	.....	.....	.....	.....	15,137.10	.....	.....	15,137.10
Whooping cough immunization .....	.....	.....	.....	.....	.....	.....	3,672.00	.....	.....	3,672.00
Typhoid vaccine .....	.....	.....	.....	.....	.....	.....	242.55	.....	.....	242.55
Stationery and office supplies	3,380.45	.....	.....	.....	.....	.....	58.41	.....	.....	3,438.86
Vehicular transportation supplies	188.53	.....	.....	.....	767.74	209.70	581.79	.....	.....	1,747.76
Engineering supplies .....	.....	.....	.....	.....	663.46	.....	.....	.....	.....	663.46
Educational, recreational and library supplies	198.20	.....	.....	.....	.....	.....	.....	.....	.....	198.20
Dental health educational material .....	.....	.....	.....	797.32	.....	.....	.....	.....	.....	797.32
Inspectors' supplies .....	.....	.....	.....	.....	.....	92.03	.....	.....	.....	92.03
Printing	2,690.43	1,616.61	342.75	335.46	600.33	416.63	477.77	146.40	2,480.36	9,106.74
Traveling expenses	1,490.01	131.89	90.34	729.98	2,362.23	13,314.94	1,283.50	1,983.12	493.40	21,885.41
Binding volumes of birth, marriage and death certificates .....	.....	.....	.....	.....	.....	.....	.....	.....	745.00	745.00
Rental of tabulation machines .....	.....	.....	.....	.....	.....	.....	546.50	708.00	.....	1,254.50
Garage rents	105.00	.....	.....	.....	520.00	120.00	300.00	.....	.....	1,045.00
Freight, express and cartage	1,278.04	.....	.....	.....	.....	.....	.....	.....	.....	1,278.04
Subscriptions	517.16	.....	.....	.....	.....	.....	.....	.....	.....	517.16
Maintenance of dental trailer .....	.....	.....	.....	1,428.64	.....	.....	.....	.....	.....	1,428.64
Household expenses .....	.....	352.87	.....	.....	.....	.....	.....	.....	.....	352.87
Miscellaneous expenses	415.72	.....	.....	.....	.....	.....	.....	.....	.....	415.72
Maintenance of boats and plants .....	.....	.....	.....	.....	.....	3,278.49	.....	.....	.....	3,278.49
Repairs and maintenance:										
Automotive equipment	1.50	.....	.....	.....	339.39	29.35	105.88	.....	.....	476.12
Office furniture, equipment and machines	499.62	.....	.....	.....	.....	.....	.....	.....	.....	499.62
Replacement of motor vehicles	1,107.48	.....	.....	.....	.....	.....	.....	.....	.....	1,107.48
Postage	2,600.00	.....	.....	.....	.....	.....	.....	.....	.....	2,600.00
Telephone and telegraph	600.00	.....	.....	.....	.....	.....	.....	.....	.....	600.00
Dental health equipment .....	.....	.....	.....	1,200.00	.....	.....	.....	.....	.....	1,200.00
Bleeding of sheep .....	.....	900.00	.....	.....	.....	.....	.....	.....	.....	900.00
Totals	\$54,309.09	\$67,117.37	\$30,073.13	\$67,952.37	\$58,250.70	\$109,447.82	\$68,585.17	\$14,177.52	\$59,259.22	\$529,172.39

DIV. OF PERSONNEL, ADM., RECORDS AND ACCOUNTS 23

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1948

STATE FUNDS

APPROPRIATIONS FOR SPECIFIC PURPOSES

	<i>Venereal Disease Control</i>	<i>Maternal and Child Health</i>	<i>Industrial Health</i>	<i>Totals</i>
Salaries	\$23,326.53	\$87,781.21	\$28,511.39	\$139,619.13
War adjustment	36.00	79.92	.....	115.92
Laboratory supplies, drugs and biologicals and equipment	4,982.15	639.24	2,562.63	8,184.02
Stationery and office supplies	858.20	1,157.60	282.77	2,298.57
Printing	450.67	388.74	1,222.20	2,061.61
Travel	825.84	12,889.85	3,913.54	17,629.23
Advertising .....	.....	.....	262.32	262.32
Subscriptions	85.50	12.50	91.00	189.00
Telephone and telegraph .....	.....	.....	1,395.00	1,395.00
Miscellaneous expenses .....	.....	71.17	60.63	131.80
Current Repairs:				
Office furniture, equipment and machines and scientific equipment	164.39	129.58	.....	293.97
Health educational materials .....	.....	.....	1,057.09	1,057.09
Rent .....	.....	.....	25.00	25.00
Freight and cartage	4.20	12.52	.....	16.72
Office equipment .....	.....	.....	614.39	614.39
Totals	<u>\$30,733.48</u>	<u>\$103,162.33</u>	<u>\$39,997.96</u>	<u>\$173,893.77</u>

TOTAL EXPENDITURES FROM STATE FUNDS

Central administration bureaus	\$529,172.39
Appropriations for specific purposes	173,893.77
Total	<u>\$703,066.16</u>

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1948

STATE FUNDS

RABIES CONTROL FUNDS

Salaries	\$30,018.86
Anti-rabies serum and vaccine	5,735.64
Stationery and office supplies	642.49
Motor vehicle transportation supplies	1,049.62
Printing	198.57
Travel	4,861.47
Insurance	10.00
Postage	500.00
Office rent	915.00
Garage rent	282.00
Replacement of office equipment	116.50
Telephone and telegraph	300.00
Miscellaneous expenses	189.81
Subscriptions	21.85
Current repairs	185.48
Total expenditures—rabies control	<u>\$45,027.29</u>

DEPARTMENT OF HEALTH

**STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1948**

FEDERAL FUNDS

<i>Project General Health</i>	<i>Salaries</i>	<i>Travel</i>	<i>Materials, Supplies and Services</i>	<i>Total Expendi- tures</i>
Bureau of Administration	\$14,559.58	\$635.62	\$11,606.34	\$26,801.54
Bureau of Bacteriology	32,229.52	.....	6,422.53	38,652.05
Bureau of Chemistry	14,400.00	.....	311.31	14,711.31
Division of Dental Health	17,904.00	993.81	499.54	19,397.35
Bureau of Engineering and Sanitation	18,330.49	688.53	1,712.00	20,731.02
Bureau of Food and Drugs	19,175.00	5,104.67	13,110.10	37,389.77
Bureau of Local Health Administration Atlantic, Cape May State Health District	9,170.70	921.21	2,840.83	12,932.74
Bergen, Passaic State Health District	9,809.90	579.98	1,132.50	11,522.38
Burlington State Health District	3,760.00	384.55	180.85	4,325.40
Cumberland, Gloucester, Salem Health District	8,520.00	1,848.31	596.80	10,965.11
Mercer County Health District	6,964.00	845.52	1,066.97	8,876.49
Monmouth, Ocean and part of Middle- sex State Health District .....	.....	13.60	.....	13.60
Somerset, Hunterdon, Middlesex, Camp Kilmer State Health District	3,469.30	383.53	143.05	3,995.88
Sussex, Warren, Morris State Health District	3,640.00	567.60	604.27	4,811.87
Camden County State Health District	4,080.00	656.62	1,031.97	5,768.59
Bureau of Vital Statistics	3,720.00	264.40	473.53	4,457.93
Bureau of Preventable Diseases	10,680.97	.....	1,821.49	12,502.46
Division of Health Education	18,115.82	966.65	1,538.80	20,621.27
In-service field orientation .....	.....	.....	2,553.92	2,553.92
Training of personnel .....	.....	.....	1,660.00	1,660.00
Encumbrance budget for prior years ..	.....	.....	595.00	595.00
	.....	.....	28,360.75	28,360.75
Total expenditures — general health funds	\$198,529.28	\$14,854.60	\$78,262.55	\$291,646.43
<i>Adult and Industrial Health</i>				
Division of Adult and Industrial Health	\$19,540.49	\$1,762.45	\$4,128.93	\$25,431.87
Division of Dental Health	2,250.00	.....	.....	2,250.00
Division of Health Education .....	.....	.....	120.95	120.95
Total expenditures—adult and industrial health	\$21,790.49	\$1,762.45	\$4,249.88	\$27,802.82
<i>Cancer Control</i>				
Bureau of Administration	\$2,520.00	.....	.....	\$2,520.00
Division of Cancer	24,822.61	\$1,953.21	\$13,848.12	40,623.94
Division of Health Education	4,862.00	.....	3,038.62	7,900.62
Bureau of Preventable Diseases	1,280.00	.....	.....	1,280.00
Statistical Research .....	.....	.....	427.03	427.03
Bureau of Vital Statistics	1,105.81	.....	532.00	1,637.81
Total expenditures — cancer control	\$34,590.42	\$1,953.21	\$17,845.77	\$54,389.40

DIV. OF PERSONNEL, ADM., RECORDS AND ACCOUNTS 25

**STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1948**

FEDERAL FUNDS—Continued

<i>Project</i>	<i>Salaries</i>	<i>Travel</i>	<i>Materials, Supplies and Services</i>	<i>Total Expendi- tures</i>
<i>Venereal Disease Control Act</i>				
Bureau of Bacteriology	\$3,762.47	\$57.24	\$8,517.00	\$12,336.71
Division of Health Education	1,186.66	.....	1,850.93	3,037.59
Division of Venereal Disease Control.	73,439.50	5,995.63	40,212.27	119,647.40
Training of personnel .....	.....	.....	835.00	835.00
Encumbrances for prior years .....	.....	.....	995.49	995.49
Total expenditures—Venereal Disease Control Act	\$78,388.63	\$6,052.87	\$52,410.69	\$136,852.19
Total expenditures — rapid treatment facilities .....	.....	.....	\$40,565.08	\$40,565.08
<i>Title V, Social Security Act</i>				
Total expenditures—maternal and child health	\$100,761.03	\$10,574.56	\$17,912.75	\$129,248.34
Emergency maternity and infant care .....	.....	.....	\$126,091.94	\$126,091.94
Total expenditures—emergency maternity and infant care ..	.....	.....	\$126,091.94	\$126,091.94
<i>Tuberculosis Control</i>				
Bureau of Bacteriology	\$6,270.00	.....	.....	\$6,270.00
Division of Tuberculosis Control	55,303.08	\$9,151.32	\$32,967.87	97,422.27
Division of Health Education	15,240.00	1,472.61	3,176.08	19,888.69
Encumbrances for prior years .....	.....	.....	2,587.94	2,587.94
Total expenditures — tuber- culosis control	\$76,813.08	\$10,623.93	\$38,731.89	\$126,168.90
Total federal funds expended.	\$510,872.93	\$45,821.62	\$376,070.55	\$932,765.10

DEPARTMENT OF HEALTH

**STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1948**

COMBINED EXPENDITURES—STATE AND FEDERAL FUNDS

Salaries (and War Adjustment)—

State		\$573,151.00
Federal: General health	\$198,529.28	
Venereal Disease Control Act	78,388.63	
Title V - maternal and child health ...	100,761.03	
Tuberculosis control	76,813.08	
Adult and industrial health	21,790.49	
Cancer control	34,590.42	
	<hr/>	510,872.93
		<hr/> \$1,084,023.93

Other Expenses—

State		\$129,915.16
Federal: General health	\$93,117.15	
Venereal Disease Control Act	58,463.56	
Rapid treatment facilities	40,565.08	
Title V - maternal and child health ...	28,487.31	
Emergency maternity and infant care..	126,091.94	
Tuberculosis control	49,355.82	
Adult and industrial health	6,012.33	
Cancer control	19,798.98	
	<hr/>	421,892.17
		<hr/> \$551,807.33

Total expended—state and federal funds	\$1,635,831.26
Expended for rabies control from dog registration fees	\$45,027.29

Report of the Bureau of Bacteriology

July 1, 1947—June 30, 1948

By JOHN H. SPOONER, JR., *Chief*

The Bureau of Bacteriology at the end of the fiscal year 1948 has a forward outlook. The reason for this optimistic viewpoint is the planned program of reorganization of the State Health Department under its newly appointed State Commissioner of Health, Daniel Bergsma, M. D., M. P. H. That such a hopeful outlook may be justified is plainly shown by Dr. Bergsma's recommendation that a Bureau of Laboratories be formed as one of the six bureaus of the State Department of Health. This demonstrates that the Commissioner recognizes the important place of the laboratory in the field of modern public health.

Outstanding in the work of the Bureau during the fiscal year was the establishment of a new procedure of tuberculosis culture, basic research on serology problems and an increase in Rh factor determination requests. This work is described in more detail in the following paragraphs.

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 gonorrhœa; cultures and identifies pathogenic bacteria, performs agglutination and culture tests for the enteric diseases; makes smears, cultures, 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.

A total of 341,790 serological, bacteriological and parasitological specimens were examined during the fiscal year.

TABLE I

NUMBER OF SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1948

Diphtheria	5,688
Tuberculosis	12,978
Blood agglutinations	6,578
Enteric diseases (feces and urine)	10,964
Gonorrhœa	8,911
Syphilis	282,748
Rh factors	7,743
Blood types	1,357
Miscellaneous specimens	4,823
Total	341,790

"Diphtheria" refers to the number of throat cultures examined for *Corynebacterium diphtheriae* during the fiscal year.

"Tuberculosis" refers to the number of smear specimens examined for *Mycobacterium tuberculosis* during the fiscal year.

"Blood agglutinations" refers to the number of blood specimens examined for such diseases as typhoid fever, paratyphoid fever, undulant fever, Rocky Mountain spotted fever and tularemia. See also Table VIII.

"Enteric pathogens" refers to the examination of feces and urine specimens for the presence of *Eberthella typhosa*, *Salmonella* and *Shigella* organisms.

"Blood types" refers to the typing of blood specimens. It is a new activity undertaken at the request of physicians interested also in the Rh factor determination.

"Miscellaneous" refers to a number of examinations less in number than those listed in Table I. These examinations are itemized in Table X.

Table I shows a slight decrease in the volume of work performed in the last fiscal year as compared with the figures for the year ending June 30, 1947. A part of this decrease may be accounted for by the fact that oftentimes we were unable to supply all the mailing containers that were requested by physicians and various health organizations using our services throughout the State. This slight decrease in volume of work in the serology division was utilized by Mr. C. H. Bunting, Senior Serologist, and Mrs. Eleanor Thomas, Assistant Serologist, in performing a number of trial projects on serology problems. This work consisted of a study of standardization of various antigens for the Wassermann test; comparison of quantitative results on the Kolmer, Mazzini and V. D. R. L. tests; comparative tests on the different hydrogen ion con-

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centration of physiological salt solutions and a study of complement titrations in the Kolmer test; a standing and shaking comparative test for sensitivity and size of antigen particles in the Kahn test. A comparison between the V. D. R. L. antigen and Mazzini antigen was also made on a large volume of routine specimens. These tests were performed at the request of the Venereal Disease Research Laboratory and the results reported to them.

Under the direct supervision of Mr. J. N. Welsh, Senior Bacteriologist, the Bureau instituted a new procedure in tuberculosis culture during the year. This was made possible by a transfer of funds to the Bureau of Bacteriology from the Division of Tuberculosis Control. We were unable to start our culture work at the beginning of the fiscal year because of our inability to secure necessary glassware at that time. Results of the cultures so far made are shown in Table VII.

Bacteriology also prepared a number of sera for precipitation tests to determine the type of meat being offered for sale to the public. This work was done at the request of the Bureau of Food and Drugs.

Requests for Rh factor determination greatly increased. The number of Rh factor determinations performed for the year ending June 30, 1947, was 2,120; this year the total was 7,743—positive, 6,634; negative, 1,109. The total number of specimens examined in 1948 was 341,790; in 1947, 360,105; and in 1946, 321,610.

TABLE II

SPECIMENS OF BLOOD AND SPINAL FLUID EXAMINED FOR SYPHILIS DURING YEAR ENDING
JUNE 30, 1948, BY MONTHS

<i>Month</i>	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
July	1,650	750	20,471	637	23,508
August	1,751	795	19,818	567	22,931
September	1,841	845	23,896	774	27,356
October	1,742	887	24,195	813	27,637
November	1,236	559	18,710	502	21,007
December	1,296	566	16,947	590	19,399
January	1,477	482	18,581	1,034	21,574
February	1,311	606	16,564	1,003	19,484
March	1,351	724	21,751	608	24,434
April	1,631	581	20,991	439	23,642
May	1,527	636	21,239	427	23,829
June	1,668	547	25,105	627	27,947
	18,481	7,978	248,268	8,021	282,748

This table shows 6.5 per cent positive, 2.8 per cent doubtful, 2.8 per cent unsatisfactory and 87.8 per cent negative. The Mazzini flocculation test is used as a screen test on all specimens. Specimens showing a reaction of positive or doubtful or unsatisfactory are further tested by the Kolmer complement fixation test and the Kahn precipitation test. Where there is insufficient serum for these tests a V. D. R. L. slide test may be used as a check on the original results. The V. D. R. L. test refers to the cardiolipin-lecithin antigen as developed for use at the Venereal Disease Research Laboratory at Staten Island. It is a flocculation test similar to the Mazzini. When the Bureau started using this test slips containing information about the test were mimeographed and returned with the report to the physician. 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 above. 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, and the inactive undiluted serum gives a 3+ or more result in its respective test.

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. This table shows that whereas the number of serology specimens was 282,748, the actual number of tests performed in serology more nearly approximated 330,000.

TABLE III

Premarital specimens	52,297
Positive premarital specimens	886
Prenatal specimens	41,046
Positive prenatal specimens	541
Spinal fluid specimens	2,056
Mazzini tests	271,835
Quantitative Mazzini tests	247
Kahn tests	18,935
Quantitative Kahn tests	261
V. D. R. L. slide tests	2,090
Kolmer tests	29,530
Quantitative Kolmer tests	3,299

The Kolmer quantitative test is made on all spinal fluids, 2,056 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

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"Merthiolate" to act as a preservative. These containers may be obtained in any quantity upon request.

There were 4,136 less premarital examinations and 7,279 less prenatal examinations this year. 1.69 per cent of the premarital specimens were found positive; 1.3 per cent of the prenatals gave positive reactions. This percentage very clearly approximates the figures of last year. Premarital certificates were also issued to service men who had their blood tests performed in Army, Navy and other service laboratories. 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 and 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.

EVALUATION STUDY

In 1948, the Bureau of Bacteriology again participated 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 per cent and the sensitivity tests within 10 per cent of the author's standard.

Following are the results obtained in the Bureau of Bacteriology on 236 sera tested in the syphilitic group and 134 in the non-syphilitic group:

	<i>Sensitivity</i>	<i>Specificity</i>
Mazzini (flocculation)		
Author control	75.0	99.3
Bureau of Bacteriology	71.3	99.3
Kolmer (complement fixation)		
Author control	74.4	100.0
Bureau of Bacteriology	63.2*	98.9
Kahn (precipitation)		
Author control	66.2	100.0
Bureau of Bacteriology	67.2	99.7

*The author used the new, more sensitive Kolmer antigen.

The following table shows the results of culture inoculations for *M. tuberculosis* as performed from the time this work was started in April up to June 30, 1948:

<i>Material</i>	<i>Petragnani's</i>		<i>Lowenstein's</i>	
	<i>Positive</i>	<i>Negative</i>	<i>Positive</i>	<i>Negative</i>
Sputa	1	14	1	14
Pleural fluid .....	..	3	1	2
Urine .....	..	6	..	6
Chest fluid .....	..	1	..	1
Gastric contents	1	1	..	2
	<hr/> 2	<hr/> 25	<hr/> 2	<hr/> 25

Blood agglutination tests are performed for typhoid O and H antigens, paratyphoid A and B, undulant fever, tularemia and the Weil-Felix reaction for typhus and Rocky Mountain spotted fever. The laboratory prepared its own antigens for these tests and used 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 decreased slightly as compared with those performed last year. Reactions are shown in Table VIII.

TABLE VIII
BLOOD AGGLUTINATION TESTS DURING YEAR ENDING JUNE 30, 1948

	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
Typhoid fever	65	2,134	84	2,283
Paratyphoid fever	23	1,282	19	1,324
Undulant fever	73	2,619	50	2,742
Rocky Mountain spotted and typhus fevers	7	150	11	168
Tularemia	2	59	..	61
	<hr/> 170	<hr/> 6,244	<hr/> 164	<hr/> 6,578

There was a slight decrease in the number of cultural examinations (feces and urine) for enteric pathogens made this year. This work includes the more complete identification of the *Salmonellas* into their respective groups. Results of specimens are reported to the physician and culture of the *Salmonella* organism sent to the *Salmonella* Typing Center at the University of Kentucky. The cultures so identified are as follows:

<i>S. typhimurium</i>	3
<i>S. derby</i>	3
<i>S. montevideo</i>	2
<i>S. oregon</i>	1
<i>S. mississippi</i>	1
<i>S. typhimurium</i> variation copenhagen	1

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TABLE IX

FECES AND URINE SPECIMENS EXAMINED FOR ENTERIC PATHOGENS DURING YEAR
ENDING JUNE 30, 1948

	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
Eberthella typhosa	18	3,455	117	3,590
Salmonellas	34	3,439	117	3,590
Shigellas .....	..	3,473	117	3,590
No examination .....	..	....	194	194
	<hr/> 52	<hr/> 10,367	<hr/> 545	<hr/> 10,964

The following Table is a list of specimens classified as "Miscellaneous."

TABLE X

MISCELLANEOUS SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1948

	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Rabies	62	294	10
Anthrax	1	..	..
Bacterial infection (blood, body fluids, pus, etc.)	335	39	9
Globulin	1	53	1
Gonococcus infection (eye smears)	2	46	7
Hemolytic streptococci	248	467	..
Infectious mononucleosis	53	232	3
Malaria	10	110	1
N. meningitidis .....	..	15	..
Occult blood	1	4	..
Ophthalmia neonatorum	6	2	..
Ova and parasites	26	676	3
H. pertussis	1	21	3
Pneumonia	1	5	..
Treponema pallida	1	2	3
Trichinosis .....	..	3	..
M. tuberculosis (blood, body fluids, urine, pus, etc.)	84	878	12
Vincent's angina	65	595	10
Special examination of eating utensils	57	226	..
Other unusual examinations	78	60	1
	<hr/> 1,032	<hr/> 3,728	<hr/> 63
Total "Miscellaneous"	4,823		

DEPARTMENT OF HEALTH

TABLE XI

RABIES SPECIMENS (SPECIES OF ANIMALS) EXAMINED DURING YEAR ENDING
JUNE 30, 1948

Dogs	Positive, 62; negative, 231; unsatisfactory, 8.
Cats	Negative, 45; unsatisfactory, 2.
Squirrels	Negative, 7.
Chipmunks	Negative, 1.
Mice	Negative, 1.
Cows	Negative, 3.
Hamsters	Negative, 1.
Rats	Negative, 1.
Horses	Negative, 2.
Lambs	Negative, 1.
Rabbits	Negative, 1.

YEARLY TOTALS OF ANIMALS EXAMINED FOR RABIES FROM 1940 TO 1948, INCLUSIVE

	1940	1941	1942	1943	1944	1945	1946	1947	1948
Positive	116	76	45	8	8	12	60	114	62
Negative	140	144	129	103	90	104	94	237	294
Unsatisfactory	15	7	17	15	7	18	8	28	10
Total	271	227	191	126	105	134	162	379	366

MUNICIPALITIES, ARRANGED BY COUNTIES, FROM WHICH RABID ANIMALS WERE
RECEIVED DURING YEAR ENDING JUNE 30, 1948

Essex County—Bloomfield, 1.

Hunterdon County—Califon, 1; Lebanon, 1.

Mercer County—Hopewell, 4; Princeton, 10; Trenton, 1.

Middlesex County—Dunellen, 1; Metuchen, 1; New Brunswick, 6; New Market, 1;
South Plainfield, 1.

Morris County—Morristown, 1.

Passaic County—Paterson, 1.

Somerset County—Belle Mead, 1; Middlebush, 2; North Plainfield, 1; Somerville, 8;
South Bound Brook, 1.

Union County—Fanwood, 1; Linden, 1; Mountainside, 2; Plainfield, 2; Rahway, 1;
Westfield, 7.

Warren County—Belvidere, 2; Hackettstown, 1; Warren Glen, 1; Washington, 1.

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

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weeks. The following table shows the source of material inoculated into Swiss mice:

TABLE XII
MICE INOCULATIONS FOR RABIES

<i>Material</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Dog brain	1	165	2
Cat brain	33	..
Horse brain	1	..
Cow brain	1	..
Lamb brain	1	..
Squirrel brain	4	..
Rat brain	1	..
Mouse brain	1	..
Hamster brain	1	..
	<hr/> 1	<hr/> 208	<hr/> 2

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, 1948

Diphtheria (regular mailing cases)	5,435	
Extra swabs	800	
	<hr/>	6,235
Tuberculosis mailing cases		16,325
Typhoid fever mailing cases		1,411
Malaria mailing cases		87
Gonorrhoea mailing cases		9,996
Feces and urine mailing cases		5,595
Syphilis mailing cases		294,221
Treponema pallida mailing cases		17
Ophthalmia neonatorum mailing cases		17
Total		<hr/> 333,904

The Bureau of Bacteriology supplies media to other Bureaus in the state service, and local and private laboratories throughout the State. The Bureau prepared and supplied 1,896,600 cc. of various kinds of media during the fiscal year.

The Bureau of Bacteriology was forced to change the type of needle supplied to physicians for taking serology specimens during the year. This was due to the increased cost of the Petroff type of needle as formerly supplied. We returned to the old type of Wassermann needle. Some physicians had difficulty in using this type of needle. For this reason, instructions were

issued and were printed in the *Public Health News* and the *New Jersey Medical Society Journal*. Following are the instructions:

- A. Hold the tube or vial between the last fingers and the palm of the hand; grasp the needle at the hub between the thumb and the first finger, so that the hub rests on the lips of the tube. Have a tourniquet applied to patient's upper arm to engorge the veins. If the skin is held down firmly with the left hand it is easier to enter the vein.
- B. Some physicians prefer to hold the needle with a hemostat, pressing the tube against the handles, with the hub of the needle at the lip of the tube. The rigidity gained by this method makes it easier to enter the vein.
- C. Others prefer to hold only the needle in the right hand. It is held at the hub between the forefinger and the thumb. A piece of absorbent cotton is placed at the end of the needle opposite the point and as soon as blood appears on the cotton, the tube or vial is quickly substituted and the specimen collected.

Because of the large number of hemolyzed specimens being received at the laboratory during the winter, the following instructions were printed and appeared in the *Public Health News* and the *New Jersey Medical Society Journal*:

1. The specimen after being taken should not be exposed to freezing temperature or to extremely warm temperature for any length of time.
2. If a syringe is used, be sure the needle and syringe are perfectly dry.
3. Do not fill the tube so full that the insertion of the cork causes pressure.
4. Do not expel the blood through the needle. Disconnect the needle and allow the blood to flow gently from the syringe. Forcible expulsion ruptures the blood cells.
5. Collect blood before breakfast, preferably, or before meals. Do not take specimen during digestive period.
6. Allow the specimen to clot in a cool place and keep in the refrigerator until mailing time.
7. Mail specimens so that they will reach the laboratory in the shortest possible time. Avoid mailing on Friday, Saturday or Sunday, or before a holiday.
8. Be sure that the tube is securely stoppered, that the absorbent material has been replaced around the tube and that the mailing container cap is screwed on securely.

In conclusion, I would like to point out that besides the needed expansion in health services in the fields of serology, virology and general bacteriology, there is a need for improvement in the fundamental requirements of the laboratories on the fourth floor of the State House. Their efficiency could be greatly increased by providing a number of the following much-needed improvements:

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(1) Adequate gas pressure. (Gas pressure is low. Autoclaves used in sterilizing media and infectious material are brought to proper pressure and temperature with great difficulty and often after a long heating period.)

(2) Adequate water pressure. (Water pressure is often reduced to a mere trickle and many times fails altogether. This has resulted in the burning out of at least one valuable piece of laboratory apparatus.)

(3) An electrical voltage of 120 and 220. (Voltage on the fourth floor falls below 120 and 220 and has made it necessary for some of our electrical machinery to be re-wound to take care of the low voltage.)

(4) A daily supply of 2,000 gallons of 160° F. water. (At the present time the low pressure of gas is further reduced by heating all of our water on the fourth floor. The efficiency could be greatly increased by a centrally located water-heating plant.)

(5) A pressure steam line piped to the fourth floor to our autoclaves used for sterilizing, instead of the present method of making steam by gas heaters. (Such a steam line at present would greatly increase the efficiency of the autoclaves in quickly reaching the proper temperature and pressure.)

Even the remedies of these basic needs are, of course, only temporary palliatives. The need is for modern new quarters, thoughtfully planned to take care adequately of the future growth of the laboratories as reflected by the many requests for services throughout the State.

Report of Bureau of Chemistry

July 1, 1947—June 30, 1948

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, the State Department of Education, the Division of Purchase and Property, the State Police, the Fish and Game Commission, the Milk Control Board, state institutions and the 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, lake and stream water submitted by 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.

During the past year the drive against unscrupulous manufacturers of mayonnaise, salad dressing and vegetable oils was continued. All brands sold in New Jersey have been resurveyed and 129 samples examined. None was found to contain mineral oil. This substitute for olive, cottonseed and other edible oils has no food value, absorbs Vitamin A from the intestines and interferes with natural elimination.

Of the 3,600 milk samples examined, 3.1 per cent were found to be below standard, and most of these were below the amount of butter fat declared on the cap, even though above the legal standard of 3 per cent. Some samples were skimmed and contained added water.

There is an increasing tendency on the part of the housewife to use factory-prepared mixtures for piecrusts, cakes, muffins and biscuits. Generally these turn out satisfactory products when used in the home according to directions, and the time saved in preparing the end products indicates they are here to

stay, provided they are manufactured under proper sanitary conditions. Most brands of these ready-mixes sold in New Jersey have been collected and examined during the past year. Twenty-one per cent of those assayed have shown the presence of filth and/or insect infestation. Most of these cereal products are manufactured by concerns out of the State, 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.

In last year's annual report, mention was made that only in a small area having a 15-mile radius around the town of Glassboro in South Jersey do the public water supplies of New Jersey contain sufficient fluorine to be beneficial in inhibiting dental caries. These supplies are all deep artesian wells, contain fluorine not exceeding two parts per million and represent less than 4 per cent of the 270 public water supplies.

The following tabulation of the monthly fluorine content of these "high fluorine waters" of New Jersey over a four-month period shows appreciable variation in the samples collected at different times, being much lower in the early spring than in the late fall.

FLUORINE CONTENT OF SAMPLES COLLECTED
(PARTS PER MILLION)

<i>Towns</i>	<i>Nov. '47</i>	<i>Jan. '48</i>	<i>Feb. '48</i>	<i>March '48</i>	<i>% Variation bet. Max. & Min. F. Content</i>
Clarksboro	1.10	0.90	0.80	0.80	27%
Glassboro	1.32	1.30	...	0.50	62%
Mantua	1.10	0.80	0.80	0.70	36%
Mullica Hill	1.10	1.10	1.00	0.85	23%
Pitman (N. J. Conference Camp Meeting)	1.20	1.20	0.90	0.90	25%
Pitman (Water Dept.)	0.95	1.40	1.40	0.75	46%
Wenonah	0.95	0.90	0.90	0.45	53%
Woodbury	1.40	0.22	0.90	0.45	84%
Woodstown	2.00	1.50	1.80	0.75	63%

There were 15,270 samples of food, drugs, water, sewage and miscellaneous preparations examined during the past year. The following tabulations show in detail the number and nature of such analyses.

TABLE I
 SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY—JULY 1, 1947, to JUNE 30, 1948

<i>Months</i>	Public Water Supplies	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
July	698	33	156	98	35	3	22	19	11	20	1	..	..	1	13	1,110
August	485	45	84	26	11	4	15	3	8	80	5	3	..	1	11	781
September	465	16	87	2	14	12	9	116	8	149	60	26	..	..	12	976
October	406	14	105	2	15	..	..	57	..	99	58	22	..	3	12	793
November	295	45	74	..	25	3	..	66	1	1	57	14	..	..	6	587
December	367	20	64	..	13	..	5	57	..	2	3	9	..	..	8	548
1948																
January	276	11	58	..	16	8	..	40	..	1	43	5	..	..	95	553
February	289	15	57	..	11	5	..	68	1	2	1	1	..	..	33	483
March	476	54	68	1	13	5	..	68	..	4	2	4	..	..	5	700
April	508	16	83	3	17	3	10	27	2	17	16	2	..	..	7	711
May	388	15	100	2	7	5	..	76	42	22	47	..	..	3	18	725
June	344	14	101	35	12	2	22	34	12	64	34	59	140	..	31	904
Totals	4,997	298	1,037	169	189	50	83	631	85	461	327	145	140	8	251	8,871

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TABLE II

NUMBER AND CHARACTER OF SAMPLES EXAMINED IN FOOD AND DRUG LABORATORY—
JULY 1, 1947, TO JUNE 30, 1948

<i>Foods</i>	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>
Milk—chemical	3,490	113	3,603
Milk—bacteriological	30	..	30
Milk—phosphatase	498	73	571
Goat's milk—chemical	6	1	7
Goat's milk—phosphatase	1	..	1
Chocolate milk—chemical	107	4	111
Chocolate milk—phosphatase	9	..	9
Chocolate drinks	2	..	2
Buttermilk	1	..	1
Cream—sweet	97	1	98
Cream—sour	34	..	34
Ice cream	266	4	270
Sherberts .....	..	4	4
Butter	126	17	143
Carbonated beverages	369	21	390
Fruit syrups and fruit drinks	5	6	11
Tomato products	136	35	171
Cranberry sauce	4	2	6
Soy sauce	76	..	76
Ground beef	196	19	215
Vegetable and salad oils	12	..	12
Salad dressing and mayonnaise	43	..	43
Olive oil	74	2	76
Fruit cakes	6	4	10
Canned blueberries	7	..	7
Cracker meal	5	2	7
Bread	4	1	5
Flour .....	..	6	6
Piecrust mix	32	1	33
Cake mix	23	2	25
Muffin and biscuit mix	29	17	46
Miscellaneous cereal mixes	13	6	19
Miscellaneous food samples	25	11	36
Total food samples	5,726	352	6,078
<i>Drugs</i>			
Alkali solution	9	6	15
Extract of witch hazel	29	..	29
Marihuana leaves	1	..	1
Sulfathiozole tablets	6	..	6
Tincture of iodine	32	11	43
Epsom salts	3	..	3
Total drug samples	80	17	97
Urinalyses	47	..	47
Blood counts	125	..	125
Blood smears	44	..	44
Miscellaneous and experimental	8	..	8
Total	6,030	369	6,399

Report of the Bureau of Engineering and Sanitation

July 1, 1947—June 30, 1948

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

The inflated costs of materials and manpower are factors seriously impeding the construction of much-needed sewage and industrial waste treatment works throughout the State. Reference is made to the following table wherein it will be noted that the Department acted upon plans and specifications providing for the estimated expenditure of \$14,296,577.88 necessary to complete 102 projects. However, only \$3,831,496.98 was expended on actual construction—primarily sewer extensions and/or alterations and additions to existing installations—covering 66 projects for which permits issued. The construction of 36 projects—new sewer systems and appurtenant treatment works—for which permits issued and providing for the estimated expenditure of \$10,465,080.90 were not started during the year due to the fact that bids submitted were greatly in excess of engineers' estimates.

The costs of construction of water supply and treatment facilities do not reflect the same conditions as apply to sewage treatment. During the year, permits issued upon 59 water projects requiring an estimated expenditure of \$1,968,027.10, of which \$1,582,271.10 was either earmarked or actually expended for the completion of 56 installations (new supply sources or improvements to existing supplies). Only three projects were not started during the year. Two of the projects not started provided for complete replacement of existing treatment facilities at an estimated cost of \$378,256.

DEPARTMENT OF HEALTH

NUMBER OF WATER AND SEWERAGE PROJECTS EXAMINED AND APPROVED FROM
JULY 1, 1947 TO JUNE 30, 1948

<i>Type of Projects</i>	<i>No. of Projects</i>	<i>No. of Plans</i>	<i>Engineers' Estimates of Costs</i>
<i>Water:</i>			
Alterations, improvements and additions to waterworks	54	146	\$1,305,937.50
New systems and supplies	5	28	662,089.60
Total	59	174	\$1,968,027.10
<i>Sewage:</i>			
Sewer extensions	43	79	\$469,957.40
Alterations and additions to sewerage systems, sewage and/or industrial waste treatment plants	42	436	7,461,435.84
New sewage and/or industrial waste treat- ment plants, systems and appurtenances..	17	432	6,365,184.64
Total	102	947	\$14,296,577.88
Totals	161	1,121	\$16,264,604.98
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, 1947			\$10,230,671.32

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 lodging enforcement responsibility in the State Department of Health. There follows a summary of the man-hours spent by Bureau representatives in these enforcement activities:

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

<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) Slaughterhouses (b) Bathing Waters (c)</i>	<i>Conferences: Interstate Sanitation Comm.; Federal and State Agencies; Incident and Other Bodies</i>	<i>Total Hours All Basins</i>
Delaware River	574	286	47	31(b)	59	997
Raritan River	459	529	..	5(a) 40(b)	30	1,063
Passaic River	148	22	94	..	22	286
Hackensack River	93	34	31	25(a)	..	183
Atlantic Coastal Plain	281	7	38	213(c)	14	553
Other rivers	31	29	..	11(a) 18(b)	32	121
Special works	26	10	..	..	939	975
Total hours	1,612	917	210	343	1,096	4,178
Total hours potable waters	721	533	185	130	829	2,398

MAN-HOURS IN FIELD ON WATER SUPPLY SOURCES AND TREATMENT

Public Water Supplies

Inspections, including water treatment plants	1,254
Inspections on potable watersheds	2,398
Investigations of complaints	1,399
Conferences	241

Cross-connections

Inspections of installations	53
Conferences	27

Certification of Interstate Carriers

Inspections	189
Conferences

Rural School Supplies

Inspections	92
Conferences

Total hours	5,653
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DEPARTMENT OF HEALTH

SUMMARY OF MAN-HOURS

(1) In field on sewage, industrial wastes, stream pollution (less potable watersheds)	1,781
(2) In field on water supplies and supply sources (including potable watersheds)	6,653
(3) Man-hours required in office on plans, reports, conferences, etc.	13,028
Total man-hours	21,462
(4) Total man-hours overtime, field and office	3,688
Total man-hours expended	25,150

NOTICES AND OTHER LEGAL ACTIONS

Incident to the routine activities of the Bureau is the preparation of various legal documents, including resolutions, notices and orders necessary in the enforcement of certain public health statutes. There follows a summary of such documents prepared in the Bureau during the year, with appropriate references to the statutes involved:

Notices issued:

R. S. 58:10 et seq.	2
R. S. 58:10 et seq. and c. 192, P. L. 1945	1
R. S. 58:11 et seq.	3
R. S. 58:11 et seq., P. L. 1942, c. 308, and Title 26 of the Revised Statutes....	1
R. S. 58:12 et seq.	6
R. S. 58:12 et seq. and Title 26 of Revised Statutes	1
Orders of Necessity issued (R. S. 40:1-16, g)	9

Cases referred to Department of Law for violation of:

R. S. 58:12 et seq.	2
R. S. 58:11-14 et seq.	2
Chancery Court decrees	2

Cases withdrawn from Department of Law for violation of:

R. S. 58:10 et seq.	1
P. L. 1918, c. 23, and P. L. 1946, c. 295	1

Notices rescinded:

R. S. 58:11 et seq.	4
R. S. 58:11 et seq., P. L. 1942, c. 308, and Title 26 of the Revised Statutes ...	1

Permits rescinded and revoked:

Establishment of factories on potable watersheds	6
Public water supplies	5
Public sewerage works	6

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Records of Department transferred and/or changed:

Public sewerage works	1
Public water supplies	5
Application for approval of public water supply denied	1
Licenses of sewage treatment plant operators revoked	2

ORDERS OF NECESSITY

Orders of Necessity, so-called, were issued pursuant to R. S. 40:1-16, subdivision "g," and R. S. 58:12, in order that certain municipalities might exceed their statutory limitations of debt in order to construct sewerage facilities necessary to prevent or suppress present menaces to the public health. A summary of the orders issued follows:

August 15, 1947—City of Camden. The order requires the construction of sewerage works comprising intercepting sewers, pumping stations and sewage treatment plants.

August 15, 1947—Borough of Manville. The order requires the construction of sanitary sewer extensions.

December 5, 1947—Borough of Seaside Park. The order requires the construction of a new sewage treatment plant.

December 15, 1947—Borough of Bergenfield. The order requires the construction of additions and alterations to the sewage treatment plant operated jointly by the Boroughs of Bergenfield and Dumont.

December 15, 1947—Borough of Dumont—The order requires the construction of additions and alterations to the sewage treatment plant operated jointly by the Boroughs of Bergenfield and Dumont.

December 16, 1947—Borough of Fairlawn. The order requires the construction of sanitary sewer extensions as approved by the Passaic Valley Sewerage Commission.

December 22, 1947—Borough of West Cape May. The order requires the construction of sanitary sewers and a sewage ejector station to provide for the discharge of sewage from the Borough of West Cape May to the sewerage system of the City of Cape May, pursuant to agreement dated September 22, 1947, between those two municipalities.

March 1, 1948—Borough of Magnolia. The order requires that the borough construct a comprehensive sewer system and pumping station in accordance with plans approved by the Department on November 14, 1947.

May 6, 1948—Township of Haddon. The order requires that the township complete the construction of the new Westmont sewage treatment plant; and, the construction of a pumping station and force main designed to discharge sewage collected in the Bluebird section of the township to the proposed new Westmont sewage treatment plant thus effecting the abandonment of the Bluebird sewage treatment plant.

LICENSING ACT

R. S. 58:11-14 et seq. provides for the examination and licensing, under the direction of the State Department of Health, 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.

There follow data upon licensing during the fiscal year ending June 30, 1948:

<i>Applicants</i>	<i>Public Water Treatment Plants</i>	<i>Public Water Supply Systems</i>	<i>Public Sewage Treatment Plants</i>
Examined	38	35	39
Licensed	20	18	24

CROSS-CONNECTIONS

Original cross-connection permits were issued pursuant to P. L. 1942, c. 308, to the following companies:

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Hanover Township	Rowe Manufacturing Company (Whippany Section)	202
Harrison	Nopco Chemical Company	203
Harrison	Nopco Chemical Company	203-A
Keyport	Architectural Tiling Company, Inc.	201
New Brunswick	Cream-O-Land Dairy	204
Paterson	Elvan Properties	86
Perth Amboy	Lehigh Valley Railroad Company	206
Trenton	Fisher Body-Ternstedt Division (General Motors Corporation)	205

ESTABLISHMENT OF FACTORIES WITHIN POTABLE WATERSHEDS

Industrial development within the State of New Jersey, especially in the metropolitan area north of Trenton, has expanded at a rapid rate during the year. The Department, in accordance with the provisions of R. S. 58:10-17 et seq., which provides that "No factory, workshop or place for the manufacture of materials or goods shall be located or established on any watershed in this state above the point at which any public supply of potable water is taken, unless the person responsible for the operation of such factory, workshop or place shall have obtained from the department a written permit to so locate or establish the same," issued 25 permits to applicants requesting permission to establish in conformity with the aforesaid statute.

There follows a list of permits issued during the year, with the names and locations of the manufacturing concerns involved. It will be noted that the majority of the permits were for the establishment of factories on potable watersheds in the northern section of New Jersey.

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<i>Location</i>	<i>Name of Concern</i>
Delaware, Township of	George Unfried (slaughterhouse)
Emerson, Borough of	Emerson Cleaners
Emerson, Borough of	Emerson General Manufacturing
Franklin, Township of	Brunswick Paint Company
Hamilton, Township of	Canada Dry Bottling Company of Trenton, Inc.
Hanover, Township of	Maltbie Chemical Company
Hanover, Township of	The Flintkote Company
Hillsborough, Township of (Belle Mead section)	Anthony De Filippis
Hillsborough, Township of	Florenz Packing Company
Hillsdale, Borough of	Mercury Conveyor, Inc.
Hopewell, Township of	Anthony Stellitano (slaughterhouse)
Kenilworth, Borough of	Reduction and Refining Company
Landis, Township of	Kimble Glass Division of Owens-Illinois Glass Co.
New Providence, Borough of	Air Reduction Sales Company
Northvale, Borough of	Bergen Casket Co., Inc.
Park Ridge, Borough of	A & J Ruspini Covered Wire Company
Park Ridge, Borough of	General Distributing Company
Park Ridge, Borough of	Williams Brothers Weaving Co.
Summit, City of	Celanese Corp. of America
Summit, City of	Public Service Electric and Gas Co.
Tenafly, Borough of	The Penetone Corporation
Union, Township of	Carpenter Steel Company
Washington, Borough of	Northern Dyeing Corporation
Wayne, Township of	Rare Earths, Inc.
Westwood, Borough of	Wright Metalcoaters

SANITARY SURVEY OF SEWAGE TREATMENT FACILITIES AND SURF-BATHING WATERS ADJACENT TO MUNICIPALITIES IN RARITAN AND SANDY HOOK BAYS AND OCEAN WATERS ALONG THE NORTH JERSEY ATLANTIC COAST

During June 1948 a comprehensive sanitary survey was made at municipalities within the North Jersey coast recreational area, in order to establish and report upon the bacteriological quality of bathing waters adjacent to this area. Representatives of this Department investigated the operation of the sewage treatment plants and sewer outfalls provided by these municipalities and collected samples of bathing waters adjacent to established beaches within the area in order to determine the bacteriological quality of the waters of Raritan and Sandy Hook Bays and the North Jersey Atlantic Coast used for recreational purposes. There follows a tabulation containing the bacteriological results derived from the examination of the samples. It will be noted that with certain minor exceptions the area in Raritan Bay extending from Laurence Harbor to Keansburg is classified as unsatisfactory, based upon the **bacteriological standards** accepted by this Department for comparative purposes in measuring the bacteriological quality of surf-bathing waters.

The State of New Jersey relies upon the recommendations of the Joint Committee on Bathing Places of the Conference of State Sanitary Engineers in classifying bathing waters. These provide, in part, as follows:

"Waters showing a concentration of most probable numbers of coliform organisms" (organisms tested for and used as an index of pollution) "of less than 1000 per 100 ml. are considered in most such areas" (densely populated) "to be fairly acceptable for bathing unless the sanitary survey discloses immediate dangers from human sewage pollution; however, it must be admitted that bathing beaches where the content of coliform organisms runs as high as . . . 2400 per 100 ml. on the basis of most probable numbers, or sometimes even higher, have been used without reported evidence of illness, and this limit . . . is still employed as the criterion of acceptability in some states. The trend is, of course, to reduce bacteria counts where possible by sewage treatment if human sewage is a threat, and the attainment of reasonable progress in this direction is to be hoped for. Allowances must in all cases be made and distinction drawn as to pollution introduced by large bathing loads at outdoor bathing places and pollution derived from sewer discharges or other sources."

In accounting for the pollution evidenced in the Raritan Bay waters it must be noted that there is considerable discharge of polluting material within the metropolitan New York and New Jersey areas. In addition to the discharge of raw sewage by New York City, it is concluded that a major portion of the pollution contributed to the Raritan Bay waters is from the waters of the Arthur Kill, Hudson River and the Narrows. The minor sources of pollution may be from the Raritan River and isolated sources in that area extending from Laurence Harbor to Keansburg and adjacent municipalities.

The State Department of Health adopted a resolution on January 15, 1929, requiring that certain North Jersey seashore municipalities discharging, for good and valid reasons, their domestic sewage into the waters of the Atlantic Ocean, must and shall provide the minimum degree of sewage treatment comprising the methods of sedimentation and chlorination, the settled and disinfected effluent to be discharged into the waters of the Atlantic Ocean through outfall pipes 1,000 feet or more in length. All municipalities along the North Jersey Atlantic Coast having sewer systems have complied with these requirements. With the inception of this provision in 1929 the bacteriological quality of the surf bathing waters along the Atlantic Coast has with a few exceptions steadily improved. The same cannot be said for sewage treatment plants serving municipalities within the Raritan Bay and Sandy Hook Bay areas. The Borough of Keansburg does not provide for satisfactory treatment of its sewage, in accordance with the departmental requirements. It is believed that when it does comply, that a definite improvement will be noted within the Raritan Bay area.

SURF SAMPLES—LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JUNE 21 AND 22, 1948

<i>Municipality</i>	<i>Location</i>	<i>Tide</i>	<i>Organisms of the Coliform Group</i>	<i>Organisms of the Coliform Group Most Probable Number (M.P.N.) per 100 ml.</i>
Laurence Harbor	Opposite restaurant	Flooding	Pres. 100 in 1 c.c.	16,000+
Laurence Harbor	Opposite restaurant	Ebbing	Pres. 20 in 1 c.c.	3,500
Madison Twp.	Seidler's Beach opposite restaurant	Flooding	Pres. 60 in 1 c.c.	9,200
Madison Twp.	Seidler's Beach opposite restaurant	Ebbing	Pres. 20 in 1 c.c.	3,500
Keyport	Main beach at dock	Flooding	Pres. 20 in 1 c.c.	3,500
Keyport	Main beach at dock	Ebbing	Pres. 100 in 1 c.c.	16,000+
Union Beach	Pine St.	Flooding	Pres. 80 in 1 c.c.	16,000
Union Beach	Pine St.	Ebbing	Pres. 20 in 1 c.c.	3,500
Keansburg	Laurel Ave.	Flooding	Pres. 40 in 1 c.c.	5,400
Keansburg	Laurel Ave.	Ebbing	Pres. 40 in 1 c.c.	5,400
Keansburg	Carr Ave.	Flooding	Pres. 40 in 1 c.c.	5,400
Keansburg	Carr Ave.	Ebbing	Pres. 20 in 1 c.c.	3,500
Keansburg	Bayview Ave.	Flooding	Pres. 80 in 1 c.c.	16,000
Keansburg	Bayview Ave.	Ebbing	Pres. 20 in 1 c.c.	3,500
Keansburg	Lawrence Ave.	Flooding	Pres. 10 in 1 c.c.	2,400
Keansburg	Lawrence Ave.	Ebbing	Pres. 5 in 50 c.c.	240
			Pres. 5 in 5 c.c.	
Ideal Beach	Brant Ave.	Flooding	Pres. 5 in 50 c.c.	1,100
			Pres. 8 in 1 c.c.	
Ideal Beach	Brant Ave.	Ebbing	Pres. 4 in 1 c.c.	540
Leonardo	Concord Ave.	Flooding	Pres. 5 in 50 c.c.	920
			Pres. 6 in 1 c.c.	
Leonardo	Concord Ave.	Ebbing	Pres. 5 in 5 c.c.	240
Atlantic Highlands	Free Beach	Flooding	Pres. 5 in 50 c.c.	2,400
			Pres. 10 in 1 c.c.	
Atlantic Highlands	Free Beach	Ebbing	Pres. 5 in 50 c.c.	240
			Pres. 5 in 5 c.c.	
Atlantic Highlands	Atlantic Beach	Flooding	Pres. 5 in 50 c.c.	540
			Pres. 4 in 1 c.c.	
Atlantic Highlands	Atlantic Beach	Ebbing	Pres. 8 in 1 c.c.	1,600
Atlantic Highlands	Richards Beach	Flooding	Pres. 5 in 50 c.c.	640
			Pres. 6 in 1 c.c.	

SURF SAMPLES—LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JUNE 21 AND 22, 1948—(Continued)

<i>Municipality</i>	<i>Location</i>	<i>Tide</i>	<i>Organisms of the Coliform Group</i>	<i>Organisms of the Coliform Group Most Probable Number (M.P.N.) per 100 ml.</i>
Atlantic Highlands	Richards Beach	Ebbing	Pres. 6 in 1 c.c.	920
Highlands	Atlantic Ave.	Flooding	Pres. 5 in 50 c.c.	1,700
			Pres. 10 in 1 c.c.	
Highlands	Atlantic Ave.	Ebbing	Pres. 5 in 5 c.c.	240
Highlands	Miller St.	Flooding	Pres. 5 in 50 c.c.	1,100
			Pres. 8 in 1 c.c.	
Highlands	Miller St.	Ebbing	Pres. 5 in 5 c.c.	170
Sea Bright	Sandless Beach	Flooding	Pres. 5 in 50 c.c.	23
			Absent in 5 c.c.	
Sea Bright	Sandless Beach	Ebbing	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Sea Bright	Beach Club	Flooding	Pres. 5 in 50 c.c.	170
			Pres. 5 in 5 c.c.	
Sea Bright	Beach Club	Ebbing	Pres. 1 in 50 c.c.	2
			Absent in 5 c.c.	
Sea Bright	Peninsula House	Flooding	Pres. 5 in 50 c.c.	49
			Pres. 2 in 5 c.c.	
Sea Bright	Peninsula House	Ebbing	Pres. 1 in 50 c.c.	2
			Absent in 5 c.c.	
North Long Branch	Shipkins Beach	Flooding	Pres. 5 in 50 c.c.	130
			Pres. 4 in 5 c.c.	
North Long Branch	Shipkins Beach	Ebbing	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Long Branch	Madison Ave.	Flooding	Pres. 5 in 50 c.c.	540
			Pres. 4 in 1 c.c.	
Long Branch	Madison Ave.	Ebbing	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Long Branch	Chelsea Baths	Flooding	Pres. 60 in 1 c.c.	9,200
Long Branch	Chelsea Baths	Ebbing	Pres. 3 in 50 c.c.	7.8
			Absent in 5 c.c.	

Long Branch	Atlantic Baths opposite New Atlantic	Pres. 5 in 50 c.c.	130
	Hotel	Flooding	Pres. 4 in 5 c.c.
			Pres. 5 in 50 c.c.
			Pres. 3 in 50 c.c.
Long Branch	Atlantic Baths opposite New Atlantic	Pres. 3 in 50 c.c.	11
	Hotel	Ebbing	Pres. 1 in 5 c.c.
			Pres. 5 in 50 c.c.
			Pres. 2 in 5 c.c.
Elberon	Garfield Terrace	Flooding	Pres. 5 in 50 c.c.
			Pres. 5 in 5 c.c.
Elberon	Garfield Terrace	Ebbing	Pres. 4 in 50 c.c.
			Absent in 5 c.c.
Deal	Phillips Ave.	Flooding	Pres. 5 in 50 c.c.
			Pres. 10 in 1 c.c.
Deal	Phillips Ave.	Ebbing	Pres. 5 in 50 c.c.
			Pres. 3 in 5 c.c.
Deal	Marine Place	Flooding	Pres. 5 in 50 c.c.
			Absent in 5 c.c.
Deal	Marine Place	Ebbing	Pres. 5 in 50 c.c.
			Absent in 5 c.c.
Allenhurst	Corlies Ave.	Flooding	Pres. 5 in 50 c.c.
			Pres. 3 in 5 c.c.
Allenhurst	Corlies Ave.	Ebbing	Pres. 5 in 50 c.c.
			Pres. 1 in 5 c.c.
Asbury Park	8th Ave.	Flooding	Pres. 20 in 1 c.c.
Asbury Park	8th Ave.	Ebbing	Pres. 10 in 1 c.c.
Asbury Park	3rd Ave.	Flooding	Pres. 5 in 50 c.c.
			Pres. 10 in 1 c.c.
Asbury Park	3rd Ave.	Ebbing	Pres. 5 in 50 c.c.
			Pres. 2 in 5 c.c.
Asbury Park	Wesley Lake Bathing Club	Flooding	Pres. 20 in 1 c.c.
Asbury Park	Wesley Lake Bathing Club	Ebbing	Pres. 5 in 50 c.c.
			Pres. 5 in 5 c.c.
Ocean Grove	North Pavilion	Flooding	Pres. 5 in 50 c.c.
			Pres. 10 in 1 c.c.
Ocean Grove	North Pavilion	Ebbing	Pres. 5 in 50 c.c.
			Absent in 5 c.c.
Ocean Grove	South Pavilion	Flooding	Pres. 20 in 1 c.c.
Ocean Grove	South Pavilion	Ebbing	Pres. 5 in 50 c.c.
			Pres. 2 in 5 c.c.

SURF SAMPLES—I, LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JUNE 21 AND 22, 1948—(Continued)

<i>Municipality</i>	<i>Location</i>	<i>Tide</i>	<i>Organisms of the Coliform Group</i>	<i>Organisms of the Coliform Group Most Probable Number (M.P.N.) per 100 ml.</i>
Avon	Norwood Ave.	Flooding	Pres. 5 in 50 c.c. Pres. 3 in 5 c.c.	79
Avon	Norwood Ave.	Ebbing	Pres. 5 in 50 c.c. Pres. 1 in 5 c.c.	33
Avon	Opposite outfall	Flooding	Pres. 2 in 1 c.c.	350
Avon	Opposite outfall	Ebbing	Pres. 3 in 50 c.c. Pres. 1 in 5 c.c.	11
Belmar	Second Ave.	Flooding	Pres. 5 in 50 c.c. Pres. 2 in 5 c.c.	49
Belmar	Second Ave.	Ebbing	Pres. 5 in 50 c.c. Absent in 5 c.c.	23
Belmar	Fifth Ave.	Flooding	Pres. 5 in 50 c.c. Pres. 3 in 5 c.c.	79
Belmar	Fifth Ave.	Ebbing	Pres. 5 in 50 c.c. Pres. 1 in 5 c.c.	33
Belmar	South of outfall	Flooding	Pres. 2 in 1 c.c.	350
Belmar	South of outfall	Ebbing	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Belmar	Sixteenth Ave.	Flooding	Pres. 5 in 50 c.c. Pres. 3 in 5 c.c.	79
Belmar	Sixteenth Ave.	Ebbing	Pres. 4 in 50 c.c. Absent in 5 c.c.	13
Spring Lake	Ludlow Ave.	Flooding	Pres. 5 in 50 c.c. Pres. 5 in 5 c.c.	240
Spring Lake	Ludlow Ave.	Ebbing	Pres. 4 in 50 c.c. Pres. 1 in 5 c.c.	17
Spring Lake	Morris Ave.	Flooding	Pres. 5 in 50 c.c. Absent in 5 c.c.	23
Spring Lake	Morris Ave.	Ebbing	Pres. 1 in 50 c.c. Pres. 1 in 5 c.c.	4

Spring Lake	South of pavilion	Flooding	Pres. 5 in 50 c.c.	23
			Absent in 5 c.c.	
Spring Lake	South of pavilion	Ebbing	Pres. 4 in 50 c.c.	13
			Absent in 5 c.c.	
Spring Lake	Pa. Ave.	Flooding	Pres. 5 in 50 c.c.	23
			Absent in 5 c.c.	
Spring Lake	Pa. Ave.	Ebbing	Pres. 5 in 50 c.c.	49
			Pres. 2 in 5 c.c.	
Sea Girt	Beacon Ave.	Flooding	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Sea Girt	Beacon Ave.	Ebbing	Pres. 4 in 50 c.c.	13
			Absent in 5 c.c.	
Sea Girt	Stockton Ave.	Flooding	Pres. 5 in 50 c.c.	130
			Pres. 4 in 5 c.c.	
Sea Girt	Stockton Ave.	Ebbing	Pres. 4 in 50 c.c.	13
			Absent in 5 c.c.	
Manasquan	Main St.	Flooding	Pres. 5 in 50 c.c.	33
Manasquan	Main St.	Ebbing	Pres. 2 in 50 c.c.	4.5
Manasquan	100 yds. north of inlet	Flooding	Pres. 5 in 50 c.c.	79
			Pres. 3 in 5 c.c.	
Manasquan	100 yds. north of inlet	Ebbing	Pres. 4 in 50 c.c.	13
			Absent in 5 c.c.	
Point Pleasant	Water St.	Flooding	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Point Pleasant	Water St.	Ebbing	Pres. 5 in 50 c.c.	79
			Pres. 3 in 5 c.c.	
Point Pleasant	Central Ave.	Flooding	Pres. 5 in 50 c.c.	79
			Pres. 3 in 5 c.c.	
Point Pleasant	Central Ave.	Ebbing	Pres. 5 in 50 c.c.	130
			Pres. 4 in 5 c.c.	
Point Pleasant	Atlantic Ave.	Flooding	Pres. 5 in 50 c.c.	49
			Pres. 2 in 5 c.c.	
Point Pleasant	Atlantic Ave.	Ebbing	Pres. 1 in 50 c.c.	2
			Absent in 5 c.c.	
Bay Head	Beacon Hotel	Flooding	Pres. 5 in 50 c.c.	33
			Pres. 1 in 5 c.c.	
Bay Head	Beacon Hotel	Ebbing	Absent in 50 c.c.	0
Bay Head	Osborne Ave.	Flooding	Pres. 4 in 50 c.c.	17
			Pres. 1 in 5 c.c.	
Bay Head	Osborne Ave.	Ebbing	Absent in 50 c.c.	0

SURF SAMPLES—LAURENCE HARBOR TO BEACH HAVEN BACTERIOLOGICAL DATA FROM SAMPLES COLLECTED ON
JUNE 21 AND 22, 1948—(Continued)

<i>Municipality</i>	<i>Location</i>	<i>Tide</i>	<i>Organisms of the Coliform Group</i>	<i>Organisms of the Coliform Group Most Probable Number (M.P.N.) per 100 ml.</i>
Bay Head	200 feet south of Bridge Ave.	Flooding	Pres. 2 in 50 c.c. Pres. 1 in 5 c.c.	6.8
Bay Head	200 feet south of Bridge Ave.	Ebbing	Pres. 2 in 50 c.c. Pres. 1 in 5 c.c.	6.8
Mantoloking	Williams Place	Flooding	Pres. 4 in 50 c.c. Pres. 1 in 5 c.c.	17
Mantoloking	Williams Place	Ebbing	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Mantoloking	Lyman Place	Flooding	Pres. 4 in 50 c.c. Absent in 5 c.c.	13
Mantoloking	Lyman Place	Ebbing	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Lavallette	President Ave.	Flooding	Pres. 3 in 50 c.c. Absent in 5 c.c.	7.8
Lavallette	President Ave.	Ebbing	Absent in 50 c.c. Absent in 5 c.c.	0
Seaside Heights	Kearney Ave.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0
Seaside Heights	Kearney Ave.	Ebbing	Absent in 50 c.c. Absent in 5 c.c.	0
Seaside Heights	Old Casino, Sherman Ave.	Flooding	Pres. 1 in 55 c.c.	1.8
Seaside Heights	Old Casino, Sherman Ave.	Ebbing	Pres. 4 in 50 c.c. Absent in 5 c.c.	13
Seaside Park	Decatur Ave.	Flooding	Pres. 3 in 50 c.c. Absent in 5 c.c.	7.8
Seaside Park	Decatur Ave.	Ebbing	Pres. 3 in 50 c.c. Absent in 5 c.c.	7.8
Seaside Park	Below Cottage Group	Flooding	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Seaside Park	Below Cottage Group	Ebbing	Pres. 3 in 50 c.c. Pres. 2 in 5 c.c.	14
Barnegat City	8th St.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0

Barnegat City	8th St.	Ebbing	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Harvey Cedars	78th St.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0
Harvey Cedars	78th St.	Ebbing	Absent in 50 c.c. Absent in 5 c.c.	0
Surf City	14th St.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0
Surf City	14th St.	Ebbing	Absent in 50 c.c. Absent in 5 c.c.	0
Ship Bottom-Beach Arlington..	20th St.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0
Ship Bottom-Beach Arlington..	20th St.	Ebbing	Pres. 1 in 50 c.c. Pres. 1 in 5 c.c.	4
Brant Beach	38th St.	Flooding	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Brant Beach	38th St.	Ebbing	Pres. 3 in 50 c.c. Absent in 5 c.c.	7.8
Beach Haven Crest	Hobart Ave.	Flooding	Pres. 3 in 50 c.c. Absent in 5 c.c.	7.8
Beach Haven Crest	Hobart Ave.	Ebbing	Pres. 1 in 50 c.c. Pres. 1 in 5 c.c.	4
Beach Haven Park	Kansas Ave.	Flooding	Pres. 2 in 50 c.c. Pres. 1 in 5 c.c.	6.8
Beach Haven Park	Kansas Ave.	Ebbing	Pres. 2 in 50 c.c. Absent in 5 c.c.	4.5
Beach Haven Terrace	Maryland Ave.	Flooding	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Beach Haven Terrace	Maryland Ave.	Ebbing	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
Spray Beach	23rd St.	Flooding	Pres. 2 in 50 c.c. Absent in 5 c.c.	4.5
Spray Beach	23rd St.	Ebbing	Absent in 50 c.c. Absent in 5 c.c.	0
North Beach Haven	11th St.	Flooding	Pres. 1 in 50 c.c. Absent in 5 c.c.	2
North Beach Haven	11th St.	Ebbing	Pres. 2 in 50 c.c. Absent in 5 c.c.	4.5
Beach Haven	Center St.	Flooding	Absent in 50 c.c. Absent in 5 c.c.	0
Beach Haven	Center St.	Ebbing	Pres. 1 in 50 c.c. Pres. 1 in 5 c.c.	4

THE DISPOSAL OF GROUND GARBAGE IN SEWERAGE SYSTEMS

About 15 years ago some sanitary engineering and public health authorities became actively interested in the practicability of disposing household garbage through domestic plumbing systems, thence into public sanitary sewer systems. After considerable research work had been done, some manufacturers proceeded to promote the household garbage grinder. By 1941, when the United States entered World War II, the household garbage grinder was being widely advertised as a desirable and practical household appliance. The restrictions upon the domestic economy produced by the war required the suspension of the manufacturing of this equipment.

During the past two years the promoters of the household garbage grinders have become active again. Interest has grown to such an extent that at the present time there are eight or ten manufacturers of household garbage grinders. Active competition has entered the field and vigorous sales promotion campaigns are being made. It became apparent to this Bureau that some information should be released by it on the subject of the disposal of ground garbage in sewerage systems. An article was prepared by members of the staff which will appear in the July, 1948, issue of *Public Health News*. The article was read at a meeting of the South Jersey Sewage Operators' Association and generated a general widespread interest in the subject throughout the State. Summarized, the article states:

The Bureau is of the opinion that the streams of this State should not be burdened at this time with an additional pollution load produced by the disposal of ground garbage in sewer lines. The present problem of generally overloaded and inadequate sewage treatment plants in this State would be intensified greatly by the addition of ground garbage to the sewers. It is well established that ground garbage can be treated with domestic sewage in some of the standard types of sewage treatment plants. Sanitary engineering has the "know-how" to do the job. The public should be told that it is going to cost a lot of money to build, maintain, and operate treatment plants for the disposal of ground garbage.

The purpose here is not to oppose or promote the use of garbage grinders, but to bring to light the fact that a real problem is involved. Municipalities owning sewage treatment plants now overloaded and approaching their capacities must anticipate an additional investment in plant expansion if garbage grinders are to be permitted. Provision likewise must be made in new plants if ground garbage is to be treated with sewage.

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Any municipality in New Jersey desiring to prohibit household garbage grinders may do so under R. S. 40:63-7 which provides that the governing body of a municipality may, by ordinance, fix and prescribe such conditions and restrictions as to connection with and use of sewers and drains in the municipality, as it may deem proper and necessary.

The following letter was addressed on June 24, 1948, to the Department of Public Works of Greenwich, Connecticut, by the Interstate Sanitation Commission :

"Referring to your inquiry of May 3, regarding the effect of garbage grinders on sewage treatment plants, the subject was discussed by the members of the Interstate Sanitation Commission at their last meeting.

"The Interstate Sanitation Commission will look with disfavor on any increase of the pollution load on the waters of the Interstate Sanitation District.

"The Commission urges that no steps be permitted that may ultimately result in a deterioration of the sewage treatment plant effluent, unless accompanied by both engineering and financial provisions to adapt the treatment to the increased load and thereby avoid any increase of the pollution load on the waters of the Interstate Sanitation Districts."

Report of Bureau of Food and Drugs

July 1, 1947—June 30, 1948

By WALTER W. SCOFIELD, *Chief*

The Bureau of Food and Drugs continued the enforcement of existing laws governing the handling, preparation, storage, distribution and transportation of foods and drugs under sanitary conditions and of laws and regulations designed to prevent the adulteration and misbranding of foods, drugs, devices and cosmetics. In addition, enforcement of a regulation prohibiting the re-use of textile bags as flour containers was delegated to the Bureau.

An act of the Legislature of 1948 defined the drug "amidone" as a narcotic drug and regulated the handling and distribution of the product in the same manner as other narcotic drugs. During the same period, legislation was passed repealing the prohibition on the sale of colored oleomargarine in the State of New Jersey.

Throughout this period, the Bureau of Food and Drugs was confronted with difficult problems in connection with attempts to produce, distribute and sell adulterated or misbranded foods caused by high prices of certain foods and/or shortage of certain foods. During the annual milk shortage in New Jersey in the late summer and early fall, a large number of milk samples were collected and it was found that, in a number of cases, milk had been adulterated by the addition of water. Representative samples of butter were also collected and, in several instances, the butter was found to contain an excessive quantity of moisture with consequent deficiency of butterfat. No cases of substitution of colored oleomargarine for butter were uncovered during this period. The price of meats climbed to a new high and, as a result, there has been a continued demand on the part of consumers for those meat products which are generally sold at lower prices. Large numbers of hamburger steak and sausage samples were collected by agents of this Bureau and reports from our laboratory prove that a high percentage of the samples collected were adulterated by the addition of excessive amounts of fat.

During the routine inspection of all types of food establishments, representatives of the Bureau made careful investigations regarding methods of

storage of raw ingredients used in the manufacturing processes and also investigated the storage of finished products on the premises. In several instances large lots of foods found contaminated by insects or rodents were embargoed and were destroyed or converted into animal feed under the supervision of agents of this Bureau. A special effort was made to improve storage conditions of cereal and grain products, especially in bakeries and similar food establishments.

As in the preceding year the Bureau received a number of requests from drug and cosmetic manufacturers in New Jersey for certificates of approval covering the labeling and manufacturing conditions of products designed for export to certain South and Central American countries. Careful investigations were made in all cases where requests were received and where conditions were found satisfactory, certificates of approval have been issued. A number of certificates were refused where conditions were found unsatisfactory.

The application of one food manufacturer desiring to export foods to a South American country was denied after an inspection of the plant was made.

NEW LEGISLATION AND REGULATIONS

Regulation Governing the Use of Textile Bags as Containers for Flour

Acting under authority contained in section 24:2-1 of the Revised Statutes of New Jersey, the following regulation requiring the use of new textile bags as containers for flour was issued effective January 1, 1948:

"No person, firm, or corporation shall sell, offer or expose for sale, distribute or have in possession with intent to sell or to distribute or to manufacture into food for human consumption in this State, any flour in textile bags that have been used previously."

A survey was made of bakeries and other establishments in which flour was stored in New Jersey and it was found there was general compliance with the above regulation.

An Act to amend the Uniform Narcotic Drug Law and amending section 24:18-2 of the Revised Statutes.

The "new drug," "amidone," identified chemically as 4, 4-Diphenyl-6-Dimethylamino-Heptanone-3, or any salt or form thereof by whatever trade name identified, was found to have narcotic properties and was classified as a narcotic drug by the Bureau of Internal Revenue of the United States Treasury Department. Acting upon the request of the Federal Bureau of Internal Revenue, the Department requested the Legislature to amend the State Uniform Narcotic Law to include in the definitions of this law the indicated

chemical identification for "amidone." As a result of this request, the Legislature passed Senate Bill 249 and the Governor approved this amendment which went into effect immediately.

REPEAL OF COLORED OLEOMARGARINE BAN

For a great many years the citizens of New Jersey were unjustly deprived of the right to purchase oleomargarine which had been artificially colored, even though the sale of butter containing artificial color was permitted by law. There seemed to be no justification for this type of discrimination against a wholesome food product. Consumer groups, housewives and women's organizations exerted great pressure upon the Governor and legislators to repeal the above legislation because a great many people desired to use yellow oleomargarine in place of butter. One of the arguments presented was that uncolored oleomargarine did not appear as palatable as yellow margarine and housewives found it difficult to color the product manually. The extremely high price of butter also accounted for the agitation for repeal of the prohibition on the sale of colored oleomargarine. As a result, legislation was introduced and approved removing the prohibition against the sale of colored oleomargarine.

DAIRY FARM AND MILK PLANT INSPECTION

Title 24, Chapter 10, Revised Statutes of New Jersey, provides for a licensing system, governs the production, handling and distribution of milk, cream and milk products in this State and places upon the State Department of Health the responsibility of assuring the fitness of these articles of food.

P. L. 1938, c. 195, regulates the production, collection, storage, transportation and sale of goats' milk in New Jersey.

Chapter XI of the Sanitary Code, enacted by the State Department of Health on November 10, 1920, and amended on February 3, 1931, outlines the regulations governing the production, distribution and sale of certified milk in New Jersey.

The problem of securing safe milk and milk products for the inhabitants of this State is one which involves the health, happiness and well-being, not only of millions of consumers, but of the operators of milk plants and dairies. The statutes provide for a permit system to control dealers in these articles of food and set up minimum standards covering production and distribution.

Records on file indicate that approximately 97 per cent of the milk and cream offered for sale in New Jersey is pasteurized. Our agents are constantly checking the pasteurization efficiency of the plants to make certain that the milk is properly pasteurized.

During the annual milk shortage in New Jersey in the late summer and early fall, a large number of milk samples were collected and it was found that, in a number of cases, milk had been adulterated by the addition of water. Wherever adulterated samples of milk were collected, hearings were held and, in some instances, proceedings were instituted for the collection of penalties.

Due to insufficient appropriations for travel expenses during this year, inspections of dairy farms and milk plants located outside of New Jersey supplying milk or cream to New Jersey were discontinued during the first half of the year. During the second half of the year it was possible to cause inspections to be made of milk supplies located in the States of New York, Pennsylvania, Delaware and Maryland by agents of this Department. However, lack of funds made it impossible to cause inspections of milk plants and dairy farms supplying cream for manufacture into ice cream located in the States of Wisconsin, Michigan and Indiana during the fiscal year 1947-1948.

During the year, applications were received for permits in states other than New Jersey covering new supplies of milk and cream. The United States Public Health Service offered to certify to inspections of supplies made by officials of the states in which the supplies were located. Requests were made for certifications covering the new applications and in several cases permits were issued or denied based upon these reports.

During this period, Governor Alfred E. Driscoll of New Jersey, Governor Thomas E. Dewey of New York and the late Governor McConaughy of Connecticut, conferred with the object of finding some practical way of exchanging information between the official milk control agencies of the States of Vermont, Connecticut, New York, New Jersey and Pennsylvania covering the sanitary conditions of dairy farms and milk plants. As a result of the conference between the governors, the milk control officials of these states were requested to meet in the offices of the State Department of Health of New York in New York City for the purpose of establishing an interstate commission for reciprocal acceptance of approvals of dairy farms and milk plants. It was agreed that each state should provide at least one experienced milk sanitarian to spend full time, if necessary, in making joint surveys of interstate sources of milk supplies. Under this agreement, the states and cities in this area could and should discontinue routine inspections outside their borders even though they reserve the right to make check inspections of milk sources in other states. The states and cities could then accept with confidence the certification of the state in which the milk supplies are located.

This committee also recommended that each state study its own problem and take such steps by legislation, if necessary, to substitute uniform regulations affecting the inspection of dairy farms and milk plants. This committee also considered at length the specific requirements governing the production of milk on dairy farms and the handling of milk in milk plants, and agreed

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upon basic requirements similar to those contained in a code known as the "Northeastern States Regulations," agreed upon in conferences held in 1944. There seems to be no obstacle in the way of the State Department of Health of New Jersey participating in this interstate milk commission excepting that minor changes should be made in the laws of New Jersey authorizing this State to participate in the work of such a commission.

Until the definite organization of the proposed interstate milk commission, comprising the States of Vermont, Connecticut, New York, New Jersey and Pennsylvania, is completed and is operating, this Department has advised the United States Public Health Service that it desires to receive information regarding milk supplies located in the above-mentioned states. This Bureau will continue to request information from the United States Public Health Service regarding sanitary conditions of milk and cream supplies not covered by the proposed interstate milk commission.

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	6	98
Maryland	19	235
New Jersey	1,818	4,524
New York	52	953
Pennsylvania	78	1,574
	<hr/> 1,973	<hr/> 7,384

In examining the farmers' milk as delivered to milk plants, 5,852 sediment tests and 10,041 Breed smears were taken.

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

<i>State</i>	<i>Number of Inspections of Milk Plants</i>
Delaware	1
New York	3
Pennsylvania	3
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SANITATION OF BAKERIES AND PUBLIC EATING PLACES

Agents of the Bureau of Food and Drugs continued with routine sanitary inspections of all bakeries in the State and public eating establishments located in cities, towns and boroughs. Besides investigating sanitary conditions within these food establishments, considerable attention was paid to the methods of storage of raw ingredients used in the manufacture of foods and to the storage of finished products.

During the year, 2,095 inspections have been made of bakeries and 2,310 inspections have been made of public eating establishments. Letters of advice and/or warnings in those cases in which violations of the laws were reported were forwarded to the operators by the Bureau. Reinspections have been made where warning letters 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 State laws. In certain cases, prosecutions were ordered after repeated warnings had been given.

Agents of the Bureau continued to educate operators of food establishments in an effort to reduce insect and rodent infestation within their plants. In several instances large lots of food were found to be grossly contaminated by insects, rodents or foreign material. They were embargoed and either destroyed or converted into animal feed under the supervision of agents of this Bureau. Quantities of foods which had deteriorated and spoiled were also seized and destroyed by agents of the Bureau.

Enforcement of the Flour and Bread Enrichment Act, enacted into law on July 1, 1946, was also continued. 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. Regulations adopted under powers granted by the act were also enforced by agents of the Bureau. Compliance with the law and regulations governing the enrichment of white flour and white bread and rolls was excellent throughout the State.

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

<i>Article</i>	<i>Amount</i>
Baking ingredients	603 pounds
Bologna casings	2,391 pounds
Bread crumbs	785 pounds
Candy	2,860 pounds
Canned goods	448 cans
Cereal products	1,416 pounds
Dried fruits and vegetables	992 pounds
Eggs (frozen)	30 pounds
Fat	35 pounds
Flavors	10 pounds
Flour	80,639 pounds
Fresh fruits	44 pounds
Grain	75 pounds
Ice cream	38 quarts
Meats	64 pounds
Milk	80 quarts
Milk (powdered)	1,325 pounds
Miscellaneous	167 pounds
Miscellaneous	21 jars
Salt	15 pounds
Spices	900 pounds
Sugar	20 pounds

SLAUGHTERHOUSE AND MEAT INSPECTION

During the year, 635 inspections of 166 slaughterhouses were made by the veterinarian assigned to this work, and the animals and dressed meats found there at the time examined.

In several instances unsatisfactory practices were observed in the handling and storage of meats and meat products. Emphasis has also been placed upon the proper disposal of solid and liquid wastes resulting from the slaughtering operations. In several instances operators were given orders to cease operations and abate nuisances caused by improper disposal of the wastes before resuming operations.

Sausages, bolognas, frankfurters, etc., are prepared in establishments not licensed by the State Department of Health. However, these plants are inspected periodically by the veterinarian of the Department for sanitation of the establishments and for the methods used in the preparation of the meat products. The meat may 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.

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) cooked ground meat products which are to be consumed as sold, should be heated in the meat processing plant to temperatures sufficiently high to destroy micro-organisms and to allow an ample margin of safety above the theoretical temperatures required for this destruction; and (7) 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.

Thirty-five inspections of these plants were made during the year.

MEAT INSPECTIONS

	<i>Passed for Food</i>		<i>Condemned</i>	
	<i>Carcasses</i>	<i>Pounds</i>	<i>Carcasses</i>	<i>Pounds</i>
Beef	326	4,300	2	..
Calves	36	..	..	..
Lamb .....	..	..	..	55
Pork	257	8,050	..	45
Sheep	8	..	..	..

DRUGS

Many large firms manufacturing drugs and/or cosmetics have located in New Jersey during recent years. Many of these firms hope to export an appreciable amount of their products to Central and South American countries. Due to frauds and deceptive practices of a few unscrupulous manufacturers in past years who exported drugs and/or cosmetics which were grossly adulterated and/or misbranded, several of the countries have recently adopted

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stringent regulations governing the importation of these products into the countries. They are demanding certificates of approval from national, state or local health authorities indicating: (a) that the products intended for export comply with federal, state or local laws; (b) that these same products are freely sold in the country of origin; (c) that they do not differ in strength or purity from the products as sold in the country of origin; (d) that they are not adulterated or misbranded; and (e) that they are manufactured under sanitary conditions.

Manufacturers engaged in the exportation of these products applied to federal agencies for assistance in securing the necessary certificates of approval. However, federal agencies were unable to comply with these requests due to the lack of specific federal laws authorizing such action. A number of manufacturers located in New Jersey then applied to the Department of Health for such certificates. This Bureau made most careful investigations in all cases and where conditions were found satisfactory, certificates were issued.

It is our opinion that existing federal laws should be amended to authorize some federal agency to issue certificates of approval for the exportation of drugs to foreign countries requiring such certificates as such matters pertain to the business between the United States Government and foreign countries.

DANGEROUS DRUGS

A number of drugs have been classified as "dangerous drugs" by the Federal Food and Drug Administration and the New Jersey State Department of Health, due to their toxic or habit forming qualities. These preparations should not be sold except on the prescriptions of physicians and should not be used except under their supervision. Agents of this Bureau have been instructed to visit drug stores and request certain of these "dangerous drugs" without presenting prescriptions. In several cases, they were sold to the agents. In general, containers were not marked with adequate directions for use and/or with adequate warnings necessary for the protection of users, as required by laws of this State. Prosecutions have been instituted in a number of instances.

SHELLFISH CONTROL

During this period, the Shellfish Division carried out the usual investigations of all the waters used in connection with the production of shellfish. Sanitary inspections were made of establishments in which shellfish are handled. A large number of samples of water and shellfish were examined.

The Bureau received requests to make surveys of the waters of Sandy Hook Bay to ascertain whether or not it was possible to open certain areas which had been condemned because of pollution. It was represented that

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steps had been taken to prevent the contamination of these waters. After thorough examination, the results proved that it was not possible for the Department to open any of the condemned areas.

The attention of the Bureau was directed to additional pollution of certain waters in Atlantic County. Request was made that investigations be made of the areas in which certain portions had been condemned for use in the production and storage of shellfish. A thorough study was made of the sources of pollution and a large number of samples of water collected and examined for the purpose of determining whether or not changes should be made in the areas from which it was legal to take shellfish. The conclusion was drawn that no changes should be made in the open or condemned areas.

Agents of the Bureau have continued to investigate the marking of containers of shellfish offered for sale in this State, for the purpose of ascertaining whether or not such shellfish have been shipped from sources approved by the United States Public Health Service.

During the fiscal year 1956 water samples were examined in the laboratory of the boat "Inspector." The boat traveled 765 miles through the various waters of the State. In addition, there were examined in the three field laboratories 196 samples of shell oysters, 345 samples of shucked oysters, 4 samples of frozen oysters and clams, 292 samples of hard clams, 150 samples of soft clams, 26 samples of mussels and 504 samples of water.

The total number of samples subjected to bacteriological analyses were 1,460 water samples and 1,013 shellfish samples, making a grand total of 2,473 samples analyzed.

Inspections were completed as follows: shellfish shipping establishments 1,977; shellfish shucking establishments 140; miscellaneous 5. The grand total of inspections was 2,122.

The Department granted shipping certificates to 480 establishments.

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

	<i>Inspections</i>
Bakeries	2,095
Candy factories	73
Canning factories	158
Cold storage warehouses	432
Dairies	7,384
Dehydration plants	1
Drug manufacturing establishments	36
Drug stores	20
Egg-breaking establishments	31
Flavoring extract plants	2
Flour mills	4
Food markets	596
Food and meat markets	230
Food packing plants	26
Food warehouses	4
Ice cream manufacturing plants	538
Meat markets	53
Meat processing plants	35
Milk plants	1,973
Miscellaneous food plants	5
Non-alcoholic beverage establishments	294
Pickling plants	34
Poultry slaughterhouses	1
Restaurants and hotel kitchens	2,310
Shellfish shipping establishments	1,977
Shellfish shucking establishments	140
Shellfish inspections (miscellaneous)	5
Shrimp cocktail plants	5
Slaughterhouses	635
Soy sauce examinations	72
	<hr/>
	19,169

PENALTIES

During the year, \$2,529.25 was collected in penalties and costs for violations of the food and drug laws.

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FEES

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

615 Milk permits	@	\$25.00	\$15,375.00
17 Goat milk permits	@	10.00	170.00
1 Goat milk permit	@	7.50	7.50
1 Goat milk permit	@	5.81	5.81
27 Ice cream plant licenses	@	100.00	2,700.00
10 Ice cream plant licenses	@	50.00	500.00
14 Ice cream plant licenses	@	25.00	350.00
44 Ice cream plant licenses	@	10.00	440.00
576 Ice cream plant licenses	@	5.00	2,880.00
89 Cold storage licenses	@	10.00	890.00
7 Narcotic drug licenses	@	50.00	350.00
43 Narcotic drug licenses	@	5.00	215.00
<hr/>			
1,444			\$23,883.31

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

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Misbranded</i>	<i>Total</i>
Milk and cream	4,492	194	17	4,703
Foods	1,670	208	48	1,926
Drugs	115	17	54	186
	<hr/>	<hr/>	<hr/>	<hr/>
	6,277	419	119	6,815

COLD STORAGE OF FOODS

The Bureau of Food and Drugs enforces the law, rules and regulations governing cold storage and refrigerating warehouses. This statute requires all places artificially cooled to or below 45° F. and in which certain articles of food are placed and held for 30 days or more, to be licensed by the State Department of Health. This law limits the storage period to 12 months excepting in those cases in which permission is granted by the State Department of Health after the articles have been examined and found suitable for additional storage. Agents of the Department make routine inspections of these warehouses to determine sanitary conditions and to determine compliance with the marking requirements of the law.

During the year, unusually large quantities of poultry and fresh meats were held in the cold storage warehouses. A sizable proportion of these foods had been in storage several months at the beginning of this year. An unusual number of requests for permission to store these foods beyond the legal limit of 12 months were received. Each lot of food for which an extension of storage time was requested, was inspected by an agent of the Bureau to determine its suitability for additional storage.

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During the 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>
58 cartons	Chili Con Carne	3 months
1,195 boxes	Cheese	3 months
14,307 cans	Eggs—frozen whole	3 months
262 boxes	Fish—fresh	3 months
299 cartons	Lard	3 months
1,317 boxes	Poultry	3 months
22 barrels	Poultry	3 months
65 boxes	Cheese	2 months
7 barrels	Fat—beef	2 months
939 boxes	Fish—fresh	2 months
420 boxes	Meats—fresh	2 months
1,126 boxes	Poultry	2 months
60 barrels	Poultry	2 months
100 cartons	Fish	1 month
89 boxes	Poultry	1 month
12 barrels	Poultry	1 month

ANNUAL COLD STORAGE REPORT

1947 — 1948

Article	July 1947	August 1947	September 1947	October 1947	November 1947	December 1947	January 1948	February 1948	March 1948	April 1948	May 1948	June 1948
Eggs, cases, lbs.	477,235	390,446	276,033	156,679	78,423	16,719	28,699	50,979	126,045	243,261	374,862	435,476
Eggs, broken, lbs.	3,941,265	3,866,850	3,203,213	3,895,998	3,587,156	3,243,202	2,819,806	3,180,047	3,284,525	4,003,897	4,664,089	4,583,984
Cheese, lbs.	4,200,674	6,898,128	5,809,696	5,574,178	5,579,957	5,393,750	4,126,950	3,549,427	2,933,522	3,042,006	2,446,321	2,834,083
Butter, lbs.	3,877,172	4,648,851	3,866,267	3,116,258	1,713,743	634,847	316,800	279,492	228,252	188,681	542,667	4,050,231
Poultry, lbs.	9,144,139	8,794,117	7,318,791	10,902,373	11,246,272	11,876,524	13,600,963	9,828,491	7,677,698	6,706,210	5,145,552	4,550,622
Fresh meat, lbs.	21,396,624	20,169,408	16,365,644	13,439,712	17,557,072	25,055,697	25,635,107	29,100,106	27,839,430	24,922,222	20,745,872	15,362,534
Fresh fish, lbs.	5,451,506	4,727,229	4,211,430	5,195,835	5,536,602	4,935,003	4,052,482	3,305,459	2,509,204	2,838,729	3,582,642	3,976,243
Milk and milk products, lbs.	5,810,567	5,980,684	4,329,897	6,535,135	2,691,140	1,985,976	1,883,270	870,156	618,326	1,281,619	4,693,387	3,047,613
Edible fats and oils, lbs.	1,871,829	1,373,254	2,183,930	1,452,202	1,270,523	1,134,694	1,547,807	623,541	826,350	448,984	1,524,424	1,767,958
Game, lbs.	1,245	2,406	1,418	1,385	7,695	13,490	5,001	3,382	1,484	2,539	5,241	1,609
Miscellaneous, articles, packages	863,523	1,035,523	906,472	1,307,613	1,398,060	1,695,326	1,176,852	868,480	921,268	801,048	728,133	714,825

Report of the Division of Health Education

July 1, 1947—June 30, 1948

By RALPH T. FISHER, M. P. H., *Chief*

Created on July 1, 1945, the Division of Health Education has completed the third year of its activities, providing ever-increasing services to the Department and to health agencies in New Jersey. This three-year period has been marked by the development of a three-phase program: health information services, health education materials services and community health organization.

HEALTH INFORMATION SERVICES

Health information services of the Division included regular news releases, radio programs, publication of *Public Health News* and issuance of a house organ and regular specialized news letters. The news release service to the newspapers of New Jersey and adjoining metropolitan areas was widely used and provided a ready means of reaching the public with health information and news of Department activities. Weekly radio programs were conducted using the facilities of radio stations in various parts of the State.

Public Health News has been issued monthly since the July 1947 issue. A change of format in 1947 from single to double columns made possible a 40 per cent increase in the amount of copy per issue. Continuance of this format on a monthly basis provided a 280 per cent increase in amount of copy. The mailing list of 6,000 persons has been revised and provides a directed circulation to health and civic leaders and groups throughout the State, making *Public Health News* an effective medium for health promotion in New Jersey. *Office, Field and Lab*, a monthly house organ, served as a means of disseminating health information to Department employees.

HEALTH EDUCATION MATERIAL SERVICES

A large portion of the time and effort of the Health Education Division was used in providing specific health education material and related services to the Department and to health agencies. The Health Education Workshop,

equipped for production of silk screen posters, charts, illustrations, exhibits and other graphic materials, was staffed by a commercial artist and a technical assistant. Complete photographic and dark room equipment is available, but the staff does not include a photographer.

Four new display units were built in the Health Education Workshop and a large cancer exhibit featuring a transparent mirror was built commercially. Eighteen major exhibits and a number of smaller ones were held throughout the State and a week-long nutrition exhibit was shown at the State Fair.

The print shop, equipped with three multilith presses, power folder and power cutter and staffed by two operators, more than doubled its output over the previous year. Two Vari-typer machines and an Electro-matic writing machine were used in production of printed materials. In many cases art work was combined with Vari-typer composition in production of materials which were printed in the shop. Four new three-color posters were produced and ten new health education pamphlets. The largest job done was a 20-page plastic bound booklet in five colors with cover, "X-ray, the Picture of Health," produced for the Division of Tuberculosis Control. The monthly *Industrial Health Bulletin* was produced for the Division of Adult and Industrial Health. Departmental forms are being printed in increasing numbers, in addition to the health education materials. The print shop passed the three-million mark in the number of printed materials turned out before the close of the fiscal year.

Warehousing and shipping facilities for printed materials was provided for the Department and drugs were stored and distributed for the Division of Venereal Disease Control. In addition to this, some office supplies were also stored at the warehouse, as well as equipment for the Tuberculosis Control Division. This departmental use of personnel and facilities made operating economies possible.

With these resources, the Health Education Division provided a complete service in the production of visual aids to the Department. For example, pamphlets written by the editorial staff were composed on the Vari-typer, illustrated with art work, printed, stored and shipped—all these activities being performed by the Health Education Division.

The film library of the Department was augmented by the purchase of several new films. A catalog was issued, although the library is deficient in a number of fields and sufficient prints of most films are not available to meet requests. A small group of 12 professional films for staff use was also purchased. All film purchases are made by the departmental unit concerned in the specific field. A credit trailer was produced for addition to all Department films.

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COMMUNITY HEALTH ORGANIZATION SERVICES

During the three organizational years, the bulk of the work of the Health Education Division was concerned with development of two phases of the three-phase program—health information services and health education material services. These services were organized and developed to provide support and services for the third phase of the program—community health organization—which is the heart of the health education program planned for the State Department of Health when the Division of Health Education was established in 1945. At the end of the three-year period, the first two phases are well-established and developed to the point where they can support a state-wide community health organization work program.

This third phase has been developed on the state level by working with state health, welfare and civic 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.

Two examples of this service may be cited as typical:

Working with the New Jersey Health Officers' Association, the Bureau of Food and Drugs, the Bureau of Local Health Services and local health departments, the organization of food handler training courses was stimulated and several were held throughout the State.

Working with a county Tuberculosis League, a seven-week training course for community leaders in that county was planned and organized. The course was selected by the National Publicity Council as an outstanding example of community health organization techniques and an article about it was published in *Channels*, national publication of the Council.

Close working relationships with a large number of state-wide health, welfare and civic organizations was continued.

The Basic Public Health Course was conducted jointly with Rutgers University, and 33 students completed both terms. The course has been included in the eligibility requirements of the Board of Examiners for certain licenses. Eight short-term courses were offered in the fall and spring sessions, and 126 students completed courses.

The 37th Annual Conference of State and Local Health Officials of New Jersey was held in the War Memorial Building on March 12, 1948. The program of the conference, which was organized by the Health Education Division, follows:

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MORNING SESSION

Presiding: William H. MacDonald, Chief, Bureau of Local Health Services

- 10:30 A. M. *100 Years of Vital Statistics in New Jersey and Their Value to Health Departments*

Walter R. Scott, Chief, Bureau of Vital Statistics

- 11:30 A. M. *Looking Forward in Local Health Administration*

William H. MacDonald, Chief, Bureau of Local Health Services

Participants—The New Licensing Law—John Bacon, Chief, Bureau of Chemistry; Public Health Courses—R. T. Fisher, Chief, Division of Health Education; New Annual Report Forms—W. T. Eakins, Asst. Chief, Bureau of Local Health Services

AFTERNOON SESSION

Presiding: J. Lynn Mahaffey, M.D., State Director and Acting Commissioner of Health

- 2:00 P. M. *Greetings from the Public Health Council*

Dr. Walter G. Alexander

- 2:15 P. M. *Federal Funds for Health Centers*

Mr. Edward A. Mooney, Director, Hospital Survey and Construction Division, State Department of Institutions and Agencies

- 3:00 P. M. *The Role of the Community Health Council*

S. S. Lifson, Assistant Director, Community Organization, National Health Council

- 3:45 P. M. *Certification of Child Care Centers*

Mrs. Monema Kenyon, Asst. Early Childhood Education, State Department of Education

- 4:15 P. M. *Pending Health Legislation*

Dr. Marcus W. Newcomb, Chairman, Legislative Committee, New Jersey Public Health Council

The full development of the third and basic function of the Health Education Division—that of community health organization—awaits the development 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

July 1, 1947—June 30, 1948

By WILLIAM H. MACDONALD, *Chief*

During the fiscal year ending June 30, 1948, there were some changes in the personnel of the Bureau. Two Sanitarians resigned to accept municipal positions at higher salaries. Another Sanitarian was granted a temporary leave of absence to carry on post-graduate work at the University of Michigan. The position of Supervisor of District Health Officers left vacant by the retirement of Mr. C. K. Blanchard was not filled. Mr. John Zemlansky, District Health Officer, was transferred from the Camden County district to a new district to include Mercer County and part of Middlesex County, with headquarters at Trenton. Later in the year the plan designating Camden County as a state health district was abandoned, the office at Collingswood closed, and the county added to the territory to be covered from the district health office at Mount Holly, Burlington County.

The personnel of the Bureau at the end of the year included the Chief and Assistant Chief, eight District Health Officers, eight Sanitarians and twenty-three other employees.

There was continued the plan started in the previous year whereby nurses employed by the Board of Freeholders of Atlantic County and assigned communicable disease activities, worked from the district health office at Mays Landing under the direction of the District Health Officer and the Assistant Supervisor of Public Health Nurses assigned to that office. As of June 30, 1948, two county nurses were so engaged; two vacancies existed because of temporary leaves of absence. From this district health office there was supplied personnel, except the diagnostician, to operate the chest clinics at Mays Landing and Hammonton, at each of which an X-ray unit has been installed. At the latter clinic quarters, a cancer diagnostic clinic was also held periodically under the auspices of the county medical society and at which public health nursing aid was supplied from the district health office.

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REPORTABLE DISEASES FOR 1947

Thirty-nine diseases are declared reportable by Regulation 1, Chapter VI of the State Sanitary Code. During the calendar year 1947, local boards of health reported to the State Health Department 78,639 cases of these 39 diseases. This is somewhat lower than the total reported cases in 1946. The so-called children's diseases—chickenpox, measles, German measles, mumps and whooping cough—accounted for 67,173 or 85 per cent of the cases of all diseases reported in 1947. Diphtheria case reports numbered 208 as compared with 249 for 1946. Measles reports dropped from over 56,000 in 1946 to 12,209 with a reduction in the number of deaths from 27 to 4. Granting the prevalence of measles fluctuates widely from year to year, the figures for 1947 show a definite drop from the preceding year in the number of cases and also a drop both in the total number of deaths from this cause and in the proportion of deaths to cases. Immune serum globulin supplied through the State Health Department was increasingly used during 1947 by physicians on children exposed to measles. It is probable the use of this material had a definite effect in reducing the number of deaths from this cause.

Meningitis, epidemic cerebro-spinal, which increased in prevalence in New Jersey as elsewhere during the war period and immediately following, showed a reduction to 101 cases from the 184 reported in the preceding year.

Deaths from pneumonia during 1947 were slightly higher than in 1946.

The number of cases of poliomyelitis (296) was slightly over the 1946 total (257). The number of recorded deaths, however, was 10 compared to 24 in 1946.

Scarlet fever case reports (3,474) were below the preceding year. Only two deaths from this cause were recorded in 1947.

In tuberculosis, new low annual case and death records were established. This is gratifying; however, it must be kept in mind that in spite of these low records, 3,161 new cases of tuberculosis were recorded in 1947 and 1,651 deaths.

Another new low annual case record was established in 1947 in typhoid fever. The total reported cases for the year was 45. Four deaths were recorded.

Whooping cough still exacted its toll in New Jersey in 1947 when 8,231 cases were reported and 24 deaths recorded. Of these 24 deaths, all occurred in children below ten years of age, and 19, or about 92 per cent, occurred in children less than one year old.

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ANTHRAX

Nine cases of anthrax were reported in 1947. It is the practice of the Bureau of Local Health Services to advise both the Division of Adult and Industrial Health and the State Department of Labor of such cases when reported so that special investigation may be made of cases among workers at industrial plants. Of the nine cases recorded, eight were among workers at four different industrial plants handling wool, hides, or similar raw materials.

MALARIA

During 1947 there was a very marked reduction in the number of reported cases of this disease. The total cases recorded in 1947 was 99 as compared with 931 in 1946. Of the 99 reported cases, 49 were reported directly from military posts in military personnel infected elsewhere. Study of histories of the remaining 50 cases revealed that 47 of these were in persons who had been members of the armed forces and who received initial infection abroad. Of the remaining three cases, the history in one instance clearly indicated initial infection in Europe. No history of probable infection outside of New Jersey was established in two instances, although one of these patients gave a history of previous attacks suggestive of malaria.

RABIES IN HUMANS

One fatal case of rabies in a human was recorded during the calendar year of 1947. This person, an adult male, was bitten on the ear and finger by a rabid dog on September 14. In spite of anti-rabic treatment, he was taken ill with rabies on September 30 and died two days later.

ROCKY MOUNTAIN SPOTTED FEVER

Twenty-six cases of this disease were reported in 1947 and five deaths recorded. The cases were distributed by counties as follows: Monmouth, six; Cumberland, five; Camden, four; Gloucester, three; Atlantic, Cape May, Hunterdon, two each; Burlington and Ocean, one each.

As has been the practice for several years, the Department upon request furnished physicians with vaccine for preventive inoculations. The U. S. Public Health Service prepared and provided the vaccine.

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TRICHINOSIS

Twenty-nine cases with one death were reported in 1947. Case histories indicated that 20 of the patients ate pork or pork products shortly before onset of illness. Another patient ate ground meat which may have contained pork. For the remaining eight cases, satisfactory case histories were not secured.

TULAREMIA

Three cases of tularemia were reported. Two patients shortly before onset cleaned wild rabbits said to have been shot in Atlantic County. The third case gave a history of cleaning a wild rabbit shot in an adjoining state.

UNDULANT FEVER

In 1947 there was a further drop from previous years in the number of reported cases of this disease. The 45 cases recorded in 1947 were widely scattered and no single common source of infection for any marked number of cases was discovered.

Investigations of these cases were made by State District Health Officers or by local health officials. By this means it was learned that three of the reported cases had received infection outside of New Jersey and one patient, a laboratory worker exposed to cultures of the causative agent of the disease, had presumably become accidentally infected in handling these cultures. Regarding the other 41 cases, investigation showed that 23 were regular users of raw milk prior to illness; 10 gave a history of using both pastuerized and raw milk while two used pasteurized milk regularly but had obtained other milk which may have been unpasteurized.

A complete history of one case was not obtained. In the remaining five cases, no history of the use of raw milk shortly before onset was obtained; however, two of these patients were butchers and, therefore, handled raw meat, while a third was a foreman in a dairy.

INVESTIGATION OF COMMUNICABLE DISEASES

During the fiscal year ending June 30, 1948, employees assigned the Bureau investigated 310 cases of communicable diseases, exclusive of tuberculosis and venereal diseases. These cases were distributed by disease as follows: Anthrax 6, Chickenpox 52, Diphtheria 36, Dysentery, amoebic 6, Dysentery, bacillary 1, German measles 2, Influenza 2, Malaria 5, Measles 3, Meningitis, epidemic 6, Mumps 7, Paratyphoid fever 7, Poliomyelitis 79, Psittacosis 1, Rocky Mountain spotted fever 12, Scarlet fever 5, Streptococcic sore throat 20, Trichinosis 3, Typhoid fever 33, and Undulant fever 24.

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

<i>Municipality</i>	<i>No. of Cases</i>	<i>Vector or Suspected Vector of Infection</i>
Raritan Town and Bridgewater Township	4	Custard-filled doughnuts
Randolph Township and nearby places	99 plus	Shrimp cocktails suspected
Upper Penns Neck Township	126 plus	Not definitely determined

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

<i>Municipality</i>	<i>No. of Cases</i>	<i>Vector or Suspected Vector of Infection</i>
Long Branch City	11	Ground meat sandwiches
Newark City and North Arlington Borough	20	Custard-filled cake
Ocean Township (Monmouth)	97 plus	Roast turkey

DAIRY PREMISES

Cases of certain communicable diseases transmittable through milk are required by existing regulations to be reported by physicians directly to the State Department of Health when occurring on dairy premises. During the fiscal year 11 cases of these diseases were reported on or in connection with 11 dairy premises. The cases included nine of scarlet fever and two of tuberculosis. The daily milk production at these 11 dairies was about 7,810 quarts. Through the efforts of the State District Health Officers, with the assistance of local health officials, precautionary measures designed to prevent the spread of infection through milk were established at each of 10 of these dairies and the sale of milk allowed to continue. At one dairy the operator voluntarily discontinued the sale of milk during the continuance of the case rather than follow precautionary measures considered necessary to protect the product.

TYPHOID CARRIERS

At the close of the fiscal year, 88 persons were recorded in the files of the Department as carriers of typhoid bacilli; four were withdrawn from the list during the year, three by death and one by removal from the State. Six persons were added to the list of carriers; three were known carriers who moved into New Jersey from another state, three were discovered as a result of investigation of cases of typhoid fever.

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 key distributing stations.

Reports received from physicians and local health departments during the fiscal year ending June 30, 1948, show that at least 32,129 children received diphtheria toxoid distributed by the State Health Department and 35,416 received either diphtheria toxoid-whooping cough vaccine combined or received whooping cough vaccine alone. The latter group numbered 5,646. Reports received also show that at least 36,507 persons were vaccinated against smallpox with the material supplied by the State.

OTHER BIOLOGICALS

Immune serum globulin as a preventive of measles in children exposed to infection was also made available at the established distributing stations. All of this material distributed was supplied to this Department by the American Red Cross without charge. During the year a total of 23,500 packages of 2 c.c. each and 1,500 packages each containing 5 c.c. was received for distribution from the American Red Cross.

Sufficient rabies vaccine (human) was released for a complete treatment of 14 doses to 485 persons.

In view of a requirement of statutes, a small amount of anti-pneumococcic sera for typing of pneumococci was furnished during the year to five approved laboratories. No request for serum for the treatment of a case of pneumonia was received.

BLOOD PLASMA

Requests from hospitals and other distributing stations for blood plasma were met throughout the year. The material furnished was supplied this Department by the American Red Cross from the excess above the needs of the armed forces. Allotments of plasma received from the American Red Cross were stored in a local warehouse in Trenton from which shipments were made by express, collect, in conformity with requests received from hospitals and other established distributing stations about the State. For proper labeling, in accord with the wishes of the Red Cross, cases were opened at the warehouse and each package labeled and repacked prior to shipment. Packages furnished contained 250 c.c. or 500 c.c. of dried plasma with necessary equipment for adding liquid in the required amount and for adminis-

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tering the material. During the year there were received from the Red Cross 12,936 individual packages of the plasma. This was distributed chiefly to hospitals.

In Essex County, by arrangement made during the year, the Essex County Blood Bank acted as a local distributing center for the plasma supplied hospitals and stations in that county. Plasma was furnished from the state supply in cases to the Essex County Blood Bank who redistributed it in small quantities upon request to hospitals in the county, collecting and forwarding to the office of the State Health Department reports of physicians on the use of the material.

TUBERCULOSIS AND MASS CHEST X-RAY SURVEYS

During the year there was followed the general practice adopted several years ago whereby the Division of Tuberculosis Control referred to the Bureau of Local Health Services the names and addresses of persons whose X-ray taken in mass screening examinations of industrial and community groups indicated possible pulmonary tuberculosis. Any person so reported and who gave the name of his physician at the time of the survey was urged by letter to consult the physician promptly for more complete examination. At the same time, the physician was notified of the X-ray findings and requested to advise this office as a matter of record of a final determination as to the absence or presence of tuberculosis either in an active or arrested stage. Names of persons who did not give the name of a family physician at the time of the survey 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 State District Health Officers to such agencies as local health departments, county tuberculosis associations and tuberculosis hospitals.

For the year ending June 30, 1948, a total of 3,838 persons were referred to the Bureau of Local Health Services by the Tuberculosis Control Division, and the follow-up procedure started. Since considerable time is required both for the desired examination and in many instances in persuading the suspect to seek such examination, records for the entire number referred could not be completed during the same 12-month period. In the instances in which the special examination was completed during the year, both of those referred and of some others previously referred, there were recorded on the basis of re-examination 172 cases of active pulmonary tuberculosis and 1,668 of arrested tuberculosis. Five hundred forty-nine were recorded as having some chest pathology other than tuberculosis.

TUBERCULOSIS AND THE VETERANS' ADMINISTRATION

As in previous years, notification of cases of tuberculosis was received from hospitals located in nearby states and operated by the Veterans' Administration for tuberculous veterans. These notifications included the names of patients from New Jersey admitted to such hospitals, as well as the names of patients leaving such institutions either with or against medical advice.

Veterans reported as leaving these hospitals were referred to local agencies for follow-up. Reports returned to this office, after follow-up, show that of the number referred out during the year and of the number previously referred but not reported upon, 23 were attending a chest clinic in New Jersey; 11 were admitted to a hospital in this State; one was re-admitted to a veterans' hospital, 25 were under the professional care of their personal physicians; one was recorded as deceased; ten were not located in New Jersey and 23 were still under investigation at the end of the year.

With notices of tuberculous veterans admitted to or leaving the veterans' hospitals, there are also furnished names of members of the immediate family of each such veteran. These names are also referred to local agencies with the request that the persons named be urged to have a chest examination. Three hundred forty persons were so referred during the year. Reports of visits to these and to a similar group under investigation at the end of the previous year show that at least 224 had a chest examination. Seven were found to have active tuberculosis, 33 arrested, and nine had lung pathology other than tuberculosis.

CAMP INSPECTIONS

Recreational summer camps are situated chiefly in rural areas of the State in which local board of health activities are quite limited. For this reason the parents of the campers look to the State Department of Health for assurance that basic sanitary facilities at such camps are reasonably safe. During the year ending June 30, 1948, representatives of the Bureau inspected 159 such camps and where indicated made suggestions for improvement of sanitary conditions and operation.

INSPECTIONS 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 5,719 inspections were made at 1,310 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.

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PRIVATE WATER SUPPLIES

The results of all laboratory tests on samples from private and semi-private 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 fiscal year ending June 30, 1948, 1,224 such reports were sent, each containing the results of the tests, an interpretation of their public health significance and, if the result of examination showed the water to be unsafe, a request for a report on action taken by the local board. Seven hundred seventy-five of the 1,224 supplies were shown to be safe, 104 were of doubtful quality and 345, or 28 per cent, were reported unsafe for drinking and household use. Reports of examination of 85 samples of water from ponds and other bathing places were also forwarded to local officials submitting such samples.

LOCAL BOARDS OF HEALTH

Each local board of health is expected under the provisions of section 26:3-35 of the Revised Statutes to submit an annual report to the State Department of Health. It has been the practice for the State Department of Health to prepare and to furnish to each local board a printed form for the use of such boards in submitting this report. The form prepared for the purpose for the calendar year 1947 was more extensive in scope and more detailed in several respects than had been used for several years. This fact probably accounted for delay greater than usual on the part of some boards in filing the 1947 report.

Up to the date of preparation of this summary, such reports had been received from 560 of the 569 local health boards in the State. Certain data contained in the reports received reveal that at the close of 1947, 80 local boards of health were employing 50 licensed health officers engaged on a full-time basis, and 81 local boards were employing 64 licensed health officers serving in the public health field on a part-time basis.

Local boards of health also reported employing either on a full- or part-time basis 283 licensed sanitary, food and drug, or special food inspectors, and 143 licensed plumbing inspectors.

The total amount of funds available to the local boards of health in 1947 for all purposes was reported as \$4,318,097.20. This is an increase of over \$600,000 above the total sum available for the use of the local health boards in 1946. In a few municipalities appropriations for the use of local health

boards included a special allotment for the maintenance of a contagious disease hospital, and also in a few municipalities part of the funds appropriated for the local health boards was intended to be used for garbage collection and disposal.

Excluding the sum reported as utilized for these special purposes, there remained for the use of the local boards the total of \$4,018,093.92. Based upon an estimated total population of the State as of July 1, 1947, of 4,435,000, the per capita amount so available was \$.91. The total amount reported as expended by local boards of health in 1947, less any amount for hospitals and for garbage disposal, is \$3,816,702.65, or \$.86 per capita. This is about eight cents per capita higher than the amount reported expended in 1946. The total amount reported expended, less any amount for hospitals and garbage disposal, by all boards of health in each of the respective counties, shows a per capita amount of \$.15 or less in the counties of Gloucester, Hunterdon and Warren. On the other hand, the highest per capita sum, \$1.81, was shown in Essex County. The per capita expenditure in 1946 reported by all the boards of health in 13 municipalities each having a total population of 50,000 or more was \$1.24. During 1947 the same municipalities reported the per capita expenditure by the boards of health as \$1.37. For all boards of health in other municipalities of the State the reported per capita expenditure for 1947 was about \$.50. These sums are exclusive of expenditures for hospitals and for garbage removal.

SUMMARY OF OTHER WORK OF THE BUREAU

Certain activities of employees assigned the Bureau and not otherwise listed above include the following:

1. No. of conferences with local health officials on questions pertaining to public health	5,740
2. No. of conferences with persons other than local health officials	9,376
3. No. of meetings of local boards of health attended	66
4. No. of other meetings attended	348
5. No. of lectures given in courses for health officials	38
6. No. of other talks or lectures given or papers read	63
7. No. of specimens collected from humans either by employees of the Bureau or with their aid to be examined for pathogenic bacteria	135
8. No. of water samples collected for laboratory examination	847
9. No. of other specimens and samples collected for laboratory examination ..	538
10. No. of instances in which aid was given in diagnosis of suspected cases of communicable diseases	6
11. No. of special investigations, including alleged nuisances, insanitary conditions, etc.	1,548

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**REPORTED CASES AND DEATHS, CASE AND DEATH RATES FOR CERTAIN
REPORTABLE DISEASES FOR 1947**

DISEASE	Cases	*Cases per 100,000 Pop.	Deaths	*Deaths per 100,000 Pop.	Per Cent Fatality
Chickenpox	30,620	690.41	2	0.04	0.006
Diphtheria	208	4.69	14	0.31	6.73
Influenza	257	5.79	75	1.69	29.18
Pneumonia	3,397	76.59	1,483	33.44	43.65
Meningitis, epidemic cerebrospinal ...	101	2.27	33	0.74	32.67
Measles	12,209	275.28	4	0.09	0.03
German measles	1,334	30.08	0	....	....
Polio-myelitis, acute anterior	296	6.67	10	0.22	3.38
Scarlet fever	3,474	78.33	2	0.04	0.05
Rocky Mountain spotted fever	26	0.58	5	0.11	19.23
Tuberculosis	3,161	71.27	1,561	35.19	49.38
Typhoid fever	45	1.01	4	0.09	8.89
Whooping cough	8,321	187.62	24	0.54	0.29

* Rates figured on an estimated population of 4,435,000.

CASES AND DEATHS FROM OTHER REPORTABLE DISEASES FOR 1947

DISEASE	Cases	Deaths	DISEASE	Cases	Deaths
Anthrax	9	0	Rabies	1	1
Dysentery, amoebic	66	2	Smallpox	1	1
Bacillary	3	0	Tetanus	5	6
Unspecified	5	1	Trachoma	0	2
Encephalitis, lethargic	5	18	Trichinosis	29	1
Malaria	99	1	Tularemia	3	0
Mumps	14,689	1	Typhus fever	0	0
Ophthalmia neonatorum	7	0	Undulant fever	45	1
Paratyphoid fever	18	2			

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1947

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COUNTIES	Anthrax	Chickentpox	Diphtheria	Dysentery	Encephalitis Lethargic	Influenza	Malaria	Measles	German Measles	Meningitis, Epidemic Cerebrospinal	Mumps	Ophthalmia Neonatorum	Paratyphoid Fever	Pneumonia	Acute Anterior Polyomyelitis
Atlantic	0	383	2	0	0	2	6	615	11	2	95	0	0	17	4
Bergen	0	4,792	5	4	0	9	5	3,302	217	2	2,315	0	4	121	24
Burlington	2	388	5	1	0	4	1	200	14	2	152	0	4	69	5
Camden	2	1,198	81	0	0	10	1	183	31	2	312	0	0	129	39
Cape May	0	123	1	1	0	0	0	125	6	1	37	0	0	7	3
Cumberland	0	160	9	0	0	3	2	21	6	0	80	0	0	71	4
Essex	0	10,097	5	6	0	56	14	1,470	391	28	6,696	5	2	1,555	45
Gloucester	0	249	5	0	0	1	0	46	6	0	114	0	0	24	18
Hudson	0	2,165	34	6	1	3	5	2,617	76	13	381	0	1	201	2
Hunterdon	6	20	1	1	0	1	0	21	1	0	21	0	0	12	1
Mercer	0	662	24	1	0	43	3	1,340	31	3	348	1	1	191	4
Middlesex	0	663	11	0	0	0	0	118	26	2	295	0	1	57	12
Monmouth	0	1,372	2	0	2	10	3	192	99	4	659	0	0	104	62
Morris	0	1,734	2	19	1	5	0	203	61	4	433	1	0	39	7
Ocean	0	164	0	1	0	5	0	19	4	0	22	0	0	70	1
Passaic	3	1,884	3	0	0	54	3	1,196	55	6	762	0	2	19	16
Salem	0	92	1	0	0	0	0	5	6	1	9	0	1	2	4
Somerset	0	211	2	0	0	4	1	54	17	1	192	0	1	64	1
Sussex	0	152	0	0	0	1	0	19	12	1	147	0	1	11	1
Union	2	4,047	6	0	1	14	5	346	192	10	1,525	0	0	229	29
Warren	0	20	7	6	0	0	0	33	30	0	7	0	0	14	4
State institutions	0	12	0	7	0	0	1	6	0	3	5	0	0	27	1
Military posts	0	32	2	27	0	2	49	58	148	4	82	0	0	364	1
State total	9	30,620	208	74	5	257	99	12,200	1,534	101	14,689	7	18	3,597	296

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1947—(Continued)

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Tularemia	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic	0	2	54	0	1	0	0	123	2	4	0	0	128
Bergen	0	0	403	0	6	0	6	214	1	0	0	2	1,439
Burlington	0	1	106	0	3	0	0	59	0	0	0	4	33
Camden	0	4	208	0	3	0	0	194	0	0	0	0	270
Cape May	0	2	9	0	0	0	0	21	0	0	0	0	30
Cumberland	0	5	39	0	3	0	1	47	0	3	0	3	18
Essex	1	0	833	0	36	1	7	669	0	3	0	9	2,866
Gloucester	0	3	64	0	0	0	0	38	0	9	0	0	28
Hudson	0	0	490	0	20	1	3	550	0	2	0	12	555
Hunterdon	0	2	13	0	0	0	0	18	0	0	0	1	23
Mercer	0	0	217	1	23	0	0	198	0	5	0	3	257
Middlesex	0	0	110	0	1	1	2	141	0	3	0	3	176
Monmouth	0	6	100	0	2	0	1	115	0	5	0	1	493
Morris	0	0	144	0	1	0	3	63	0	1	0	7	375
Ocean	0	1	17	0	0	0	0	31	0	0	0	0	15
Passaic	0	0	197	0	3	0	3	198	0	0	0	0	497
Salem	0	0	28	0	1	1	0	24	0	1	0	2	25
Somerset	0	0	51	0	3	0	1	42	0	0	0	2	162
Sussex	0	0	28	0	0	0	0	15	0	1	0	4	19
Union	0	0	274	0	18	1	2	141	0	5	0	0	923
Warren	0	0	49	0	1	0	0	19	0	0	0	1	7
State institutions	0	0	1	0	14	0	0	184	0	1	0	0	3
Military posts	0	0	39	0	2	0	0	57	0	0	0	0	0
State total	1	26	3,474	1	141	5	29	3,161	3	45	0	45	8,321

RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1947

DEPARTMENT OF HEALTH

COUNTIES	Anthrax	Chickenpox	Diphtheria	Dysentery	Encephalitis, Lethargic	Influenza	Malaria	Measles	German Measles	Meningitis, Epidemic Cerebrospinal	Mumps	Ophthalmia Neonatorum	Paratyphoid Fever	Pneumonia	Acute Anterior Polyomyelitis
Atlantic	0	0	0	0	0	5	0	0	0	0	0	0	0	75	1
Bergen	0	0	1	0	2	3	0	1	0	8	0	0	0	129	1
Burlington	0	0	0	1	0	12	0	12	0	0	0	0	0	29	0
Camden	0	0	2	0	0	8	0	0	0	6	0	0	0	115	2
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
Cumberland	0	0	1	0	0	3	0	0	0	0	0	0	0	20	0
Essex	0	0	0	0	7	11	0	0	0	6	0	0	0	244	1
Gloucester	0	0	0	0	0	4	0	0	0	0	0	0	0	22	0
Hudson	0	1	3	1	12	7	1	1	0	5	0	0	1	223	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Mercer	0	0	3	0	1	3	0	0	0	0	0	0	0	74	0
Middlesex	0	0	2	0	0	3	0	0	0	2	0	0	0	81	0
Monmouth	0	0	1	0	0	3	0	0	0	1	0	0	0	69	0
Morris	0	1	0	0	0	5	0	0	0	1	1	0	0	49	0
Ocean	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Passaic	0	0	0	1	2	7	0	0	0	4	0	0	1	117	0
Salem	0	0	0	0	1	1	0	0	0	0	0	0	0	10	2
Somerset	0	0	0	0	0	1	0	0	0	1	0	0	0	22	0
Sussex	0	0	0	0	0	1	0	0	0	1	0	0	0	11	1
Union	0	0	1	0	3	7	0	0	0	3	0	0	0	118	1
Warren	0	0	0	0	0	1	0	0	0	0	0	0	0	26	1
State total	0	2	14	3	18	75	1	4	0	33	1	0	2	1,483	10

RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1947—(Continued)

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Tularemia	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic	0	1	0	0	1	0	0	60	0	0	0	0	1
Bergen	0	0	0	0	0	0	1	87	0	0	0	0	12
Burlington	0	1	0	0	1	0	0	29	0	1	0	0	0
Camden	0	0	2	0	0	0	0	115	0	0	0	0	12
Cape May	0	0	0	0	0	0	0	6	0	0	0	0	12
Cumberland	0	1	0	0	1	0	0	24	0	0	0	0	0
Essex	1	0	0	0	1	0	0	416	0	1	0	0	1
Gloucester	0	1	0	0	0	0	0	20	0	1	0	0	0
Hudson	0	0	0	0	1	0	0	284	0	0	0	1	12
Hunterdon	0	0	0	0	0	0	0	8	0	0	0	0	0
Mercer	0	0	0	1	0	0	0	95	0	1	0	0	12
Middlesex	0	0	0	0	1	2	0	69	0	0	0	0	1
Mounmouth	0	0	0	0	0	1	0	59	0	0	0	0	12
Morris	0	0	0	0	0	0	0	37	0	0	0	0	0
Ocean	0	0	0	0	0	0	0	17	0	0	0	0	0
Passaic	0	0	0	0	1	0	0	95	0	0	0	0	12
Salem	0	1	0	0	0	1	0	15	0	0	0	0	1
Somerset	0	0	0	0	0	0	0	20	0	0	0	0	0
Sussex	0	0	0	0	0	1	0	7	0	0	0	0	1
Union	0	0	0	0	1	1	0	90	0	0	0	0	4
Warren	0	0	0	0	0	0	0	8	0	0	0	0	1
State total	1	5	2	1	8	6	1	1,561	0	4	0	1	24

Deaths occurring in state institutions are charged to the place of residence of the decedent.
Deaths occurring at military posts are charged to the county in which the post is located.

DEPARTMENT OF HEALTH

REPORTED CASES OF DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1947, 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	4	1	0	1	0	1	0	0	0	0	0	1	0
1 year	5	0	1	6	1	0	0	0	0	0	0	2	1
2 years	15	0	3	3	1	0	0	1	0	1	1	4	1
3 years	18	2	1	0	2	4	4	1	1	0	0	0	3
4 years	10	3	1	1	0	1	1	0	0	0	2	1	0
Under 5 years	52	6	6	5	4	6	5	2	1	1	3	8	5
5 to 9 years	60	6	12	8	8	6	1	2	0	4	1	4	8
10 to 14 years	42	3	4	4	8	8	2	1	1	0	1	6	4
15 to 19 years	15	5	3	2	3	0	2	0	0	0	0	4	1
20 to 24 years	9	0	0	2	1	6	1	0	1	0	0	2	2
25 to 34 years	13	1	2	2	0	3	1	1	0	0	0	2	1
35 to 44 years	12	1	0	3	1	3	0	0	0	0	0	0	4
45 to 54 years	2	0	0	1	1	0	0	0	0	0	0	0	0
55 to 64 years	2	0	0	1	0	0	0	0	0	0	0	1	0
65 years and over	1	0	0	0	0	1	0	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	298	17	27	28	26	27	12	6	3	5	5	27	25

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	2	1	2	0	4	1
1 year	4	1	1	0	5	1
2 years	8	1	7	1	15	2
3 years	11	2	7	1	18	3
4 years	6	0	4	0	10	0
Under 5 years	31	5	21	2	52	7
5 to 9 years	33	2	27	3	60	5
10 to 14 years	23	1	19	0	42	1
15 to 19 years	8	0	7	0	15	0
20 to 24 years	4	0	5	0	9	0
25 to 34 years	4	0	3	0	13	0
35 to 44 years	3	1	9	0	12	1
45 to 54 years	0	0	2	0	2	0
55 to 64 years	1	0	1	0	2	0
65 years and over	0	0	1	0	1	0
Age not stated	0	0	0	0	0	0
Total	107	9	101	5	208	14

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1947, 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	13	1	0	1	2	2	1	1	0	0	2	1	2
1 year	7	1	1	0	2	0	1	1	0	0	1	0	0
2 years	3	1	0	0	0	0	0	2	0	0	0	0	0
3 years	4	0	1	0	0	0	1	1	0	0	0	0	1
4 years	3	0	1	0	0	0	1	0	1	0	0	0	0
Under 5 years	30	3	3	1	4	2	4	5	1	0	3	1	3
5 to 9 years	13	4	0	0	2	1	2	1	1	0	1	0	1
10 to 14 years	4	0	0	0	1	1	1	0	0	1	0	0	0
15 to 19 years	7	2	1	0	0	1	0	0	1	1	0	0	1
20 to 24 years	14	4	2	1	1	1	0	1	0	0	1	3	0
25 to 34 years	7	3	1	1	0	1	0	1	0	0	0	0	0
35 to 44 years	10	4	1	1	0	0	0	2	0	1	0	0	1
45 to 54 years	6	0	0	0	1	1	1	1	0	0	2	0	0
55 to 64 years	7	0	1	0	1	0	1	0	1	1	0	1	1
65 years and over	3	1	1	0	0	0	0	0	0	0	0	1	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	101	21	10	4	10	8	9	11	4	4	7	6	7

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REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS
IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	8	4	5	4	13	8
1 year	4	1	3	3	7	4
2 years	2	0	1	1	3	1
3 years	2	1	2	0	4	1
4 years	1	0	2	1	3	1
Under 5 years	17	6	13	9	30	15
5 to 9 years	5	0	8	2	13	2
10 to 14 years	2	0	2	1	4	1
15 to 19 years	4	0	3	1	7	1
20 to 24 years	7	1	7	2	14	3
25 to 34 years	3	1	4	2	7	3
35 to 44 years	6	3	4	1	10	4
45 to 54 years	3	0	3	1	6	1
55 to 64 years	5	0	2	0	7	0
65 years and over	2	2	1	1	3	3
Age not stated	0	0	0	0	0	0
Total	54	13	47	20	101	33

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1947, 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	270	62	34	39	23	16	8	14	8	8	20	17	21
1 Year	112	17	13	8	16	7	5	6	4	1	7	9	19
2 years	78	24	11	6	3	5	3	3	4	2	4	4	9
3 years	62	24	8	4	4	4	2	2	3	0	1	5	5
4 years	66	10	6	7	5	3	3	1	1	0	5	9	16
Under 5 years	588	137	72	64	51	35	21	26	20	11	37	44	70
5 to 9 years	154	27	12	10	18	5	6	6	8	3	13	21	25
10 to 14 years	99	9	7	7	12	1	1	7	7	8	12	7	21
15 to 19 years	319	39	41	44	47	24	19	3	18	6	26	38	14
20 to 24 years	147	19	12	25	19	12	9	8	12	4	7	5	15
25 to 34 years	261	39	24	32	49	15	9	13	14	13	22	17	23
35 to 44 years	285	43	26	43	27	10	9	18	16	11	30	20	32
45 to 54 years	325	47	29	50	44	24	13	13	18	10	24	17	36
55 to 64 years	405	57	36	57	43	28	25	24	9	13	28	37	48
65 years and over	809	125	80	100	85	47	38	42	35	41	61	48	107
Age not stated	5	1	1	0	1	0	6	0	0	0	1	0	1
Total	3397	534	340	432	396	201	150	160	157	120	261	254	392

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	152	159	118	107	270	266
1 year	61	21	51	14	112	35
2 years	44	6	34	4	78	10
3 years	32	7	30	3	62	10
4 years	34	3	32	3	66	6
Under 5 years	323	196	265	131	588	327
5 to 9 years	94	5	60	7	154	12
10 to 14 years	52	6	47	3	99	9
15 to 19 years	286	4	33	7	319	11
20 to 24 years	100	9	47	10	147	19
25 to 34 years	151	22	110	18	261	40
35 to 44 years	174	43	111	26	285	69
45 to 54 years	214	100	111	53	325	153
55 to 64 years	273	137	132	69	405	217
65 years and over	393	314	416	312	809	626
Age not stated	1	0	4	0	5	0
Total	2061	856	1336	627	3397	1483

DEPARTMENT OF HEALTH

REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1947, 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	4	0	0	0	0	0	0	0	2	1	1	0	0
1 year	11	0	0	0	0	0	0	1	3	5	2	0	0
2 years	14	0	0	0	2	0	0	2	3	4	2	1	0
3 years	16	0	1	0	0	0	0	0	3	7	4	1	0
4 years	20	0	0	0	0	0	0	2	6	6	4	1	1
Under 5 years	65	0	1	0	2	0	0	5	17	23	13	3	1
5 to 9 years	108	1	1	0	0	3	4	5	22	41	21	10	0
10 to 14 years	55	1	0	0	0	1	2	2	11	33	3	1	1
15 to 19 years	43	0	0	0	0	0	0	2	11	20	7	2	1
20 to 24 years	12	1	0	0	0	0	0	1	2	6	1	1	0
25 to 34 years	11	0	0	0	0	0	0	0	3	3	3	2	0
35 to 44 years	2	0	0	0	0	0	0	0	0	2	0	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	296	3	2	0	2	4	6	15	66	128	48	19	3

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	1	0	3	0	4	0
1 year	8	0	3	0	11	0
2 years	3	0	8	0	14	0
3 years	16	0	6	0	16	0
4 years	13	0	7	0	20	0
Under 5 years	38	0	27	0	65	0
5 to 9 years	78	4	36	1	108	5
10 to 14 years	41	1	14	0	55	1
15 to 19 years	23	1	20	1	43	2
20 to 24 years	6	0	6	0	12	0
25 to 34 years	6	2	5	0	11	2
35 to 44 years	0	0	2	0	2	0
45 to 54 years	0	0	0	0	0	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	192	8	104	2	296	10

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1947, 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	13	1	1	5	1	1	0	2	0	0	0	2	0
1 year	63	9	6	13	10	8	2	1	0	2	0	7	5
2 years	156	23	26	27	25	14	7	6	6	1	8	6	7
3 years	278	43	40	55	42	25	21	8	2	5	9	15	13
4 years	387	55	70	70	54	49	24	9	4	8	16	21	16
Under 5 years	897	131	143	170	132	88	54	26	12	16	33	51	41
5 to 9 years	1811	277	296	334	226	234	117	27	14	25	62	83	116
10 to 14 years	477	81	53	89	74	71	30	7	3	9	13	26	21
15 to 19 years	157	11	22	38	32	14	7	3	1	3	8	9	9
20 to 24 years	40	7	4	11	8	5	2	0	0	0	0	2	1
25 to 34 years	56	9	8	8	9	4	1	2	2	1	4	5	3
35 to 44 years	23	3	5	3	4	3	3	1	0	0	0	0	1
45 to 54 years	8	1	2	1	2	0	0	0	0	0	1	1	0
55 to 64 years	4	2	0	0	0	0	0	0	0	0	0	2	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	1	0	0	1	0	0	0	0	0	0	0	0	0
Total	3474	522	533	655	487	419	214	66	32	54	121	179	192

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REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	8	6	5	0	13	6
1 year	38	6	25	0	63	6
2 years	87	0	69	0	156	0
3 years	142	0	126	0	278	0
4 years	209	0	178	0	387	0
Under 5 years	484	0	413	0	897	0
5 to 9 years	915	0	895	0	1811	0
10 to 14 years	236	0	241	0	477	0
15 to 19 years	99	0	67	0	157	0
20 to 24 years	29	0	26	0	40	0
25 to 34 years	27	0	29	1	56	1
35 to 44 years	9	0	14	0	23	0
45 to 54 years	4	0	4	1	8	1
55 to 64 years	2	0	2	0	4	0
65 years and over	0	0	0	0	0	0
Age not stated	1	0	0	0	1	0
Total	1789	0	1685	2	3474	2

REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1947, 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	0	1	5	1	1	3	0	3	0	0	0	0
1 year	15	1	2	1	2	2	0	0	3	1	0	3	0
2 years	8	1	0	0	3	0	0	1	0	1	0	0	2
3 years	18	5	0	1	3	2	1	0	2	0	1	2	1
4 years	10	0	1	1	2	1	0	0	0	0	3	2	0
Under 5 years	65	7	4	8	11	6	4	1	8	2	4	7	3
5 to 9 years	34	1	3	6	4	3	5	1	3	2	3	3	0
10 to 14 years	43	3	4	4	5	7	6	2	4	0	3	1	4
15 to 19 years	154	18	9	7	18	16	11	6	14	10	16	16	13
20 to 24 years	373	43	28	36	35	21	34	30	31	21	37	28	29
25 to 34 years	618	62	46	59	60	42	64	43	41	55	49	41	56
35 to 44 years	569	49	47	46	46	55	41	52	45	44	52	39	53
45 to 54 years	497	39	46	46	43	44	46	37	30	34	56	39	46
55 to 64 years	474	44	39	44	33	51	37	34	31	37	44	37	43
65 years and over	326	26	20	33	39	29	22	23	31	21	54	20	17
Age not stated	8	2	0	1	1	0	6	0	1	0	2	0	1
Total	3161	294	246	290	286	274	270	229	239	226	320	222	265

REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	9	3	5	3	14	6
1 year	8	4	7	3	15	7
2 years	4	1	4	1	8	2
3 years	12	2	6	0	18	2
4 years	5	2	5	1	10	3
Under 5 years	38	12	27	8	65	20
5 to 9 years	18	1	16	3	34	4
10 to 14 years	20	2	23	6	43	8
15 to 19 years	73	10	81	18	154	28
20 to 24 years	174	39	199	71	373	110
25 to 34 years	271	105	347	148	618	251
35 to 44 years	347	173	222	88	569	261
45 to 54 years	375	242	122	50	497	292
55 to 64 years	366	229	108	61	474	290
65 years and over	221	210	195	87	416	297
Age not stated	6	0	2	0	8	0
Total	1909	1021	1252	540	3161	1561

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DEPARTMENT OF HEALTH

REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1947, 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	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year	1	0	0	0	0	1	0	0	0	0	0	0	0
2 years	2	2	0	0	0	0	0	0	0	0	0	0	0
3 years	1	0	0	0	0	0	0	0	0	1	0	0	0
4 years	1	0	0	0	0	0	0	0	0	0	1	0	0
Under 5 years	5	2	0	0	0	1	0	0	0	1	1	0	0
5 to 9 years	5	1	0	0	0	1	0	1	1	0	1	0	0
10 to 14 years	4	0	1	0	0	0	0	0	1	0	1	0	1
15 to 19 years	1	0	0	0	0	1	0	0	0	0	0	0	0
20 to 24 years	6	0	0	0	0	0	0	0	1	1	3	0	1
25 to 34 years	5	0	1	0	0	1	0	1	1	0	1	0	0
35 to 44 years	8	0	0	2	0	1	0	1	1	0	2	1	0
45 to 54 years	6	0	0	0	0	0	0	2	0	1	2	1	0
55 to 64 years	5	0	0	1	0	0	0	0	2	0	1	0	1
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	45	3	2	3	0	5	0	5	7	3	12	2	3

REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	1	0	0	0	1	0
2 years	0	0	2	0	2	0
3 years	1	0	0	0	1	0
4 years	0	0	1	0	1	0
Under 5 years	2	0	3	0	5	0
5 to 9 years	2	0	3	0	5	0
10 to 14 years	3	1	1	0	4	1
15 to 19 years	0	0	1	1	1	1
20 to 24 years	0	0	6	0	6	0
25 to 34 years	3	0	2	1	5	1
35 to 44 years	4	0	4	0	8	0
45 to 54 years	3	0	4	0	6	0
55 to 64 years	3	0	2	1	5	1
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	19	1	26	3	45	4

REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1947, 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	718	51	28	35	55	71	73	89	88	63	74	45	46
1 year	505	35	25	22	28	38	60	50	68	50	48	39	42
2 years	737	55	42	46	50	77	66	80	91	82	58	47	43
3 years	917	80	52	53	67	89	83	116	99	100	73	60	45
4 years	972	67	59	47	62	99	127	116	115	103	71	58	48
Under 5 years	3849	288	206	203	262	374	409	451	461	398	324	249	224
5 to 9 years	3754	356	259	251	299	440	404	382	276	330	253	280	224
10 to 14 years	3588	42	48	42	38	65	65	44	30	54	37	37	36
15 to 19 years	64	6	6	4	5	10	7	3	4	7	3	4	5
20 to 24 years	13	2	0	0	1	1	2	2	2	0	1	0	1
25 to 34 years	43	0	1	3	3	3	6	6	6	5	4	2	4
35 to 44 years	51	2	2	0	3	3	5	5	3	5	1	0	2
45 to 54 years	16	2	0	0	0	0	2	3	3	1	2	2	1
55 to 64 years	5	1	0	1	0	1	0	0	0	1	0	1	0
65 years and over	2	0	0	0	0	0	0	0	1	0	0	0	1
Age not stated	6	0	0	2	0	0	1	2	0	0	0	0	1
Total	8321	699	522	506	611	897	901	899	786	801	625	575	499

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REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1947, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	331	4	387	15	718	19
1 year	252	1	253	2	505	3
2 years	344	0	393	1	737	1
3 years	429	0	488	0	917	0
4 years	480	0	492	0	972	0
Under 5 years	1836	5	2013	18	3849	23
5 to 9 years	1811	0	1943	1	3754	1
10 to 14 years	240	0	298	0	538	0
15 to 19 years	31	0	33	0	64	0
20 to 24 years	3	0	10	0	13	0
25 to 34 years	12	0	31	0	43	0
35 to 44 years	12	0	19	0	31	0
45 to 54 years	5	0	11	0	16	0
55 to 64 years	0	0	5	0	5	0
65 years and over	0	0	2	0	2	0
Age not stated	3	0	3	0	6	0
Total	3953	5	4368	19	8321	24

Report of the Bureau of Preventable Diseases

July 1, 1947—June 30, 1948

ROSCOE P. KANDLE, M. D., served as Director of the Bureau until February 1, 1948

A. JOSEPH HUGHES, M. D., served as Acting Director from February 1 to June 1, 1948

The Bureau of Preventable Diseases consists of the Divisions of Adult and Industrial Health, Cancer Control, Dental Health, Maternal and Child Health, Tuberculosis Control and Venereal Disease Control; the Negro Health Program and Rabies Control Program; the Advisory Public Health Nurse; and the Nutritionist. It is housed at 19 West State Street, Trenton, where there is also the laboratory for the Division of Adult and Industrial Health and a testing laboratory for the mobile X-ray equipment of the Division of Tuberculosis Control.

Regular staff discussion group meetings of the Division Chiefs and Program Heads of the Bureau were held; other bureau chiefs and guests were frequently invited. By this method, plans were developed for such projects as a Division of Public Health Nursing, expanded statistical service for the Department, inter-divisional and inter-bureau policies, etc. Some progress toward departmental staff meetings was made.

Informal evaluation studies regarding the programs of the units of the Bureau were made. Continuous studies, research and planning were conducted regarding the relationships and effectiveness of the programs of the Bureau, as related to local health services. These resulted in the increasing conviction that a grant-in-aid program to local units organized on a county basis must be obtained to achieve the objectives which each Division or program separately and collectively recognizes as essential for the *people* of New Jersey. Some further progress was made in the co-ordination of the work of the Divisions and programs of the Bureau, within the Bureau, with other Bureaus and with other departments and local municipalities.

The studies in whooping cough began to bear fruit with the publication of a manual "The Control of Whooping Cough in New Jersey." A paper based

on the studies appeared in the September 1947 issue of the *Journal of the Medical Society of New Jersey*. Pamphlets and posters on this subject were developed in co-operation with the Division of Health Education. The State Department of Education joined the Department of Health in making this pattern of the control of whooping cough a part of its official program. The increasing interest of local school, health and nursing groups in whooping cough control was gratifying.

A course in the epidemiology of tuberculosis was conducted in Newark and Hackensack, as a part of the fall courses of the Department and Rutgers University.

The Bureau assisted the Bureau of Local Health Services in conducting an intensive and extensive survey of public health services in Bloomfield.

The Director of the Bureau served as chairman of the Board of Examiners of Health Officers and Inspectors, and the office of the Bureau continued the studies of the examining procedure and the development of examination material. The examining process was interrupted in July by the fact that the Attorney-General's Office advised that no examinations could be held until a Commissioner was appointed. The designation of the Director of Health as Acting Commissioner permitted the examinations to be held in October. New examining materials were utilized which had been constructed with the consultation of the Merit System Unit of the American Public Health Association.

The personnel assigned to the Migrant Labor Program was housed with the Bureau. Policies for the program were developed by means of a committee and co-ordination within the Bureaus was promoted.

The increasing use of the conference room for Bureau meetings and by other bureaus and agencies was an obviously useful, integrating force within the Department. The conference room was developed with the aid and advice of the experts of the Division of Adult and Industrial Health and is a laboratory and demonstration of sound practice in eye conservation.

The attempt to develop competent statistical and research services for the Department continued and made significant progress. The service was housed in the Bureau offices and received guidance from the Bureau, although structurally the service is a part of the Bureau of Personnel, Administration Records and Accounts. The staff of two which had functioned since January 1, 1947, was reduced to one, the Statistician, on July 1. Requests for his services increased steadily, both in number and in the potential effectiveness of the service. Substantial contributions were made to the Migrant Program, the Rabies Program, the Divisions of Maternal and Child Health, Venereal Disease Control and Dental Health, to the Director of the Bureau of Preventable Diseases and the Nutritionist. Some additional co-ordination of the

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total statistical functions of the Department was achieved. Plans were developed in close co-operation with the Bureau of Vital Statistics to secure mechanical tabulating and sorting equipment and to standardize procedures in this field.

NUTRITION

Most encouraging progress was made in the Nutrition Program. It increasingly became actually a departmental program and co-ordinated closely and effectively with the total state program. In-service training was given for the 300 field public health nurses under the supervision of the Division of Maternal and Child Health. Plans were laid for the 1947-48 fall, winter, and spring, and regular monthly meetings held on this basis for small groups throughout the State. A formal course was given at the Paterson State Teachers College.

Plans were drawn for a co-operative project with the New Jersey Experiment Station under the Flanagan-Hope Act. Survey of industrial workers and their families will get under way in the fall of 1948.

Accredited field training was provided a post-graduate student of Simmons College in Boston.

Research and field work was done in co-operation with the American Red Cross on an evaluation of the nutrition services of New Jersey municipalities.

Consultation was provided a rheumatic fever clinic and special forms and procedures were developed.

Material which achieved national comment was prepared in conjunction with the Governor's Food Conservation Program.

Radio programs on nutrition have been prepared in co-operation with the Division of Health Education. Material on the harmful use of mineral oil as a food was prepared and distributed. The Nutritionist prepared a nutrition exhibit for the nutrition booth of the New Jersey Medical Society at its annual convention in Atlantic City in April.

Several thousand pamphlets on foods and nutrition have been distributed by this Department throughout the State.

The Nutritionist took an active part in the State Nutrition Council and worked with them to secure the passing of the bill to allow the use of colored margarine in the State.

ADVISORY PUBLIC HEALTH NURSE

The Advisory Public Health Nurse continued to work under the Director of the Bureau of Preventable Diseases during the past year.

Consultant services were rendered in the field of public health nursing, both to official and non-official agencies in the State. These services included

recruitment and placement of nurses and advice in planning changes in program.

Active participation on a state level in committee work was continued, and regional and national conferences were attended.

A current file of all public health nurses operating in the State was maintained.

Articles on public health nursing were prepared and published in health journals and magazines.

Hospital schools of nurses were given assistance with student education through preparation of material and provision of personnel.

Assistance was also given with the public health nursing portions of community surveys.

Report of the Division of Adult and Industrial Health

July 1, 1947—June 30, 1948

By E. L. SCHALL, *Industrial Hygiene Engineer*

A great advance in industrial health activities was completed by the Division of Adult and Industrial Health during the fiscal year ending June 30, 1948. The number of industrial plants serviced was nearly doubled over the number serviced the preceding year. Initial plant visits were made following requests received from management, labor union, employees, communities and occupational disease reports.

COVERAGE OF INDUSTRY OF STATE

Plant Activities

Number of different plants serviced	691
Total number of workers in plants serviced	627,145
Total number of plant visits made	794

Source of Service

Self-initiated and follow-up visits	132
Request from management, labor, etc.	618
Official reports of occupational diseases	44
Total	794

During the twelve-month period, 691 different plants were serviced as compared with 353 the previous year. As in other years, most of these plants employed less than 500 workers while others employed less than 100 workers, again emphasizing the fact that smaller plants require more assistance from outside agencies in providing adequate industrial health programs. The total number of plant visits made was 794 as compared to 464 the previous year and 325 in the 1945-1946 fiscal year.

Self-initiated visits represented 19 per cent of all plant visits and were conducted as a guide to the Division to learn what per cent of the recommendations to industry were being made effective. Of these plants visited, it was learned that \$470,760 had been spent by these industries at the recommendation of this Division to promote better health among the workers. Industry

first requested these surveys and willingly applied the recommendations to improve conditions, knowing such recommendations are the result of scientific medical-engineering studies—not inspections. The self-initiated follow-up visits completed only partially covered the plants to which recommendations had been offered. This phase of the Division's activities should be expanded, but the requests for other services placed a definite limit on the time allotted for this work.

Of the 691 different plants visited, 169 or 25 per cent had never been visited by the Division before. The remaining 522 or 75 per cent had received Division services during previous years and apparently satisfied, desired assistance with additional problems this fiscal year.

Services offered by the Division were 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 691 plants serviced, 478 were in-plant environmental engineering services (69 per cent of the total services) and 213 were medical-nursing services (31 per cent of the total services).

The basis for a majority of the recommendations made during the year are the results of the analysis of atmospheric samples, raw materials handled, and urine and blood samples collected by the personnel of this Division 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:

LABORATORY ANALYSES AND FIELD DETERMINATIONS

Acetone	24	Manganese	11
Ammonia	22	Noise determinations	31
Amyl acetate	32	Oxides of nitrogen	3
Asbestos dust	1	Phenol	2
Ash	20	Radioactive rays	16
Atmospheric temperatures	31	Relative humidity	42
Benzol	1	Solids	41
Carbon monoxide	13	Solvents	102
Chlorides	20	Sulfur dioxide	22
Chlorinated hydrocarbons	51	Sulphates	20
Chromic acid	18	Sulphuric acid	18
Dust counts	40	Tar	18
Formaldehyde	3	Toluol	6
Free silica	8	Urine albumen	110
Hydrogen cyanide	7	Urine sugar	110
Hydrogen sulphide	28	Ventilation readings	207
Iron oxide	7	Volatile sulphur	20
Lacquer	7	Xylol	40
Lead	157		
		Total	1,309

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The above total of 1,309 is an increase of 26 per cent over the laboratory analyses and field determinations reported for last year which was 1,039.

During the year, the Division has been called on frequently by industrial physicians and company representatives for information regarding the toxicity of certain substances and for other inquiries regarding industrial hygiene activities. Requests for this type of information numbered 406 during the past year. This indicates the realization of industry that when information is needed on this subject the Division can be helpful.

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

Pursuing the development of the adult health program of this Division, the Industrial Sight Conservation Program was continued. The policies originally adopted have been followed and successful studies completed in several industrial plants. The knowledge of the engineering phase of this program was sought and utilized in redecorating certain offices in the State House and in the development of an experimental schoolroom project in West Trenton, New Jersey. The schoolroom of functional design embodies such new features as painted walls of proper light reflectance, one solid wall of light bending blocks, abundant fluorescent lighting fixtures of special design, dark green writing boards instead of the conventional blackboard, seats arranged fan-shaped from a focal point off center at the front of the room, desks finished in a light wood color rather than dark, and the teacher's desk located at the rear of the room.

The schoolroom project is interesting in its development and the only one we know of its type in the nation.

Community-Wide Industrial Surveys

Two of these surveys were completed this year as compared to four last year. Again, increased requests for assistance limited the activities of this project. Five communities are still to be contacted who have requested such surveys. When conducting these surveys, representatives of this Division, in co-operation with the local health officer, survey all industries in the specific community for the purpose of detecting and correcting existing health hazards and developing techniques for the introduction of industrial health services to the small factories.

Radiation Survey

Additional installations of a static eliminator, employing the ionized rays produced by radium as their principal of operation, were made in factories of this State during this year. All of these installations have been declared with this Division by the manufacturer. For the first eight months, stray radiation surveys were conducted on all new installations but due to the failure of the Geiger-Muller Counter such surveys were necessarily discontinued pending the repair of the instrument now at the manufacturer.

Nuisance Complaints

During the past year, 60 nuisance complaints were investigated which necessitated extending this service 126 times. This type of request work was so heavy that it became necessary in many cases to explain that the only recourse to solution would be through the Courts of Chancery of the State. In most cases, however, tests were conducted to determine the complaint a nuisance and not a health hazard. When a health hazard was encountered as the result of one of these studies, recommendations to alleviate the hazard were forwarded the offending plant and follow-up visits made to ascertain the compliance with these recommendations. Additional personnel is needed by this Division to better study such aerial nuisances reported.

Industrial Health Bulletin

Volume 2 of the Industrial Health Bulletin was prepared during this year. This promotional activity of a concise technical bulletin comprised ten issues whose titles were: Anthrax, Vision, Phosphorus, Nuisance Dust, Magnesium, Cadmium, Carbon-tetrachloride, Medical Record System, Mercury, and Chrome. Three thousand (3,000) issues of each bulletin were printed and distributed. Requests for this bulletin have been received from points all over the world and hundreds of complimentary letters regarding it are in the files of this office. These bulletins are prepared by the personnel of this Division explaining in simple language the medical-engineering industrial health facts for the substance mentioned in the title.

Mailing List Revision

A notice was sent to each person appearing on the mailing list of this Division asking if the name, address and title were correct and if the person wished to continue to receive mailings. Those not answering were sent a final notice. Approximately 2,800 names appeared on the original list and indications are that approximately the same number will appear on the revised list. A space headed "Comments" was also provided and the return notices revealed many congratulatory remarks regarding the mailings of this Division.

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Chamber of Commerce Survey Requests

One community located in South Jersey has been endeavoring to increase the number of industries locating within its boundaries and an investigation of each new industry is conducted by the community Chamber of Commerce. At the request of this Chamber of Commerce, representatives of this Division visited industrial plants, located in nearby states but intending to locate in this community, to learn and make known to the local Chamber of Commerce what controls would be necessary for good industrial hygiene practices both within and without the proposed new industrial plants.

Visitors

Many distinguished persons visited this Division this year. Several of these were referred to us by Harvard University, Columbia University and the U. S. Public Health Service. Three nurses obtaining degrees from Columbia completed a field training course with the personnel of this Division. B. N. Lingaraju, M. B., B. S., D. P. H., from India, spent one week and Pablo P. Recarte, M. D., M. P. H., from Uruguay, spent three weeks observing the work of this Division.

GENERAL

Preliminary arrangements were made at several plants for mass chest X-ray surveys to be completed by the Division of Tuberculosis Control of this Department.

Preliminary plans and an industrial outline was prepared for a joint industrial Cancer Survey to be conducted by this Division and the Division of Cancer Control of this Department.

Programs of other Divisions, as Dental Health and Venereal Disease Control were promoted at every opportunity.

Forty-six talks were delivered during the year and thirty articles were published. One class in industrial hygiene was taught at Rutgers University in co-operation with a course in Public Health. Literature distributed to industry comprised 36,695 individual pieces during this fiscal year.

Report of the Division of Cancer Control

July 1, 1947—June 30, 1948

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

This fiscal period marks practically the second year of activity of this Division. The efforts of the Division have therefore of necessity been largely devoted to continued organization in line with adopted policies and program.

BASIC PRINCIPLES

In reviewing the imminent needs of a state-wide attack upon the cancer problem the Department has fully appreciated the desirability of avoiding duplication of effective measures already in operation under the auspices of existing non-official agencies. Conversely, the Department appreciates the significance of cancer control as a public health problem and is aware of its particular responsibilities in that direction.

In the development of the present program of the Division of Cancer Control the Department has accordingly recognized the fundamental importance of the medical, the dental, and the nursing professions in the approach to this problem. The responsibilities and prerogatives of the respective professions and of the Department have been duly regarded. Policies have been adopted by prior agreement with the profession concerned. Present emphasis is placed upon the promotion of mutual interests under joint auspices in the medical, the dental and the nursing fields of cancer control.

JOINT PATHOLOGICAL PROGRAM

In the medical field, activity of the Division has been largely limited to a joint program with the New Jersey Society of Clinical Pathologists. In setting up this project the following recommendations were made by the Society and adopted by the New Jersey State Department of Health on January 14, 1947:

- (1) That the Society establish a Tumor Registry in co-operation with the Division of Cancer Control of the New Jersey State Department of Health, to be financed by the Division.
- (2) That such a Tumor Registry shall include the physical facilities for the collection and filing of cancer case histories, tissue slides, gross pathological specimens,

photographs of pathological material, outlines of proposed treatment, a plan of follow-up of treatment, library facilities, and other pertinent data related to tumors.

- (3) That the cancer histories, tissue slides, and other data necessary for the maintenance of the Tumor Registry shall be furnished by the members of the Society of Clinical Pathologists and other physicians for permanent filing and follow-up.
- (4) That the Society shall select a Consulting Board of Tissue Pathologists who shall direct the professional activities of the Tumor Registry in co-operation with the Division of Cancer Control.
- (5) That the Division of Cancer Control shall provide laboratory facilities for the preparation of gross pathological specimens and microscopic sections for the Tumor Registry.
- (6) That the Division of Cancer Control employ a competent pathologist who shall be approved by the Consulting Board of the Tumor Registry; and whose activities shall be controlled by the Consulting Board in so far as the work of the Tumor Registry is concerned.
- (7) That the Division of Cancer Control promote and support pathological seminars for the members of the Society in co-operation with the Society.
- (8) That the Division of Cancer Control promote and support clinico-pathological conferences for the medical profession of the State in co-operation with the Society.

At the end of the fiscal period (June 1948) these recommendations have been largely fulfilled:

The Tumor Slide Registry is being maintained, the Consulting Board of Tissue Pathologists is functioning, a tumor tissue laboratory is in operation, a cancer reference library is available, and pathological seminars have been held.

In the pathological seminars the cytologic diagnosis of cancer has been emphasized. In one of the sessions, Dr. George N. Papanicolaou presented an extended discussion of his experience in this important field.

Motion picture films on cancer cytology which are the property of the Division and are available for presentation to professional audiences include the following:

- Cinematograph of Living Cells—by Warren H. Lewis, M. D.
- Various Aspects of Cells in Living Tissues—by Robert Chambers, M. D.
- Precancer Diagnosis of the Cervix by Cytology—by J. E. Ayre, M. D.

Complete details of the operation of the various features of this program have been set forth in the report of this Division for the previous fiscal year.

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CONSULTING BOARD OF PATHOLOGISTS

The Consulting Board of Tissue Pathologists appointed by the New Jersey Society of Clinical Pathologists has included the following members during this fiscal period: Nicholas M. Alter, M. D., Jersey City; Arthur R. Casilli, M. D., Elizabeth; Samuel A. Goldberg, M. D., Newark; Frank W. Konzelmann, M. D., Atlantic City; Carlos A. Pons, M. D., Asbury Park; John L. Work, M. D., Montclair; Asher Yaguda, M. D., Newark.

DENTAL PROGRAM

The New Jersey State Dental Society has formally approved a joint program with this Division which provides for fellowships in tumor pathology for qualified young New Jersey dentists and for the preparation and distribution by this Division of a booklet on cancer for dentists.

Arrangements have been made with the Army Institute of Pathology at Washington for the training of the recipients of these fellowships. Tentative copy for the cancer booklet has been approved by the Board of Trustees of the Dental Society.

ADVISORY NURSING COMMITTEE ON CANCER

An Advisory Nursing Committee on Cancer has been formally established by the State Nurses' Association, the State League of Nursing Education, and the State Organization for Public Health Nursing, for the development of a joint educational program with this Division in the field of cancer nursing care. Plans include provision of cancer scholarships for nurses by the Division and a state-wide program of cancer education among the members of the nursing profession.

The following statement of qualifications and conditions pertaining to these scholarships was formulated and adopted by the Nursing Committee at a recent meeting:

I. Cancer Consultant Nurse in Public Health:

Applicant—

- (a) must be a registered professional nurse engaged in the field of public health nursing in New Jersey.
- (b) must hold a degree in Public Health Nursing from a college or university offering an approved course in public health nursing.
- (c) must have had one year's experience in public health nursing following her degree, under qualified supervision with either an official or a non-official agency.

Beneficiary of this scholarship shall serve at least two years in the field of her specialty in the State of New Jersey.

II. Cancer Consultant Nurse in Nursing Education:

Applicant—

- (a) must be a registered professional nurse engaged in the field of nursing education in New Jersey.
- (b) must hold a degree in nursing education and/or nursing administration from a college or university approved for nursing education.
- (c) must have had at least three years' experience in teaching or supervision in an approved school of nursing.

Beneficiary of this scholarship shall serve at least two years in the field of her specialty in the State of New Jersey.

Committee members representing the New Jersey State Nurses' Association include Edna M. Antrobus, R. N., Secretary-Treasurer, N. J. State Board of Nursing, Newark; and Olive N. Northwood, R. N., Director, School of Nursing, Mountainside Hospital, Montclair.

The N. J. State League of Nursing Education is represented by Martha S. Trainor, R. N., Director of Nursing, Division of Hospitals, State Department of Institutions and Agencies, Trenton; and Eleanor C. Tilton, R. N., Director, School of Nursing, McKinley Hospital, Trenton.

The N. J. State Organization for Public Health Nursing is represented by Grace Anderson, R. N., President, S. O. P. H. N., Camden; Anna J. Haines, R. N., Director, Visiting Nurse Association, Trenton; and Alice G. Howard, R. N., Director, Visiting Nurse Association, Moorestown.

The State Department of Health is represented by Gertrude L. McLaughlin, R. N., Advisory Public Health Nurse, Bureau of Preventable Diseases of the Department.

Miss Haines serves as chairman of the committee and Mrs. Norwood is the secretary.

PROFESSIONAL TRAINING

A cancer Fellowship providing a full year's residency for qualified young New Jersey physicians is maintained at the James S. Green Memorial Tumor Clinic in Elizabeth. The present incumbent completes his residency at the end of this fiscal year as the second beneficiary of this provision.

In June, 1948, a staff nurse of the Division received a degree in public health nursing education from the University of Pennsylvania as a beneficiary of the in-service training program of the Department.

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LAY EDUCATION

Lay education in cancer has been conducted during this period in continued co-operation with the Division of Health Education.

A booklet for the general reader entitled "About Cancer" has been made available during this period for distribution without charge in cancer educational programs.

A new "talking mirror" cancer exhibit has been constructed and is scheduled for its first showing at the New Jersey State Fair in September 1948. This striking mechanism provides vocal answers to selected questions on cancer designated by the interested visitor.

Several sound films on cancer suitable for presentation to lay audiences are available on a free loan basis except for transportation charges.

PUBLIC HEALTH CANCER COUNCIL

The Public Health Cancer Council consists of representatives of New Jersey professional and civic agencies whose state-wide formal interests include the problems of cancer control.

Members serving during this period are as follows:

Mrs. Claire Ader, State Chairman of Health—New Jersey State Federation of Colored Women's Clubs, Inc.

Dr. Emil Frankel, Director, Division of Research and Statistics—New Jersey State Department of Institutions and Agencies.

Miss Anna J. Haines, R. N., Director of Trenton V. N. A.—New Jersey State Organization for Public Health Nursing.

Mr. John Hall, Executive Secretary—New Jersey Health and Sanitary Association.

Mr. Charles C. Hansbury, Manager—American Cancer Society, New Jersey Division, Inc.

Mr. Seward H. Jacobi, Assistant Research Director—New Jersey State Chamber of Commerce.

Mr. J. Harold Johnston, Executive Secretary—State Hospital Association.

Alfred Nelson, D. D. S.—The New Jersey State Dental Society.

J. Lynn Mahaffey, M. D., Director and Acting Commissioner of Health—New Jersey State Department of Health.

Mr. Carl T. Pomeroy, President—New Jersey Health Officers' Association.

Carlos A. Pons, M. D., President—New Jersey Society of Clinical Pathologists.

L. S. Snegireff, M. D., Medical Director—American Cancer Society, New Jersey Division, Inc.

J. Earle Stuart, M. D., Chief, Division of Negro Health, New Jersey State Department of Health—New Jersey State Medical Association.

Mrs. W. Andrew Wesley—American Association of University Women (New Jersey State Division).

William O. Wuester, M. D., Chairman, Advisory Committee on Cancer Control—The Medical Society of New Jersey.

DEPARTMENT OF HEALTH

PROFESSIONAL RELATIONS

The Director of the Department of Health has continued to serve during this period as a member of the Executive Committee and of the Board of Trustees of the New Jersey Division of the American Cancer Society.

The Chief of the Division of Cancer Control has served 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

July 1, 1947—June 30, 1948

By EARL G. LUDLAM, D. D. S., *Chief*

During the past year covered in this report, the dental health program in the State of New Jersey has prospered and shown considerable progress, although the obstacles to be overcome were many. Many changes in personnel occurred during this one-year period. Dr. Daniel Bergsma, M. D., M. P. H., was appointed Commissioner of Health, a new Health Council was appointed, and Dr. Earl G. Ludlam, D. D. S., on February 15, 1948, became the new Chief of the Dental Division to succeed Dr. J. M. Wisan, who accepted the call to become the Director of Division of Health Education to the American Dental Association in Chicago, Illinois. Dr. Ludlam of Camden, New Jersey, Supervisor in South Jersey, was appointed Assistant Chief on July 1, 1947, and upon Dr. Wisan's resignation was selected and approved by the Commissioner of the Department of Health, as well as the New Jersey Dental Society, as the new Chief of the Dental Division.

Another vast hindrance was the one of finances. Without going into detail at this time, it is only necessary to say that our federal and state allocations were reduced by \$38,795, or 31 per cent. This item is discussed in the report on pages 125 and 126.

These are but two of the many hardships that had to be handled, and the surmounting of these obstacles has been far from an easy task. The following pages show the various problems that have arisen and the successful manner in which they have been cared for.

The Division of Dental Health feels the task has been performed in a very satisfactory manner and with very pleasing results.

The following headings give in detail the activities of the Division for the fiscal year July 1, 1947, to June 30, 1948:

I. *Personnel*: As stated, Dr. Earl G. Ludlam became the Chief of the Dental Division on February 15, 1948. Dr. Neal W. Chilton remains as part-time Assistant Chief, concentrating his efforts on research, statistics and lecturing. The other part of the Assistant Chief position formerly held by

Dr. Earl G. Ludlam has been temporarily discontinued. The position of Supervisor in Southern New Jersey, formerly occupied by Dr. Ludlam, still remains vacant. Knowing the valuable work accomplished by our other three Supervisors, namely, Dr. Frederick Lauer, Dr. Edward de Monseigle, and Dr. Armand Rose, I am very desirous of having a Supervisor appointed in the near future for the southern counties of the State. *Direct supervision* of our program activities is an absolute necessity. At present Mrs. Olive D. Stone, Dental Aide in Camden and Gloucester Counties, and Mrs. L. E. Bedwell, R. N., Field Representative in Sussex, Warren, and Morris Counties, are performing their duties in an excellent manner in their respective communities. Since January there have been several changes in the Central Office personnel. The position of senior clerk has been vacant since February 15, 1948. The position of clerk-typist has been vacant and then filled by a new employee. During the past year there have been many requests from dentists throughout the State for positions as operating dentists in the Dental Health Program, but due to limitations of budget, only 11 new operators were added to the present list and 19 voluntarily resigned, bringing the total number of operating dentists for the year to 100. The total listing of all personnel for the dental program will be found on page 124.

II. *Finances*: Finances have been quite a problem. In the year 1946-47 the federal and state budgets combined amounted to \$124,250, and local contributions increased this figure by approximately \$30,000. For the fiscal year 1947-48 the federal and state budget was greatly reduced and the combined amount allocated was \$85,454, or a reduction of \$38,795 (local contributions were approximately \$34,150).

Because of these financial limitations it has not been possible to expand the existing programs, or initiate new ones, with but very few exceptions. A request for an appropriation for a mobile clinic for Burlington County was denied in the 1948-49 budget.

I am pleased to report that with these limitations in funds, our reports show an increase in work accomplished and a balanced budget on June 30, 1948. A detailed breakdown of these figures appears on pages 125 and 126.

III. *Treatment Programs*: The new mobile clinic purchased for Atlantic and Cape May counties was put in operation this past year and Dr. Edgar Gattegno was appointed dental operator for this unit. The working schedule, the salary of assistant, and supplies for this clinic are shared equally between these two counties. The salary of dentist (hourly basis) is paid by Division of Dental Health.

The new mobile clinic purchased for Gloucester County was also put in operation in January of the past year and Dr. Edward Pointer was appointed dental operator.

DIVISION OF DENTAL HEALTH

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The Warren County mobile clinic, operated by Dr. Blumenfeld, began operation during this past year also. The complete listing of all mobile clinics will be found on page 123.

I am pleased to report that all mobile clinics will be in operation during the coming summer. A summer schedule has been designed for each, and all schedules have been approved by Dr. Bergsma, the Dental Health Committee and Dr. Ludlam.

The private office and clinic program reports show considerable progress during the past year.

The station wagon in Sussex County operated by Mrs. Johnson, R. N., performed an almost impossible task, covering her territory during the bad weather encountered this past winter.

For the coming year, a complete and thorough prophylaxis, and a series of four topical applications of two per cent sodium fluoride solution, will be given to each child presenting himself or herself for treatment.

For a detailed report as to treatment programs, see pages 127, 128 and 129.

IV. *Educational Activities*: In addition to a continuation of the educational activities of the Division, as listed in the annual report of 1946-47, the Division of Dental Health has participated in the following educational activities during 1947-48:

Course in Dental Health Education at Glassboro Teachers College.

Course in Dental Health Education at Seton Hall.

Course in Dental Health Education at Paterson Teachers College.

Symposium on Dentistry for children at the Greater Philadelphia Dental Meeting arranged through the New Jersey Society of Dentistry for Children.

Lecture in the postgraduate course in Pedodontics at the Thomas W. Evans Museum and Dental Institute, School of Dentistry, University of Pennsylvania.

Lectures in the post-graduate course in Pedodontics at the College of Dentistry, New York University.

Lecture on the "Topical Application of Sodium Fluoride" at the meeting of the New Jersey Health and Sanitary Association.

Co-operation with the Division of Health Education of the American Dental Association on the evaluation of dental health education materials.

Participation in the second Conference on Dental Health, sponsored by the New Jersey State Dental Society, April 20, Atlantic City.

Co-operation with the Division of Cancer Control of the New Jersey State Department of Health in a projected program of professional education for the detection and control of malignancies in the oral cavity. The program is outlined as follows:

1. A paper on the diagnosis of oral malignancies, by Dr. Brokaw, Chief of the Division of Cancer Control, was published in the July issue of the *Journal of the New Jersey State Dental Society*.

2. A pamphlet containing illustrations of typical malignant oral lesions, prepared by the Division of Cancer Control in co-operation with the Division of Dental Health, to be distributed to all dentists in this State.

3. Scheduling of authoritative speakers on the subject of oral malignancies before the component dental societies of New Jersey.

4. Short intensive courses on the recognition, treatment and pathology of oral cancer, to be given at leading cancer institutions in New York and Philadelphia, for interested New Jersey dentists.

Conference on dental health education methods for parents, teachers, nurses, and school administrators in Camden.

Children's Dentistry issue of the *Journal of the New Jersey State Dental Society*, by the staff of the College of Dentistry, New York University (January 1948).

A paper on the public health aspects of periodontology to be presented before the Section on Periodontology of the American Dental Association in Chicago, September 1948.

Pamphlets entitled "Dental Plan for Low Income" have been revised and reprinted and are now available for distribution.

Poster, "Donald Duck," being revised and will soon be available.

Purchase of 2,000 Pinocchio Certificates for distribution to children after completion of dental treatments.

"Dental Health Education for Children-Primary Grades" and "Dental Health Education for Children-Intermediate Grades," are now being printed and will soon be available.

V. *Investigatory*: The third paper in the series, "Studies in Dental Public Health Administration: III. Administrative Factors in a Dental Program as Measured by Lost Time Analysis," was published in the *Journal of the American Dental Association* in January 1948.

A survey was performed, in co-operation with the Board of Health, Health and Welfare Council and Board of Education of New Brunswick, of the dental conditions of the children in the New Brunswick elementary public and parochial schools.

The report of the survey of the dental facilities of Passaic County, made in 1947 at the request of the Medical and Dental Societies of the County of Passaic, was presented to the requesting organizations.

A study is being undertaken to determine the effects of the addition of one part per million of sodium fluoride to the drinking water of the City of

Morristown. This study is under the direct supervision of the Division of Dental Health, in co-operation with the City of Morristown and the Tri-County Dental Society. The teeth of 1,300 children in this city have been examined prior to the addition of the fluorine to the public water supply. These children will then be examined periodically over the next decade to determine the effects of this chemical on the teeth. This will make the eighth such study on fluorination of public water supplies instituted throughout the county. The examinations and processing of the data will be conducted slightly differently, however, to obtain information which will be more readily applicable to the State of New Jersey.

Preliminary plans are being prepared for a study of the public health aspects of periodontal disease in this State. The first step has been the sending of a circular letter to the various dental colleges in this country for data on the distribution of periodontal diseases of various types in different parts of the country. It is hoped that co-operation and participation of the necessary organizations will be obtained in order to complete such a study, which will be the first of its kind in this country.

A study of the statistical aspects of dental and public health research, to be conducted under the auspices of the Division of Dental Health, Columbia University and the Navy Dental Research Program, is being contemplated.

In conclusion, the changes in personnel, limitations in financial appropriations, etc., will in no way deter the Division from continuing the excellent work it has performed in the past. We shall continue forward, initiating new phases of public dental health as the occasion arises.

The following is a complete listing of the mobile units within the State of New Jersey during the past year.

<i>County</i>	<i>Name of Operator</i>	<i>Type</i>
Camden	Dr. William Laub	Self-propelled
Atlantic and Cape May....	Dr. Edgar Gattegno	Self-propelled
Gloucester	Dr. Edward Pointer	Self-propelled
Warren	Dr. William Blumenfeld....	Self-propelled
Ocean	Dr. Maney Horn	Trailer
Somerset	Dr. Saul Gale	Trailer
Sussex	Mrs. E. Johnson, R. N. ...	Station wagon for transportation of children

All mobile units will be in operation during the months of July and August, as well as during the months of the school year.

The Somerset unit was repaired this June at a cost of \$500. Each unit will in turn be overhauled and repaired as the need presents itself in the future.

DEPARTMENT OF HEALTH

All units are performing an excellent task and showing a very high percentage of completed cases—a goal we are constantly striving to obtain.

PERSONNEL

- 1—Chief, Division of Dental Health
 - 1—Assistant Chief (part-time basis)
 - 3—Dental Supervisors
 - 1—Dental Aide
 - 2—Field Representatives
 - 1—Senior clerk-stenographer—resigned 2/14/48 and unable to secure replacement—position vacant
 - 2—Clerk-typists
- 100—Operating dentists
 - 9—Full-time dentists
 - 91—Part-time dentists

Items		State	Federal
Salaries:			
Chief, Dr. J. M. Wisan (7½ months at \$6,750.00 per year)	\$4,218.75		
Chief, Dr. E. G. Ludlam (4½ months at \$6,000.00 per year)	2,250.00		
Total salaries		\$6,468.75	
Field Representative, Mrs. L. E. Bedwell		2,400.00	
Field Representative, Mr. J. Hutchinson		2,040.00	
Dental Aide, Mrs. O. D. Stone		1,800.00	
Clerk-typist, Mrs. M. McCoy			\$1,440.00
Clerk-typist, Mrs. M. Neumann			1,320.00
Senior clerk-stenographer, Miss P. Kendall (4 months)			600.00
Senior clerk-stenographer, Mrs. G. Gering (3½ months)			525.00
Position of senior clerk-stenographer vacant for 4½ months			
Operating dentists		49,672.22	
Dental Aide (amount transferred to operating dentist for purpose of conducting Morris County fluorine survey)			500.00
Paterson, dentist salaries			6,200.00
North Arlington, dentist salary			3,400.00
Supervisors			3,944.00
Others:			
Laboratory supplies			450.00
Travel		650.00	870.00
Maintenance of trailers		1,000.00	
Dental health educational material		1,000.00	
Stationery and office supplies			200.00
Printing		375.00	400.00
In-service field orientation			200.00
Total		\$65,405.97	\$20,049.00
State funds	\$65,405.97		
Federal funds	20,049.00		
Local contributions (approximately)	34,150.00		
Total	\$119,604.97		

BUDGET—DENTAL HEALTH DIVISION
NEW JERSEY STATE DEPARTMENT OF HEALTH—1939-1948

	1939-40		1940-41		1941-42		1942-43		1943-44		1944-45		1945-46		1946-47		1947-48	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Federal contributions																		
(U. S. P. H. S.)	\$5,240	100	\$12,968	80	\$14,615	46	\$14,972	46	\$15,021	29	\$16,270	21	\$19,360	18	\$23,233	15	\$20,049	17
State contributions . . .	0	0	0	0	12,000	38	12,187	37	51,795	69	50,900	66	64,707	61	101,017	65	65,406	55
Local contributions . . .	0	0	3,200	20	4,900	16	4,900	17	8,500	11	9,967	13	22,800	21	30,000	20	34,150	28
Total	\$5,240	100	\$16,168	100	\$31,515	100	\$32,059	100	\$75,316	100	\$77,137	100	\$106,876	100	\$154,250	100	\$119,605	100

REPORT—DENTAL TREATMENT PROGRAM

July 1, 1947, to June 30, 1948

Program	Initiated	Type of Program*	Dentist	Communities	Operating Time (Hours)	Children Treated	Visits	Examinations	Extractions		Permanent Fillings		Material		Temporary	Prophylaxis	X-ray	Linings	Fluorine Treatment	Others**	Total Operations	Cases Completed	Percentage of Completions
Atlantic and Cape May County Program	1947	Mo. Cl.	1	13	851	445	1,519	871	63	914	1,749	2,782	1,626	89	45	449	5	0	0	380	4,213	273	61.3
Bergen County Program	1943	P. O.	4	6	219	102	361	98	28	65	349	473	359	49	20	84	14	36	73	35	664	63	61.7
North Arlington	1940	Cl.	1	1	771	417	1,855	970	10	116	1,482	2,075	1,331	154	43	915	300	42	0	596	3,414	387	92.8
Rutherford	1945	Cl.	1	1	117	57	138	964	6	7	145	218	149	3	2	59	6	4	0	0	290	54	94.7
Burlington County	1942	P. O.	9	8	289	434	670	367	77	335	597	796	563	58	21	206	2	42	16	5	1,416	173	39.8
Camden County Program ..	1943	Mo. Cl.	1	11	1,039	693	2,039	2,068	45	595	3,240	4,411	3,102	138	19	669	313	397	0	0	6,032	641	92.4
Lawnside	1944	P. O.	1	1	33	64	98	66	7	55	43	57	40	2	4	76	0	0	0	0	195	34	53.1
Cape May County Program ..	1942	P. O.	1	1	33	36	45	33	2	8	100	136	95	5	0	29	0	5	40	2	175	18	54.5
Cumberland County	1942	P. O.	10	13	738	441	1,128	436	80	575	1,204	1,591	1,147	62	25	334	96	161	56	294	2,685	268	60.7
Essex County Orange Program	1944	Cl.	2	1	753	427	1,554	761	29	185	1,508	2,284	1,581	68	64	753	64	272	0	395	3,315	386	90.3
Montclair	1947	Cl.	2	1	868	436	1,926	707	19	200	1,492	2,413	1,228	365	148	694	78	213	28	420	3,494	262	60.0
Gloucester County Program ..	1947	Mo. Cl.	1	3	582	238	1,087	925	59	348	2,175	2,683	2,161	10	2	227	380	55	0	1	3,697	214	89.9
Hunterdon County Program ..	1940	Cl.	1	27	336	369	1,161	763	30	123	895	1,236	1,000	83	139	45	19	180	0	113	1,453	249	67.4
Middlesex County Program ..	1942	P. O.	4	5	248	224	493	103	46	165	377	517	336	38	15	93	12	74	35	315	833	51	22.7
Kiddie Keep Well Camp	1942	Tr.	1	1	191	268	554	386	13	219	161	210	186	0	2	268	26	16	0	0	736	78	20.1
Deans	1945	Cl.	2	1	134	59	244	64	19	87	229	290	202	21	58	53	0	11	0	0	399	31	52.5
Monmouth County Program ..	1941	P. O.	13	14	1,076	602	1,922	1,792	70	559	2,285	2,990	2,120	205	52	583	236	164	0	0	4,438	487	80.8
Matawan	1945	Cl.	2	1	141	171	272	85	8	25	239	323	241	11	46	70	0	0	0	0	426	38	22.2
Union Beach	1946	Cl.	1	1	118	59	236	154	17	47	185	226	155	31	3	39	1	27	0	0	330	28	64.6
Morris County Program	1943	P. O.	20	20	832	440	1,458	780	102	360	1,503	2,923	1,427	174	123	319	138	177	140	217	2,888	217	49.3
Ocean County Program	1944	P. O.	6	4	336	131	520	134	67	176	494	636	476	84	12	98	96	49	0	3	1,073	77	58.7
Trailer	1946	Tr.	1	2	369	200	603	12	25	169	435	549	404	32	19	115	6	151	0	232	855	45	22.5
Passaic County Program	1945	P. O.	1	1	42	22	73	22	5	35	72	108	82	7	3	19	4	0	0	0	171	16	72.7
Bloomington	1946	Cl.	0	1	90	36	123	51	12	43	153	250	237	0	2	57	0	9	89	1	302	22	61.1
Wanaque	1944	Cl.	0	1	48	37	71	49	1	11	56	78	75	0	0	53	0	2	58	0	143	17	45.9
Paterson	1941	Cl.	2	1	2,157	1,033	4,198	1,490	116	929	4,295	5,996	4,861	279	44	1,840	800	263	1,528	375	9,771	969	96.7
Somerset County Program ..	1942	Tr.	1	14	759	546	1,133	3,426	47	333	1,077	1,669	1,177	73	25	674	47	197	0	1	2,770	477	87.3
Sussex County Program ..	1942	P. O.	7	20	329	248	544	234	37	269	749	941	707	73	21	175	5	18	46	129	1,427	124	50.0
Union County Program																							
Clarktownship	1943	Cl.	1	1	168	87	291	529	3	79	231	304	252	3	9	49	65	0	68	0	500	48	51.1
Kenilworth	1945	Cl.	1	1	188	48	257	499	4	51	218	271	208	1	11	71	0	0	207	5	397	20	41.6
Warren County Program ..	1947	Mo. Cl.	1	11	989	169	1,647	2,736	21	287	1,011	1,481	1,057	35	171	227	299	300	131	964	2,315	125	73.9
Totals (18 counties) ..			100	189	14,891	8,539	28,220	21,597	1,077	7,257	28,781	40,917	28,585	2,163	1,148	9,343	3,096	2,815	2,519	4,483	60,790	5,932	69.4

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

** Includes miscellaneous treatments such as: Vincent's infection, Guttapercha, Post operative, Root canal, Anesthesia for extraction or cavity preparation.

REPORT—DENTAL TREATMENT PROGRAM, NEW JERSEY STATE DEPARTMENT OF HEALTH—1940-1948

County	Year*	Type of Program	Dentists	Communities**	Operating Time (Hours)	Children Treated	Visits	Examinations	Extractions		Permanent Fillings		Material		Temporary	Prophylaxis	X-ray	Linings	Fluorine Treatment	Others	Total Operations	Cases Completed	Percentage of Completions
									Perm.	Decid.	Tooth Filled	Surface Filled	Amalgam	Silicate									
number of counties	2	1940-41	CL	12	25	1,232	839	2,843	979	423	1,596	0	0	2,846	77	55	686	0	0	0	6,607	320	39.2
number of counties	8	1941-42	P. O. Tr. CL	15	48	3,153	2,086	8,297	1,892	613	4,685	0	0	6,838	276	399	1,705	2	0	0	14,410	1,259	60.2
number of counties	11	1942-43	P. O. Tr. CL	25	109	4,739	2,846	10,150	3,455	879	5,286	0	0	9,066	590	887	1,888	0	0	0	19,018	1,961	68.9
number of counties	16	1943-44	P. O. Tr. CL	49	150	6,277	3,328	12,691	6,277	888	4,242	0	0	10,785	693	1,065	2,568	610	0	0	20,967	2,294	68.9
number of counties	10	1944-45	P. O. Tr. CL Mo. CL	58	154	8,046	1,679	17,754	7,666	958	5,264	0	0	13,446	996	1,249	3,640	1,032	0	0	26,459	3,090	65.8
number of counties	17	1945-46	P. O. Tr. CL Mo. CL	86	171	10,575	5,732	23,951	11,826	1,123	5,795	0	0	21,389	1,513	1,468	6,096	2,341	0	0	38,215	3,934	68.6
number of counties	17	1946-47	P. O. Tr. CL Mo. CL	108	188	15,821	7,713	28,499	24,484	1,382	6,821	0	0	27,666	2,724	1,748	8,080	2,491	0	0	49,164	4,932	63.9
number of counties	18	1947-48	P. O. Tr. CL Mo. CL	100	189	14,891	8,539	28,220	21,597	1,077	7,257	28,781	40,017	28,585	2,103	1,148	9,343	3,096	2,815	2,519	60,790	5,932	69.4

* Code for Type of Program: P, O.—Private office; CL—Clinic; Tr.—Trailer with dental equipment; Mo. CL—Mobile clinic truck with complete 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. After July 1, 1945, it was decided to list only school districts.

Program	Type of Program	Dentist Hours		Number of Children Treated		Percentage of Completed Cases		Number of Permanent Extractions per 100 Children Treated		Number of Operations per Child	
		1946-47	1947-48	1946-47	1947-48	1946-47	1947-48	1946-47	1947-48	1946-47	1947-48
Atlantic and Cape May Counties	Mo. Cl.	....	851	....	445	....	61.3%	....	14.1	....	9.4
Bergen County Program	P. O.	392	219	118	102	43.2%	61.7	50.8	27.4	9.0	6.5
North Arlington	Cl.	733	771	436	417	94.2	92.8	4.1	2.3	6.7	8.1
Rutherford	Cl.	174	117	60	57	76.6	94.7	23.3	10.5	6.2	5.0
Burlington County Program	P. O.	287	289	336	434	51.4	39.8	28.5	17.7	3.2	3.2
Camden County Program	Mo. Cl.	1,028	1,039	567	693	70.8	92.4	15.5	6.4	8.3	8.7
Lawnside	P. O.	114	33	122	64	52.4	53.1	18.8	10.9	3.6	3.0
Cape May County Program	P. O.	69	33	72	36	76.3	54.5	13.8	5.5	3.8	4.8
Cumberland County Program	P. O.	678	738	341	441	39.2	60.7	20.8	20.1	5.5	6.0
Essex County Orange Program	Cl.	736	753	314	427	86.6	90.3	14.6	6.7	8.5	7.7
Montclair	Cl.	852	868	326	436	88.6	60.0	15.0	4.3	6.1	7.8
Gloucester County Program	Mo. Cl.	....	582	....	238	....	89.9	....	24.7	....	15.5
Hunterdon County Program	Cl.	454	336	420	369	69.9	67.4	9.5	8.1	3.2	3.9
Mercer County, Hamilton Township	Cl.	657	....	272	....	54.0	....	32.7	....	5.5	....
Middlesex County Program	P. O.	388	248	190	224	35.2	22.7	24.2	20.5	5.0	3.7
Kiddie Keep Well Camp	Tr.	355	191	263	268	33.4	29.1	14.8	4.8	4.2	2.7
Deans	Cl.	230	154	102	59	57.8	52.5	13.7	32.2	4.9	6.7
Monmouth County Program	P. O.	1,589	1,076	698	602	78.5	80.8	16.4	11.6	7.1	7.3
Matawan	Cl.	187	141	102	171	27.4	22.2	10.7	4.6	5.8	2.4
Collier Foundation	Cl.	158	....	102	....	33.3	....	7.8	....	2.4	....
Union Beach	Cl.	....	118	....	59	....	64.4	....	28.8	....	5.5
Morris County Program	P. O.	1,570	832	571	440	50.7	49.3	28.8	23.1	6.6	6.5
Ocean County Program	P. O.	348	336	148	131	37.8	58.7	34.4	51.1	6.7	8.1
Trailer	Tr.	793	369	112	260	70.5	22.5	24.1	12.5	12.3	4.2
Passaic County Program	P. O.	92	42	18	22	66.6	72.7	72.2	22.7	12.0	7.7
Bloomfield	Cl.	87	90	44	36	15.9	61.1	43.1	33.3	8.2	10.0
Wanaque	Cl.	189	48	72	37	72.2	45.9	22.2	2.7	8.9	3.8
Paterson	Cl.	1,888	2,157	896	1,033	60.8	96.7	16.5	11.2	8.8	9.4
Somerset County Program	Tr.	919	789	575	546	86.9	87.3	4.8	8.6	4.3	5.0
Sussex County Program	P. O.	381	329	235	248	59.5	50.0	21.7	14.9	6.0	5.7
Union County Clark Township	Cl.	245	168	126	87	52.3	51.1	11.9	3.4	5.3	5.7
Kenilworth	Cl.	177	188	47	48	40.4	41.6	4.2	8.3	6.4	8.2
Warren County Program	Mo. Cl.	51	989	28	169	28.5	73.9	35.7	12.4	5.6	13.6
Totals (18 counties) .....	....	15,821	14,891	7,713	8,539	63.9%	69.4%	17.9	12.6	6.3	7.1

Code for Type of Program: P. O.—Private office; Cl.—Clinic; Tr.—Trailer (moved by another vehicle); Mo. Cl.—Mobile clinic (travels on own power).

INCREASE OF ACTIVITIES**Dental Treatment Program of the New Jersey State Department of Health—1939-1948**

	1939	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48
Number of children treated	0	839	2,088	2,846	3,613	5,094	5,732	7,713	8,539
Number of communities included	0	25	59	109	160	171	171	188	189
Number of counties included	0	2	8	10	16	17	17	17	18
Number of mobile units	0	0	1	1	2	2	3	3	6

During 1948, 69.4 per cent of the children included in the program were given all necessary fillings and extractions.

Report of the Division of Maternal and Child Health

For the Calendar Year 1947

By JULIUS LEVY, M. D., *Chief*

MATERNAL MORTALITY

The maternal mortality rate in New Jersey consistently continues to decrease. In 1947 there were 105 maternal deaths which makes a rate of less than one per 1,000 live births.

If the 1937 rate of 3.2 had prevailed, there would have been 234 more maternal deaths in 1947, or a total of 339 instead of 105.

If the 1927 rate of 6.1 had prevailed, there would have been 542 more maternal deaths in 1947.

One of the major factors in reducing the maternal mortality has been the educational program directed to mothers, stressing the importance of proper nutrition, hygiene and early medical care during pregnancy.

Another factor of importance has been the investigation of each maternal death by our field physicians. These investigations have included a discussion with the attending physician, a study of the record of the case, the completion of a detailed report and, in many instances, the presentation of the case before county medical societies for general discussion.

The statistical study showed that the maternal deaths during 1947 were attributable to the following causes:

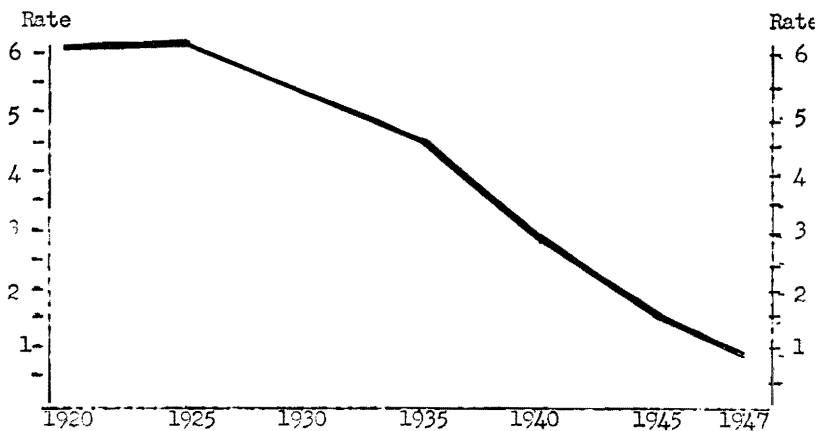
	<i>Per Cent</i>
Hemorrhage, trauma, shock	40
Infection	29
Toxemias	22
Other causes	9

INFANT MORTALITY

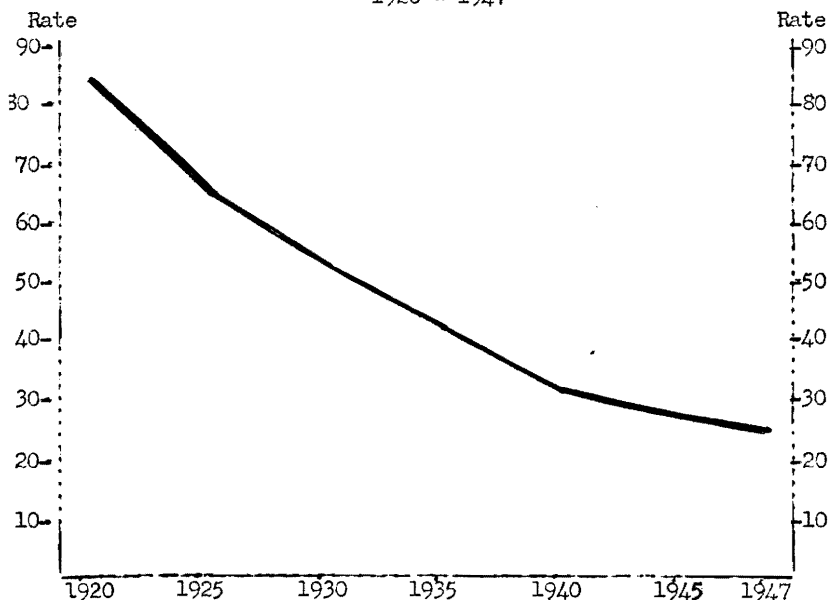
The infant mortality rate for 1947, although the same as the 1946 rate in round numbers (28), is fractionally slightly less. This reduction in the infant mortality rate is remarkable in view of the fact that there were over 11,000 more births in 1947 than in 1946.

If the 1937 rate of 39 had prevailed, there would have been 1,178 more infant deaths in 1947.

MATERNAL MORTALITY CHART
Rates Per 1,000 Live Births
1920 - 1947



INFANT MORTALITY CHART
Rates Per 1,000 Live Births
1920 - 1947



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If the 1927 rate of 61 had prevailed, there would have been 3,512 more infant deaths in 1947, or a total of 6,471 deaths instead of 2,959.

The lowest infant mortality rate for 1947 among the counties of the State was the rate of 21 recorded in Bergen County. The highest rate, 37 deaths per 1,000 live births, was observed in rural Salem County.

Of the cities with more than 1,000 births per year, Irvington had the lowest rate of 20. Passaic City with a rate of 37 was high.

Prematurity among the prenatal and natal causes of death took most of the infant lives.

HOME DELIVERY NURSING SERVICE

The use of the home delivery nursing service has decreased. There were only 137 home deliveries where 14 registered nurses assisted the physician. One nurse from the Visiting Nurse Association assisted at one delivery. Obstetrical consultants who are available for home deliveries were called in three cases.

BABY KEEP-WELL STATIONS

There were 179 Baby Keep-well Stations conducted under the supervision of the Division of Maternal and Child Health. Physicians served in 123 of these stations. Doctors in 104 of the stations were paid from Social Security funds. In 19 of the stations, doctors in attendance were paid locally or served without compensation.

The doctors in the stations made 12,368 examinations of infants and 5,567 of pre-school children.

EDUCATIONAL ACTIVITIES

Nurses under the supervision of the Division met regularly in conferences with their district supervisors to discuss the various aspects and problems of the maternal and child health work. Guest speakers also presented such topics as Care of the Premature Baby, the Rh Factor, Nutrition, and Prenatal Care. The staff of the Division also met regularly for conferences to discuss the many aspects of maternal and child health work.

Courses in the Understanding, Care and Guidance of Children were given to an enrollment of 90 nurses under the auspices of Seton Hall College. Dr. Levy and Dr. Esty were the chief lecturers.

AUDIOMETER

The audiometer for testing the hearing of school children was under repair frequently during the year. It has outworn its usefulness and will not be used during the coming year. No plans have been made to replace it, because many

of the cities and counties have purchased audiometers and may be able to cover their needs. A total of 11,369 children were given their initial test. There were 1,827 re-tests made and the 1,786 children found to have hearing defects were referred to their family physicians for care.

MATERNITY HOMES

Licenses for the 14 maternity homes were renewed by the State Department of Health. In accordance with the Hospital Licensing Act, maternity homes with more than one bed will now be licensed by the Department of Institutions and Agencies, those with only one bed will continue to be licensed by the State Department of Health. However, the Division of Maternal and Child Health will continue the inspections and general direction of the homes.

EXTENSION OF ACTIVITIES

Of the 257 field nurses under the supervision of the Division of Maternal and Child Health, 176 were paid entirely by the communities in which they work, 12 were paid entirely by the State, and 69 were paid partly by the State and partly by the communities in which they work.

The 257 public health nurses had under their supervision 14,703 expectant mothers, 22,850 post-partums, 46,624 infants, 53,009 children between one and six, and 141,987 school children.

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

South Bound Brook	Hawthorne
Bound Brook	Dumont
Bridgeton	

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

- Atlantic County*—Absecon, Linwood.
- Bergen County*—Park Ridge, Washington Township.
- Burlington County*—Burlington.
- Camden County*—Bellmawr, Gloucester.
- Cumberland County*—Commercial Township.
- Gloucester County*—East Greenwich Township, Logan Township, Swedesboro, Franklin Township, National Park, Harrison Township, South Harrison Township.
- Morris County*—Mine Hill.
- Mercer County*—Ewing Township.
- Salem County*—Elmer.
- Somerset County*—Bridgewater Township.
- Sussex County*—Sussex, Green Township, Newton.
- Warren County*—Belvidere, Hackettstown, Oxford.

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STATISTICAL SUMMARY OF THE 257 NURSES' WORK

Home visits by the nurses	510,404
To expectant mothers	43,521
To post-partums	53,896
To infants	199,870
To children 1 to 6	156,536
To school children	56,581
Visits to Baby Keep-well Stations	51,063
By babies	31,834
By children 1 to 6	19,229
Child Hygiene Leagues (classes conducted)	239
Dental sessions, nurse assisting	605
Classes for mothers conducted by nurses	24
Children under one year of age immunized	11,117
Children one to five years of age immunized	6,931
Children vaccinated	62,532
School children supervised	141,987
(Inspections—annual, assisting doctor or general)	763,229

ILLEGITIMATE BIRTHS

There were 2,476 births out-of-wedlock among New Jersey residents. This represented 2.3 per cent of the total births for the State, the same as in 1946. Of the mothers, 4 per cent were under 15 years of age; 35 per cent were between 15 and 20; 35 per cent were between 20 and 25; 15 per cent were between 25 and 30; 10 per cent were over 30.

MIDWIFERY

There were 161 licensed, registered midwives in New Jersey in 1947, or 16 less than there were in 1946. Of these, 146 were supervised by the State Department of Health and 15 by a local department.

Of the 161 midwives, 82 delivered no cases during the year, 66 delivered less than 12 cases, and 13 delivered more than 12 cases.

Although the total births in the State increased, the total delivered by midwives decreased. The midwives delivered only .4 per cent of the total births.

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

Acceptance of new cases for maternity care under this program ceased after July 1, 1947. The only cases authorized after that date were for pregnancies that occurred previous to July 1. Infant care will be available for those born by April 1948 until they reach the age of one year. From the time the program for the benefit of servicemen's wives and infants became effective in April 1943 until the end of June 1947 there were 30,597 maternity cases and 2,996 infant cases authorized for care.

Report of the Negro Health Program

July 1, 1947—June 30, 1948

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

Community organization for better health remains the motivating concept for planning and executing the various programs that co-ordinate the services of the Bureaus and Divisions of the Department of Health. This program recognizes the need to interpret available health services and to develop individual health consciousness and community interest.

NURSING SERVICE

Our generalized nursing program has played an important part in the development of various programs for better health for individuals and the community. Our nurses serve as instructors, educators and counsellors. This is particularly true in the rural South Jersey area where there is a paucity of the accepted services usually found in urban cities. The nurses help individuals through home visits to understand and share responsibility in solving personal, family and occupational health problems. Their functions in this state-wide program in accordance with the administrative policies of our health department are:

1. Interpretation of local available facilities and current community services; for example, community X-ray surveys, pre-school clinics and health educational meetings.
2. Learning of family health status and health problems so as to offer assistance.
3. Directions to seek private physician, clinic or hospital care.
4. Referral to proper agencies, such as Commission for Blind, Commission for Crippled Children, Tuberculosis Leagues, etc.
5. Organization and promotion of health educational meetings with local organized groups and agencies, official and unofficial.

During the past year our three nurses made a total of 979 home visits in widely scattered areas throughout the State, particularly in the South Jersey area, helping families and individuals previously unreached.

They also arranged interviews with school officials, Y. M. and Y. W. C. A. directors, health officials, ministers and private physicians for the promotion of various community health programs. A total of 143 such conferences was held.

HEALTH EDUCATION

Health education an important service of this modern public health program was promoted through the media of health meetings, newspaper articles, radio broadcasts and the distribution of health pamphlets. A total of 49 health meetings was held during the year, reaching approximately 5,183 teen-agers and adults. These meetings were held in churches, Y. M. and Y. W. C. A.'s, and community centers and schools. Physicians of our Speakers' Bureau gave the lectures, which were sometimes supplemented with health films. Important facts about community sanitation, diseases such as tuberculosis and venereal diseases, cancer and discussions on sex relations and petting were presented. We co-operated with Mrs. Margaret Zealand, Nutritionist, in the promotion of education and the distribution of literature relating to proper nutrition.

Articles on various diseases appeared currently in the monthly newspaper, *The Trenton Bulletin*, which is disseminated throughout the State.

Radio broadcasts were held periodically as part of publicity for community chest X-ray surveys and national celebrations such as National Public Health Nursing Week and National Negro Health Week.

CASE-FINDING

A total health program to be successful requires more than health education; it requires also the satisfactory development of demonstrative procedures, such as community chest X-ray surveys, where the general public participates. Our program enjoyed close working relations with the Bureau of Tuberculosis Control in correlating community surveys with industrial chest X-ray surveys, so that not only the plant worker but his family also could receive a chest X-ray examination. This was true in Atlantic City, Pleasantville, Camden, Berlin, Vineland, Bivalve, Port Norris, Princeton, Trenton, Morristown, Bridgeton, Paulsboro, Woodbury, Pennsville, Pennsgrove and Salem. Such a community project requires a satisfactory educational campaign, teaching the value of a periodic examination of the chest when apparently well. This must be done through both group and individual approach. Conferences were held by the writer with health officers, local and district, health league secretaries, Visiting Nurse Association executives and prominent laymen for the promotion of publicity and to discuss details for adequate follow-up of cases needing further study. A total of 16 surveys was held this year and 17,329 persons were X-rayed. The films were read

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by Dr. Pugh of the Bureau of Tuberculosis, and follow-up procedures were handled by that Bureau and the local county tuberculosis and health leagues.

As part of our case-finding program, 148 children of the Lawnside Public School were patch tested. Those with positive reactions (approximately 45) were X-rayed during the community survey in Camden. As a rule, children under 16 years of age are not included in the community X-ray surveys.

IMMUNIZATION PROGRAM

The annual immunization clinics were held in Port Norris and Haleyville under the leadership of Mrs. Clara Cossaboon and Mrs. Mae Hires of the Bureau of Maternal and Child Health. The writer administered combined diphtheria and whooping cough toxoid to 57 pre-school children and vaccinated 90 pre-school and school children. The parents of these children are in the low-wage-earning group and this preventive measure would not be enjoyed by them if not offered by the State.

SUMMARY

A statistical record is included with this report. There are no startling accomplishments, but it is to be remembered that the results of any health program cannot always be measured adequately statistically.

It should also be pointed out that the services of this program are offered to all groups, but our efforts are concentrated in certain sections of the communities where the need is greatest and which statistics prove have been neglected previously.

DEPARTMENT OF HEALTH

<i>Towns or Cities</i>	<i>Number Health Meetings</i>	<i>Approx. Att'n</i>	<i>Total X-rayed</i>	<i>Immunization</i>		<i>Home Visits</i>	<i>Lit. Dist.</i>
<i>Atlantic County</i>							
Atlantic City	4	1,220	3,352	...	...	65	...
Pleasantville	1	40	825	...	...	20	...
<i>Camden County</i>							
Camden	4	495	3,102	...	...	180	...
Berlin .....	...	...	452	...	...	40	...
Lawnside	1	35	...	6	6	135	...
Jericho .....	...	...	...	...	...	40	...
<i>Cumberland County</i>							
Bridgeton	1	80	1,609	...	...	10	...
Bivalve .....	...	...	137	...	...	...	...
Haleyville .....	...	...	...	16	46	...	...
Port Norris .....	...	...	321	35	38	48	...
Vineland .....	...	...	2,947	...	...	31	...
<i>Essex County</i>							
East Orange	1	40	...	...	...	...	...
Bloomfield	1	46	...	...	...	14	...
Montclair	1	45	...	...	...	...	...
Orange	1	55	...	...	...	...	...
Newark	4	1,165	...	...	...	8	...
<i>Gloucester County</i>							
Glassboro	3	194	...	...	...	76	...
Paulsboro .....	...	...	232	...	...	8	...
Woodbury .....	...	...	194	...	...	44	...
<i>Hudson County</i>							
Jersey City	2	120	...	...	...	...	...
<i>Mercer County</i>							
Princeton .....	...	...	1,686	...	...	38	...
Trenton	5	295	...	...	...	3	...
<i>Middlesex County</i>							
Perth Amboy	1	25	...	...	...	...	...
Carteret	1	25	...	...	...	8	...
<i>Morris County</i>							
Morristown .....	...	...	1,237	...	...	...	...
<i>Passaic County</i>							
Passaic	1	40	...	...	...	8	...
Paterson	1	40	...	...	...	10	...
<i>Salem County</i>							
Pennsgrove	2	50	188	...	...	5	...
Pennsville .....	...	...	331	...	...	...	...
Salem	2	65	716	...	...	8	...
<i>Union County</i>							
Elizabeth	5	800	...	...	...	175	...
Roselle	3	168	...	...	...	...	...
Rahway	1	50	...	...	...	...	...
Linden	1	50	...	...	...	5	...
Plainfield	1	25	...	...	...	...	...
<i>Warren County</i>							
Washington	1	45	...	...	...	...	...
Totals	49	5,183	17,329	57	90	979	18,830

Report of the Rabies Control Unit

FOR THE CALENDAR YEAR 1947

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

At the close of the calendar year December 31, 1947, the personnel of the Rabies Control Unit comprised: Veterinarian-in-Charge; one Veterinary Inspector; two Rabies Control Wardens; four Investigators; two Inspectors (emergency); one principal clerk; one senior clerk-stenographer and one clerk-stenographer.

The year 1947 indicated a growing awareness of the importance of the rabies problem on the part of the public, health and municipal officials, and veterinarians. Although there has been a decline in the incidence of rabies this year over 1946, the recurrence of outbreaks among animals during the current year and one human death serves as a warning that rabies in the State of New Jersey is still rampant. Some areas in New Jersey harbor reservoirs of rabies infection and presumably new strains of virus are introduced by dogs in the incubation stage of rabies brought into the State. It is from these sources that explosive outbreaks arise. Throughout the years, as cases of rabies developed, attempts have been made by the State Department of Health to suppress the disease by ordering restrictions on dogs pursuant to R. S. 26:4-84 (Quarantine Act), and by assisting local officials in patrolling infected territories. Since the number of susceptibles remains constant, the application of these methods alone cannot be expected to yield satisfactory results. This annual recurrence of the disease in significant numbers, despite quarantine and patrolling, has given rise to the view that the surest and safest approach to the eventual eradication of rabies from the canine population of this State is to balance the control program by the administration of specific rabies treatment to dogs kept within the rabies-infected area.

REVENUE

The State Department of Health, during the calendar year 1947, collected a total of \$81,034.05 in dog registration tag fees, as required by R. S. 4:19-15.2. Expenditures covering this period were \$46,494.74.

FIELD ACTIVITIES

In March of 1947, two Rabies Control mobile units were activated and an additional mobile unit added in December 1947. Field personnel covered a total of 103,433 miles in assisting municipalities not equipped to handle the problems of rabies and dog control. Obviously, the Rabies Control Unit cannot be expected to undertake all of the work which is the responsibility of the local municipal authorities; however, every reasonable effort has been made to co-operate in the development of efficient local control facilities. Inadequate facilities for dog control at state and local levels are recognized and an attempt has been made to improve both agencies. In response to a municipal questionnaire designed to assemble data pertinent to rabies control, facts were revealed indicating laxness on the part of many municipalities in carrying out the provisions of the Rabies Control Act. Many of the smaller municipalities had absolutely no facilities whatever for dog control, being unable to employ a warden, or to furnish pounds or other essential equipment. The following figures, taken from a survey of 117 municipalities within three average counties, are regarded as representative of the general situation throughout the State:

Municipalities employing full- or part-time wardens	53 or 45 per cent
Pounds municipally or privately owned	59 or 50 per cent
Unofficial service	28 or 24 per cent
No service provided	36 or 31 per cent

Granting that the overall picture appears uncomplimentary, the low efficiency average does not reflect unfavorably on the more populated areas when adequate funds are made available for such work. Smaller villages, hamlets and townships often find their situation hopelessly encumbered in attempting to adhere to principles of home rule on the one hand and co-operation with their neighbors on the other. Attempts of the Rabies Control Unit to organize community groups into a working unit large enough for control purposes have resulted in disappointment. Cognizance is taken of the benefits that may be enjoyed if legislation is passed establishing larger and more efficient local health units into which such programs as rabies control could be integrated. A great many municipalities, striving to carry out the provisions of the Rabies Control Act but being unable to formulate a control unit of sufficient size to be effective, are now utilizing the services of the Rabies Control mobile units.

It would seem pertinent that all dog license fees collected by municipalities under the Rabies Control Act, especially in metropolitan areas where sufficient moneys are collected to do so, be expended for the purposes stated in the Rabies Control Act, to wit: for collecting, keeping and disposing of dogs

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liable to seizure under this act or under local dog control ordinances; for local prevention and control of rabies; for providing anti-rabic treatment under the direction of the local board of health for any person known or suspected to have been exposed to rabies; for payment of damage to or losses of poultry and domestic animals, except dogs and cats, caused by a dog or dogs; and for administering the provisions of this act.

INCIDENCE OF RABIES

According to reports received, there were 94 reported cases of rabies in the State of New Jersey during the year 1947; 92 canine, 1 feline and 1 human. (See Table No. 1.)

QUARANTINE

Restrictions on dogs established in 1945 and 1946, pursuant to R. S. 26:4-84 (Quarantine Act), are still operative in Bergen, Essex and Union Counties, in the Town of Kearny in Hudson County and in Franklin Township in Warren County.

Due to outbreaks of rabies in Mercer, Middlesex and Somerset Counties during 1947, quarantine restrictions were established in the following municipalities:

Mercer County—Boroughs of Hopewell, Pennington, and Princeton; Townships of Hopewell, Lawrence, Princeton and West Windsor.

Middlesex County—Boroughs of Carteret, Dunellen, Highland Park, Metuchen, Middlesex, South Plainfield; City of Perth Amboy; and Townships of Piscataway and Raritan.

Somerset County—Townships of Franklin and Montgomery; and Rocky Hill Borough.

LEGAL ACTION

Legal actions brought by and in the name of the State Department of Health at the request of local authorities resulted in the collection of \$3,166 in fines for violations of R. S. 4:19-15.2 (Licensing) and R. S. 26:4-84 (Quarantine). A review of the attached tabulation (Table No. 2) will show that \$3,152 of the amount collected was for violations of the Quarantine Act, indicating lack of concerted action on the part of some municipal officials in enforcing the provisions of that law.

DOG BITES

According to a tabulation received from the Bureau of Local Health Services, 13,620 dog bites were reported to local boards of health under the provisions of Title 26, Chapter 4, Article 7. As a courtesy to the State Depart-

ment of Health, some municipalities forward dog bite reports to this office; of 4,959 bites reported, 4,878 were inflicted by dogs, 54 by cats, 7 rats, 4 rabbits, 1 ewe, 4 squirrels, 1 opossum, 4 monkeys, 1 pony, 1 fawn, 1 weasel, 1 raccoon, and 1 parrot.

INSTITUTE ON RABIES

On March 10, 1947, an Institute on Rabies, sponsored by the New Jersey State Department of Health, was held in the War Memorial Building, Trenton, New Jersey. This institute was attended by local health and municipal officials, veterinarians, representatives of dog owners' associations, members of the S. P. C. A., bacteriologists and interested citizenry.

Participating in the Institute were:

Dr. James H. Steele, Director, Veterinary Public Health, States Relations Division,
United States Public Health Service, Washington, D. C. ;
Dr. John Wright, National Institute of Health, Washington, D. C. ;
Dr. Alexander Zeissig, Veterinary Consultant, Division of Communicable Diseases,
New York State Department of Health, Albany, New York ;

and the following members of the New Jersey State Department of Health:

Dr. J. Lynn Mahaffey, Director of Health ;
Dr. Frederick P. Lee, President, Board of Health ;
Dr. Roscoe P. Kandle, Director, Bureau of Preventable Diseases ;
Mr. John H. Spooner, Chief, Bureau of Bacteriology ;
Dr. J. S. McDaniel, Veterinarian-in-Charge, Rabies Control Unit.

Dr. Daniel Bergsma, Deputy Director of the New Jersey State Department of Health, acted as moderator.

GENERAL

Feeling that education of the public is a dominant factor in advancing any public health program, representatives of the State Department of Health accepted invitations to speak before the New Jersey Health Officers' Association, Parent-Teacher Associations, Grange meetings, the New Jersey Veterinary Medical Society and other citizen groups.

In view of recommendations of eminent authorities in the field of rabies control, the State Department of Health is convinced that the challenge imposed by rabies can be met only by the proper administration of vaccines of demonstrated potency, in conjunction with other control measures. Therefore, it is deemed imperative that, in those areas in which rabies infection is known to be enzootic, the following policy be established:

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- (1) Encourage and participate in an educational campaign designed to strengthen community interest in a rabies eradication program.
- (2) Supply vaccine of known value to local health and/or municipal officials to be used in immunizing dogs, said vaccine to be administered by regularly licensed veterinarians of the State of New Jersey under sponsorship of local governments.
- (3) Recommend that 30 days after 85 to 90 per cent of the dogs in a municipality have been vaccinated, the Director and Acting Commissioner of Health abolish existing restrictions on vaccinated dogs imposed pursuant to R. S. 26:4-84.
- (4) Adjust the budget for the year 1948 to compensate for the purchase and storage of vaccine in existing chemo-biologic depots maintained by the New Jersey State Department of Health. Based on the registered dog population of Bergen, Essex, Union and Middlesex, Mercer and Somerset counties—known to contain foci of rabies infection—a minimum of 135,000 doses of vaccine should be provided. The estimated cost of this amount of vaccine is \$40,500.

The protective value of modern anti-rabic vaccine is no longer in doubt. All such vaccines are tested by the Habel mouse test in the National Institute of Health and are required to meet a minimum standard before being released. In view of the confidence engendered by positive results in actual field test, immunization of dogs and cats against rabies has received the endorsement of the following official organizations:

- a. National Research Council on Animal Health.
- b. U. S. Department of Agriculture, Bureau of Animal Industry.
- c. U. S. Public Health Service.
- d. New York Academy of Science.
- e. New Jersey Bureau of Animal Industry.
- f. New Jersey State Veterinary Medical Society.
- g. The American Veterinary Medical Association.

Obviously vaccination, though imperative, is not the solution to all dog problems. Each municipality should adopt an ordinance dealing with local requirements, such as any part, or all, of the provisions of P. L. 1941, c. 151, the Rabies Control Act; leash and enclosure clauses; physical facilities and competent personnel for dog control; and setting up machinery to facilitate vaccination of dogs.

The object of the New Jersey State Department of Health is eradication of the disease from the State. To accomplish this requires:

1. Licensing all dogs within the State.
2. Apprehension and disposal of all stray dogs.
3. Quarantine of dogs in infected areas until the outbreak has subsided.
4. Frequent patrol of infected areas in support of the quarantine.
5. Immunization of all dogs kept within rabies danger zones.
6. Pursue with vigor an educational program designed to establish the hazards of rabies to the general public.

TABLE No. 1

THE NUMBER OF CASES OF RABIES REPORTED TO THE RABIES CONTROL UNIT OF THE NEW JERSEY STATE DEPARTMENT OF HEALTH
FROM JANUARY 1, 1947 TO DECEMBER 31, 1947

COUNTY	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for County
Atlantic .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Bergen	1	..	..	1	..	..	1	..	..	..	..	..	3
Burlington .....	..	..	..	1	..	..	..	..	..	..	..	..	1
Camden .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape May .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Cumberland .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Essex	1	*6	..	1	1	1	1	2	2	**1	..	..	16
Gloucester .....	..	..	..	..	..	..	..	..	..	..	..	..	1
Hudson .....	..	..	1	..	..	..	..	..	..	..	..	..	1
Hunterdon	2	..	3	..	..	1	..	..	..	..	..	..	6
Mercer .....	..	..	..	..	..	..	..	..	..	..	..	..	5
Middlesex	1	4	1	2	2	2	2	1	3	..	..	2	20
Monmouth .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Morris .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Ocean .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Passaic .....	..	..	..	1	..	..	..	..	..	..	..	..	1
Salem .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Somerset	6	3	2	1	2	2	16
Sussex
Union	1	7	8	3	1	4	1	25
Warren
Totals	6	23	16	9	4	10	4	5	5	2	2	8	94

* 1 cat.

** 1 human.

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TABLE NO. 2—TABULATION OF REVENUE RECEIVED 1947

LEGAL ACTIONS

R. S. 26:4-84 (quarantine)

R. S. 4:19-15.2 (licensing)

<i>Municipality</i>	<i>County</i>	<i>Statutes</i>	<i>Fine</i>	<i>Month of Violation</i>
Saddle River Twp.	Bergen	R. S. 26:4-84	\$28.00	September
Hasbrouck Heights	Bergen	R. S. 26:4-84	5.00	June
East Paterson	Bergen	R. S. 26:4-84	75.00	June
Wallington	Bergen	R. S. 26:4-84	15.00	May
Wallington	Bergen	R. S. 26:4-84	125.00	April
Lodi	Bergen	R. S. 26:4-84	220.00	April
Fair Lawn	Bergen	R. S. 26:4-84	85.00	January
Englewood	Bergen	R. S. 26:4-84	199.00	September
Belleville	Essex	R. S. 26:4-84	25.00	November
Belleville	Essex	R. S. 26:4-84	140.00	October
Nutley	Essex	R. S. 26:4-84	165.00	October
Nutley	Essex	R. S. 26:4-84	10.00	February
Nutley	Essex	R. S. 26:4-84	90.00	January
West Orange	Essex	R. S. 26:4-84	10.00	September
West Orange	Essex	R. S. 26:4-84	100.00	August
Kearny	Hudson	R. S. 26:4-84	75.00	October
Kearny	Hudson	R. S. 26:4-84	145.00	April
Kearny	Hudson	R. S. 26:4-84	10.00	February
Kearny	Hudson	R. S. 26:4-84	25.00	January
Kearny	Hudson	R. S. 26:4-84	190.00	¹ December 1946
Dunellen	Middlesex	R. S. 26:4-84	30.00	November
Roselle	Union	R. S. 26:4-84	70.00	October
Roselle	Union	R. S. 26:4-84	45.00	September
Roselle	Union	R. S. 26:4-84	5.00	July
Roselle	Union	R. S. 26:4-84	15.00	June
Roselle	Union	R. S. 26:4-84	245.00	April
Linden	Union	R. S. 26:4-84	80.00	September
Linden	Union	R. S. 26:4-84	5.00	July
Linden	Union	R. S. 26:4-84	80.00	June
Linden	Union	R. S. 26:4-84	260.00	May
Summit	Union	R. S. 26:4-84	115.00	August
Summit	Union	R. S. 26:4-84	155.00	March
Summit	Union	R. S. 26:4-84	30.00	² December 1946
Cranford Twp.	Union	R. S. 26:4-84	15.00	May
Cranford Twp.	Union	R. S. 26:4-84	15.00	April
Scotch Plains Twp.	Union	R. S. 26:4-84	55.00	April
Union Twp.	Union	R. S. 26:4-84	35.00	April
Union Twp.	Union	R. S. 26:4-84	30.00	³ December 1946
Fanwood	Union	R. S. 26:4-84	35.00	April
New Providence Boro.	Union	R. S. 26:4-84	10.00	February
Garwood	Union	R. S. 26:4-84	80.00	⁴ December 1946
Garwood	Union	R. S. 26:4-84	5.00	⁵ December 1946
New Hanover Twp.	Burlington	R. S. 4:19-15.2	4.00	July
Pemberton Twp.	Burlington	R. S. 4:19-15.2	2.00	July
Freehold Twp.	Monmouth	R. S. 4:19-15.2	7.00	June
Freehold Twp.	Monmouth	R. S. 4:19-15.2	1.00	May

¹ Remittance received January 1, 1947.² Remittance received January 2, 1947.³ Remittance received January 3, 1947.⁴ Remittance received January 3, 1947.⁵ Remittance received January 3, 1947.

Report of the Division of Tuberculosis Control

July 1, 1947—June 30, 1948

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

From July 1, 1947 through June 30, 1948 the Division of Tuberculosis Control has X-rayed 162,082 persons in industries, communities and institutions in New Jersey. A total of 3,838 persons whose films showed abnormalities of possible significance were referred to the Bureau of Local Health Services for follow-up. Better integration of the activities of this Division, the Bureau of Local Health Services, official agencies, and tuberculosis leagues resulted in more rapid and effective follow-up of the screened suspects. Assistance was given to certain general hospitals in securing routine chest X-rays for their in- and out-patients. X-ray equipment belonging to the Division was in use in eight clinics throughout the State, and 7,525 persons received chest X-rays in these clinics. Modern case registry equipment was loaned by the Division to three agencies, with the approval of the Bureau of Local Health Services.

Again this year the Division of Tuberculosis Control made the mass X-ray survey its main effort. The discovery of each unsuspected case of tuberculosis directly benefited the individual concerned, his family and the community in which he lives. In addition, a chain of events was initiated which developed a much-needed co-ordination among the many persons and agencies involved in tuberculosis control. The public received continuous health education, and the private physician was stimulated to a greater awareness of the frequency of chest problems in his patients. The Division's mass X-ray survey work reached a probable maximum with the present allocation of funds. Industries, communities and institution populations were surveyed.

Large and small industries comprised the bulk of this aspect of the Division's work. For example, a survey of the 30,000 employees of the Public Service Electric and Gas Company throughout the State, begun in November 1947, is now about 70 per cent complete. Some industries were done a second and third time since 1942. The field director's activities resulted in requests on hand to survey over 50,000 persons employed in various industries, and additional requests are received daily. To continue industry's interest in the

Division's X-ray service, the Division of Health Education prepared an excellent new descriptive brochure. Each month the Division mailed out over 500 copies of its publication "The TB Controller" to inform interested persons of survey activities.

The number of persons X-rayed in community surveys increased appreciably. The success of the community surveys depended on the assistance of local health departments, tuberculosis leagues, the Negro Health Program, civic groups and county medical societies. In community work, many persons were reached who would not otherwise have been X-rayed. Occasionally a community program and local industrial surveys were held simultaneously, a noteworthy example being the Vineland survey of October 1947, in which about 80 per cent of the adult population of that area was X-rayed. Interested local physicians contributed much to the success of this survey.

In conjunction with the State Department of Institutions and Agencies, this Division provided much-needed screening of the populations of crowded mental institutions, as well as those of almshouses and prisons. In co-operation with the State Department of Education, this Department conducted chest X-ray surveys at some of the training and normal schools and the New Jersey State College for Women. Exceptionally large numbers of active cases of tuberculosis were found in the insane asylums; segregation of the actively tuberculous and the routine X-raying of all admissions were recommended.

A condensed statistical summary of the X-ray survey work of the Division is given below. A more detailed analysis is available on request. The diagnoses refer to the impression of the Division physicians in reading the films, and do not refer to the clinical appraisal reported back to the Bureau of Local Health Services by private physicians and clinics, or to the appraisal of institution physicians.

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SUMMARY OF MASS CHEST X-RAY SURVEYS

I. Number of persons X-rayed	162,082
II. Surveys by counties:	

<i>County</i>	<i>No. Surveys</i>	<i>No. Persons X-rayed</i>
Atlantic	25	10,265
Bergen	2	1,857
Burlington	4	4,706
Camden	21	7,299
Cape May	1	700
Cumberland	10	9,619
Essex	39	15,634
Gloucester	9	4,191
Hudson	42	19,042
Hunterdon	5	1,791
Mercer	19	14,089
Middlesex	22	9,361
Monmouth	5	1,568
Morris	25	17,158
Passaic	49	25,471
Salem	5	2,329
Somerset	28	7,232
Union	24	7,923
Warren	2	1,847
	<hr/>	<hr/>
	337	162,082

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III. Survey X-ray abnormalities:

A. Pulmonary		4,377
1. Probably tuberculous	2,052	
a. Minimal	1,408	
(1) Probably active	183	
(2) Activity doubtful	848	
(3) Probably inactive	377	
b. Moderately advanced	586	
(1) Probably active	319	
(2) Activity doubtful	229	
(3) Probably inactive	38	
c. Far advanced, active	58	
2. Possibly tuberculous	1,750	
a. Tuberculosis suspect (subminimal)	1,311	
b. Gross lesions not typically tuberculous	409	
c. Disseminated multiple intrapulmonic calcific deposits	30	
3. Probably non-tuberculous	575	
a. Suspected pneumoconiosis	158	
b. Suspected neoplastic masses	92	
c. Suspected bronchiectasis	80	
d. Suspected lung cysts	9	
e. Suspected emphysema	19	
f. Miscellaneous	217	
B. Pleural	140	
C. Diaphragmatic	223	
D. Skeletal	1,541	
E. Operative	26	
F. Cardio-vascular	3,013	
IV. Number of persons referred for follow-up		4,282
A. Through Bureau of Local Health Services	3,838	
B. Directly to institution physicians	444	

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A tremendous burden was put on the Bureau of Local Health Services this year. Of the 4,282 persons whose X-rays showed abnormalities of possible importance, 3,838 were referred to the Bureau of Local Health Services for follow-up. The remaining 444 were referred directly to institution physicians. The Bureau of Local Health Services and the Division of Tuberculosis Control evolved and put into operation a priority system for referrals from mass X-ray surveys so that the greatest emphasis will be placed on those cases whose survey films show the greatest public health urgency. Thus, the persons whose survey X-ray shows a probably active, cavitary tuberculosis, will receive continuous attention, while relatively little attention will be given the person with an obviously calcific lesion.

Before this priority system was put into use, a special study was made of the Newark community survey which involved over 9,000 Newark residents, and from which there were 123 significant referrals. The study was made six months after the survey, and the material was gathered by the Division's Nurse Consultant. With the co-operation of the Bureau of Local Health Services and the Newark Health Department, it was found that 12 persons (0.13 per cent) proved to have active pulmonary tuberculosis, even without ideal bacteriologic and serial X-ray follow-up. Such a percentage figure for activity is comparable to the percentage given by other workers for metropolitan areas of various states, although 0.3 per cent has been reported under ideal follow-up conditions. On analysis it was found that the majority of finally proven active cases fell into the group in which the Division's physicians had initially read the survey film as "probably active." A check on the final results in other surveys lead to the same conclusion. Consequently, all persons whose survey X-rays were read as "probably active" have been placed in the top priority for follow-up.

Funds were insufficient to give general hospitals much more than an impetus to X-ray the chests of all their in- and out-patients. However, film for this purpose was given to the Hackensack General Hospital through the instigation of the Bergen County Tuberculosis League, and a similar program was begun at the Paterson General Hospital in co-operation with the Passaic County Tuberculosis League. Recently the Division has loaned a 4 x 5 X-ray machine to the St. Francis Hospital in Trenton to make routine chest X-rays of all in- and out-patients. The Mercer County Tuberculosis League has promised assistance in the follow-up work. At present, few of New Jersey's 42 general hospitals approved for internship, X-ray the chests of all ward admissions.

This year, the Division loaned X-ray machines to clinics in Burlington, Cliffside Park and Newton, in addition to those already in operation in Hammononton, Lakewood, Mays Landing, Paterson and Trenton. Free follow-up and routine clinic X-rays were made available to persons unable to pay for

such service. A statistical summary of the X-ray work done by the clinics using the Division's X-ray equipment during the fiscal year is given below.

WORK OF CLINICS USING X-RAY MACHINES OWNED BY THE
DIVISION OF TUBERCULOSIS CONTROL

Number of X-rays taken	*7,525
Number of persons X-rayed for first time	6,087
Number of persons re-X-rayed	1,438
Number of persons admitted to sanatoria	168

Modern case registry equipment was provided to Mr. Goemann for Cliffside Park, Mr. Newell for Bergen County, and the Monmouth County Organization for Social Service. The Bureau of Local Health Services and this Division will be guided by the use made of these registries in considering their installation elsewhere.

The Division is justly proud of its achievements during this fiscal year, and realizes that such accomplishments have depended on the industry of the field director, X-ray supervisors and technicians, the principal clerk and her able staff and on the co-operation of all with whom it has had dealings. Only through the continuous and integrated efforts of all concerned will tuberculosis cease to be a serious public health problem in New Jersey.

* Includes—2,037 fluoroscopies done in the Paterson Clinic in lieu of X-rays.

Report of the Division of Venereal Disease Control

July 1, 1947—June 30, 1948

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

Annual reports of the past three years have started with penicillin, and this one also will record first the developments of the past year in the penicillin treatment program as this is the focal point around which the whole program functions. Those who have been in venereal disease work for many years are still awed by the effectiveness and non-toxicity of penicillin as a therapeutic agent against both gonorrhea and syphilis. The significant development of the past year is the appearance on the market of different preparations of penicillin which make cure possible in a shorter time and with greater ease than before. Scientists predict that the cure of syphilis by a single injection of penicillin may be an accomplishment of the coming year.

PENICILLIN IN THE TREATMENT OF SYPHILIS

The Division has continued to offer free hospitalization to patients with syphilis. Forty-two general hospitals have accepted patients under this plan during the past year. Some hospitals have objected to our rate of payment in view of increasing costs of operating hospitals. The rate of payment to some hospitals has been increased to the maximum therefore, but no change has been made in the maximum allowance of \$7.50 per day. In addition to the general hospitals, some of the counties (notably Essex County) and cities have provided hospital beds for residents within the jurisdiction. Penicillin for these patients has been supplied by the Division. A recapitulation of numbers of patients hospitalized for penicillin treatment with state aid during the four years of the program is given in Table 1.

On April 1, 1948, the hospital program, which had been limited to cases of less than one year's duration, was extended to all classifications of syphilis. This extension was made because reports of research workers indicated that penicillin is remarkably effective in the treatment of late as well as early syphilis. A shift from hospital to ambulatory treatment, which will be discussed later, made our appropriation adequate to offer hospitalization for late cases. A treatment schedule, requiring eight days hospitalization and a total dosage of 4.8 million units (50,000 units every two hours), was adopted at the same time for all cases except neurosyphilis and early congenital syphilis

(less than four years), in which cases further extension of treatment was authorized. This schedule of treatment follows recommendations of the Syphilis Study Section, National Institute of Health, as released under date of December 1, 1947. It increases the treatment time and dosage which had been used previously in this State for primary, secondary, and latent syphilis of less than one year.

In spite of the introductory statement in this report about the trend to further simplification of treatment for syphilis, it seemed best to adopt a uniform schedule of treatment for early and late syphilis, longer than previously used for early cases, because of the difficulty of securing accurate classification of many cases. The aqueous preparation of penicillin is still being used in the hospital program.

Physicians have welcomed the extension of the hospital program to include old syphilis and have taken the opportunity to refer patients who are still serologically positive after years of treatment with arsenicals and bismuth, and patients who are partially disabled, physically or mentally, as a result of inadequately treated syphilis. There has not been time to evaluate the permanent effects of penicillin treatment for late syphilis. That many such persons are improved, at least temporarily, there is no doubt. Even temporary and partial recovery for these patients (which has been observed in our limited experience in New Jersey) is of inestimable value to them and their families. There is no doubt that institutional care will be avoided for some of them, with a resultant saving to the taxpayer. By treating all classifications of syphilis, it is reasonable to assume that many of the crippling manifestations of syphilis of the central nervous system will be prevented.

TABLE NO. 1
CASES TREATED WITH PENICILLIN UNDER THE STATE PLAN

<i>Six-Month Periods</i>	<i>Gonorrhea</i>		<i>Syphilis</i>		
	<i>Hospital- ized</i>	<i>Out- Patient</i>	<i>Civilians Hospital- ized</i>	<i>Separatees Hospital- ized*</i>	<i>Ambula- tory Treatment</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	...	...
July-December, 1947 .....	...	3,293	839	...	5
January-June, 1948 .....	...	2,266	949†	...	561
Total	803	13,820	5,327	792	566

* During rapid discharge of men from military service at close of World War II.

† On April 1, 1948, hospitalization was offered for all classifications of syphilis—previously it had been restricted to cases of less than one year.

AMBULATORY TREATMENT OF SYPHILIS

Enough POB (penicillin in oil and beeswax) had been accumulated by November 1947 to experiment in supplying physicians with this medication for ambulatory treatment of patients in their offices. A single daily injection of 600,000 units for ten days, of a slowly absorbed preparation of penicillin was recommended. A group of Newark physicians who had reported five or more cases of syphilis in 1947 (only 29 could meet this requirement) were offered replacement of POB (two 10 cc. vials, containing 3 million units each) for cases of syphilis of less than one year. The reason for choosing Newark for this experiment was because a public health nurse of our staff was available to interview patients for contact information.

Contrary to expectations, few requests for POB were received. A meeting of these physicians was then called to discuss the plan. The consensus of opinion seemed to be that they were seeing cases of early syphilis infrequently in private practice. Reluctance to have private patients interviewed by a public health nurse was also mentioned as a deterring factor in applying for free penicillin. Public funds expended for the treatment of syphilis do not accomplish maximum results unless contacts of the patient are traced promptly. This requirement that the patient be interviewed by a public health nurse will be continued and efforts made to reassure physicians that such an interview will not interfere with the patient-physician relationship.

The offer was extended in December 1947 to 156 other physicians throughout the State (all who could meet the requirement of having reported five cases in 1947). In February 1948, all physicians who had reported one or more cases in 1947 were notified of the availability of POB for early cases of syphilis. As this fiscal year closes, requests from physicians who have reported cases are being filled regardless of the classification of the disease, as a means of getting prompt treatment to the patient and encouraging better reporting of cases. One hundred fifty-six physicians have received penicillin for ambulatory treatment of 293 private patients.

In March, efforts were started to arrange for ambulatory treatment of syphilis in as many of the clinics as possible. As most of the clinics were in session only once or twice a week, this involved arrangements for personnel to give daily injections. Most of the larger clinics (30) have worked out a plan to do this and are treating all of their patients in groups of a size which can be handled by available personnel. To the end of June, 273 clinic patients have been treated on an ambulatory basis, with penicillin supplied by the State, in addition to the 293 private patients, or a total of 561 patients (see Table 1). Cases previously treated with arsenicals and bismuth, in addition to new cases, are being put through this course of penicillin treatment. Following this, the previously treated cases will be recalled for tests at periodic

intervals but will receive no further treatment unless relapse occurs. This method will reduce clinic loads and the cost of operating clinics.

IS THE PREVALENCE OF SYPHILIS DECLINING?

Fewer cases of syphilis were reported this year than last year; many clinics reported decreased enrollments. The assumption that the drop in clinic attendance could be accounted for probably by a shift to private physician care was not confirmed by private physicians with whom the staff is in contact. The demand for POB for use in private practice had been smaller **than expected**. Accordingly, a questionnaire was sent to all physicians, asking for an opinion as to the trend in prevalence of early syphilis as observed in private practice. Of 670 replies, 455 physicians indicated that they are seeing less early syphilis in practice than heretofore. These are straws in the wind which point to success in the control of syphilis.

GONOCOCCUS CULTURE SERVICE DISCONTINUED

Reluctantly the decision was reached to discontinue the gonococcus culture laboratory as of December 31, 1947. We realized that many physicians would feel that the Department was depriving them of a laboratory aid to the scientific practice of medicine after having urged this procedure upon them. As anticipated, some protests have been received from physicians. Objections have also come from some persons who interviewed patients for contact information and who claim that patients talk more freely when confronted with the laboratory evidence of their infection. As most of the contact reports now being received from military sources are for gonorrhea, some military authorities are objecting to the fact that they do not receive definite information about the results of contact investigation of civilians, since doctors, although they may treat for gonorrhea, hesitate to make a definite diagnosis without laboratory evidence. One good result is that culture reports will no longer influence the sentencing of girls picked up on vagrancy, prostitution, and other similar charges, as happened sometimes in the past; the sentence should be based on the crime and not on the presence or absence of disease.

The culture service, which was undertaken to assist physicians at a time when both diagnosis and therapy were very unsatisfactory, is no longer practical as a public health procedure. Penicillin now provides a cheap, efficient, innocuous cure for gonorrhea. Instead of delaying treatment until an exact culture diagnosis can be made, physicians are being urged to treat with penicillin immediately on the basis of clinical or epidemiologic findings. A laboratory culture for gonorrhea is now more difficult and costly than a cure, and to delay starting treatment until the receipt of a culture report makes possible the spread of disease.

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The discontinuance of the culture service is in accordance with recommendations of the U. S. Public Health Service.

TABLE 2—NUMBER OF SPECIMENS RECEIVED DURING THE OPERATION OF THE GONOCOCCUS CULTURE PROGRAM

	<i>Mailed Specimens</i>	<i>Delivered Specimens</i>	<i>Total</i>
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	11,134	4,211	15,345
July-December, 1947	8,358	2,884	11,242
Total	73,863	34,957	108,820

EXAMINATION OF AGRICULTURAL MIGRANT WORKERS

For several years the Division has operated special clinics for the examination of migrant agricultural workers. Last summer these clinics were expanded, under the direction of a committee of the State Departments of Labor and Health, to provide a more comprehensive health examination. Nine clinics were operated, as follows: Cranbury, Imlaystown, Freehold, Glassboro, Gelston Village and Orchard Center near Bridgeton, Mount Holly, Hammonton and Swedesboro, but the Hammonton and Swedesboro clinics were small and were discontinued after one month.

When cases of venereal disease were found the procedure was to hospitalize immediately for penicillin treatment cases of syphilis of less than one year's duration. Patients with syphilis of more than one year's duration were advised to report to the nearest V. D. clinic or to a private physician for treatment. When gonorrhea was diagnosed clinically, an injection of POB was given immediately and a confirmatory culture was done.

Only about 12 per cent of those examined were found to have syphilis, in contrast to about 30 per cent in previous years. Many persons stated that they had received treatment in rapid treatment centers in the south before coming to New Jersey.

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From these nine summer clinics, 90 migrant workers were hospitalized for early syphilis and 215 cases of gonorrhea were treated. The number of blood tests done in each clinic is given in Table 3.

OTHER MIGRANT GROUPS

In addition to the special clinics, examinations of many migrant workers were made at industrial plants, race tracks, hotels, etc. It is difficult to secure complete figures as employee tests are not always marked so that migrants and residents can be distinguished. The partial list below gives some idea of the extent of the problem:

TABLE 3—MIGRANT WORKERS EXAMINED FOR SYPHILIS, JULY 1, 1947-JUNE 30, 1948

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Agricultural migrants (special clinics)			
Cranbury	227	123	895
Freehold	215	96	431
Imlaystown	94	31	499
Glassboro (farm labor camp) Porta Ricans }	21	33	414
Swedesboro (farm labor camp) Porta Ricans }			
Gelston Village, Bridgeton	5	13	447
Orchard Center, Bridgeton	40	28	1,134
Mt. Holly	24	10	161
Hammonton .....	...	...	7
	— 626	— 334	
Race tracks			
Atlantic City	22	14	71
Monmouth Park	16	12	203
Garden State (Camden)	79	52	744
	— 117	— 78	
Other groups			
Armour Fertilizer, Carteret	16	14	...
Howard Smith Fertilizer, Port Monmouth	11	5	...
Hurff Camp, Swedesboro	33	31	...
Lakewood (hotel employees)	32	28	428
Seabrook Farms, Bridgeton	23	24	...
Ritters Canning Co., Bridgeton	16	18	...
Oyster shuckers, Port Norris	207	93	432
Miscellaneous	18	20	...
	— 356	— 233	
Total	1,099	645	5,866

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EMPLOYMENT TESTS

Many industries are doing pre-employment tests routinely. These are not always marked so that they can be identified as pre-employment tests. However, 1,206 positive and 2,164 doubtful specimens submitted to the State Laboratory could be checked as from 134 different large industries. Follow-up of the persons who had positive tests was carried out in the same routine as for previous years 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. In addition, 183 positive or doubtful test reports from persons living in other states were referred to the State Department of Health having jurisdiction.

SPECIAL SURVEYS

Community blood test surveys were attempted in Passaic and Manville. In Passaic a local committee was organized and considerable publicity work done, including an excellent series of announcements by the local newspaper. The results in number of persons examined were disappointing, as shown in Table 4.

In Manville an effective publicity campaign was carried on with the assistance of local agencies, but the blood testing was called off at the last minute because of objections from officials of the county tuberculosis league to a blood-testing program in connection with a chest X-ray program. In other places also the hope of doing blood tests in connection with community chest X-ray surveys was not realized for two reasons; first, because the state trailer was used for the chest X-rays and there is not sufficient space to do blood tests and, second, the county tuberculosis associations, in line with the New Jersey Tuberculosis League, are concentrating their efforts at this time on tuberculosis. This is a change in policy of the state society under the direction of the new executive, as the society for several years past has carried on a social hygiene educational program.

Blood tests were offered on a voluntary basis to postal employees of Camden and to the Amalgamated Garment Workers of America at Vineland, with results as indicated in Table 4.

TABLE 4—SPECIAL SURVEYS, JULY 1, 1947-JUNE 30, 1948

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Passaic	2	4	79
Postal employees, Camden	1	3	166
Amalgamated Garment Workers of America, Vineland	12	18	1,097
	<hr/> 15	<hr/> 25	<hr/> 1,342

PREMARITAL AND PRENATAL SEROLOGIC TESTS FOR SYPHILIS

The laws requiring premarital and prenatal serologic tests for syphilis continue to be an excellent case-finding measure, reaching a large group of young adults.

TABLE 5—PREMARITAL BLOOD TESTS REPORTED BY APPROVED LABORATORIES
IN NEW JERSEY

	<i>Total Tests</i>	<i>Positives</i>	<i>Per Cent Positive</i>	<i>No. of Persons Married</i>
1939	68,021	928	1.36	63,790
1940	87,622	1,120	1.28	82,118
1941	100,947	1,384	1.37	93,076
1942	100,391	1,510	1.50	100,906
1943	77,172	1,313	1.7	82,090*
1944	66,435	1,205	1.81	72,168*
1945	78,876	1,272	1.61	79,200*
1946	120,728	1,688	1.39	122,040
1947	113,707	1,705	1.49	106,260

As most positive tests would be repeated for confirmation, whereas a negative report would be accepted in most cases, the percentage of positive tests probably is higher than the actual percentage of persons infected with syphilis. This is true also in Table 6 which follows:

TABLE 6—PRENATAL BLOOD TESTS REPORTED BY APPROVED LABORATORIES
IN NEW JERSEY

	<i>Total Tests</i>	<i>Positives</i>	<i>Per Cent Positive</i>
1939	42,863	640	1.49
1940	52,940	735	1.39
1941	62,852	874	1.39
1942	78,774	1,263	1.60
1943	58,376	794	1.36
1944	66,804	886	1.33
1945	66,537	992	1.49
1946	100,139	1,443	1.44
1947	96,059	1,433	1.49

* Many of these persons had blood tests in military laboratories of this or other states.

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TABLE 7—TOTAL NUMBER OF BLOOD TESTS FOR SYPHILIS OF ALL LABORATORIES

	<i>Total</i>	<i>Positive Results</i>	<i>Per Cent Positive</i>
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	702,110	39,756	5.66

STANDARDIZATION OF SEROLOGIC TESTS

Ten years ago standardization of tests for syphilis was being done with lyophile standardized syphilitic serum. The supplying of dried standard syphilitic serum was discontinued during World War II as an economy measure. In the meantime, lyophile apparatus was simplified and made more efficient through necessity in the preparation of penicillin during the recent war. This simplified apparatus has been ordered so that the standard syphilitic serum again will be available in New Jersey. As a cheap method of increasing uniformity in sensitivity, Mazzini antigen of a constant sensitivity has been regularly supplied upon request to any New Jersey laboratory. Eighty-seven different laboratories have received 7,770 c.c. of standardized Mazzini antigen with a total of 65 liters of necessary buffered saline.

Quantitative Mazzini tests for syphilis are done upon request at the State Laboratory. Quantitative tests will be done routinely to supply this more informative report if sufficient funds become available for the purpose.

EPIDEMIOLOGY

Twenty years ago, New Jersey pioneered in applying the "from whom and to whom" method of finding cases of syphilis and has considered this phase of the program as indispensable ever since. Additional personnel were employed for this work in 1936 when federal funds first became available, and the staff gradually increased to 20 public health nurses assigned to various parts of the State. During the war years this expanded staff was invaluable in investigating contacts of infected military personnel. In 1945, the peak year, more than 2,500 such contacts were reported from military sources. With the demobilization of military personnel, by 1947 the number of military V. D. contacts reported had dropped to 590. This present fiscal year

* Includes tests for Selective Service.

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the number was further reduced to 401. With the first peacetime conscription authorized by Congress to begin in August, every effort will be made to continue the close working relationship between military and civilian V. D. officials to prevent spread of disease to the young men required to **undergo** military training.

A representative of the Division assisted police officials (chiefly in Trenton) by interviewing 47 contacts suspected of being prostitutes. In 29 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 establishments. Jail sentences were given to 26 of these persons and several were committed to state institutions. This assistance in interviewing prostitutes and conferences with police officials as to the disposition of other cases involving neglect of children, juvenile delinquency, sex offenses, etc., gave opportunity for the development of a close working relationship with police officials and for interpretation of the venereal disease laws.

CIVILIAN CONTACTS

The investigation of contacts named by civilians also has continued to be a major part of the V. D. program in New Jersey, although there was a decrease in the total number of such reports received from 2,700 last year to 2,002 this year. A few states have discontinued contact tracing in cases of gonorrhea on the assumption that the effectiveness of penicillin is so well known that infected persons will seek treatment. Although our staff has been instructed to give preference to early cases of syphilis, there still seems value in interviewing gonorrhea patients for contact information and in following up such information.

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TABLE 8—CIVILIAN CONTACTS BY COUNTY AND LARGE CITY, JULY 1, 1947-JUNE 30, 1948

(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	241	
(Atlantic City—206)		
Bergen County	96	
Burlington County	76	
Camden County	112	
(Camden—91)		
Cape May County	11	
Cumberland County	127	
Essex County	315	
(Newark—266)		
Gloucester County	41	
Hudson County	177	
(Jersey City—96)		
Hunterdon County	6	
Mercer County	143	
(Trenton—122)		
Middlesex County	64	
(New Brunswick—21)		
Monmouth County	134	
(Asbury Park and Neptune—39)		
Morris County	50	
Ocean County	12	
Passaic County	161	
(Paterson—122)		
Salem County	65	
Somerset County	27	
Sussex County	9	
Union County	115	
Warren County	20	
		<hr/>
Out-of-state		2,002
		699
		<hr/>
Total		2,701

To measure completely the results of contact-tracing is impossible, but an effort has been made in Table 9 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 9—RESULTS OF INVESTIGATION OF CIVILIAN CONTACT INFORMATION
(See Table 8)

Brought or returned to treatment	481
Previously untreated	351
Previously treated	130
Under treatment at time of investigation	100
Located—uncooperative (not examined)	22
Not infected	556
Not located	663
Not known at address	278
Fictitious address	116
Old address—suspect left	38
Moved out of jurisdiction	43
Insufficient information to begin investigation	188
Other disposition	150
Satisfactory	112
Unsatisfactory	38
Disposition unknown	26
Disposition pending	4
	<hr/>
	2,002

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 County, Cumberland County, 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.

STANDARD DRUGS

During the past years research workers have expressed increasing confidence in penicillin alone in the treatment of all classifications of syphilis. In neurosyphilis, results for penicillin alone have been reported by some psychiatrists as favorable as results with any other type of treatment or combinations of treatment.

A 38 per cent decrease has occurred this year in the amount of arsenicals and bismuth requested by practicing physicians, which suggests that this most conservative group is placing more reliance on penicillin as the decrease in

reported cases is not great enough to account for a decrease in requests for drugs. Not all have taken up the "new"; of 605 physicians who answered a recent questionnaire, 76 (12 per cent) stated that they use arsenicals and bismuth only in the treatment of early syphilis. Seventy-two per cent (436) stated that they use a combination of penicillin and the older drugs in early syphilis. In view of the preference of many physicians for a combination treatment, even in early syphilis, distribution of the arsenical and bismuth is being continued.

The four-page Syphilis History-Physical-Treatment record was revised and printed as a single sheet 5" x 10", and offered to all the clinics.

EDUCATIONAL PROGRAM

Through the department page in the *Journal of the State Medical Society* and by direct circularization of physicians and hospitals, the medical profession has been informed of advances in diagnosis and treatment. Three issues of *Vee Dee News Letter* were prepared and sent to health officers, clinics, and a mailing list of other interested persons.

A 15-minute radio broadcast was prepared for Social Hygiene Day and used by several local stations; letters were sent to all local health officers; and the Division cooperated again with the New Jersey Pharmaceutical Association and the New Jersey Tuberculosis League in sending a letter to all pharmacists in the State, resulting in requests from them for 21,000 pamphlets for distribution in drug stores.

In addition to the Social Hygiene Day broadcast, two other 15-minute radio scripts were prepared and used on radio stations. There were 139 showings of V. D. films to 15,000 people, and 20,000 pamphlets, in addition to those distributed through drug stores, were sent to individuals and organizations upon request.

The Division has continued its interest in sex education through membership on the advisory committee on social hygiene education to the State Department of Education, which committee has recently released a pamphlet to assist elementary school teachers and administrators. Although no active publicity has been done in recent years many requests for sex educational pamphlets are received from schools, P. T. A.'s and other groups. These requests have been filled. Staff members promote courses in sex education for communities under the sponsorship of Rutgers University.

TRAINING OF PERSONNEL

Several staff members have been assigned to universities for academic work during the past year, leaving the Division understaffed. It is anticipated that this academic training will prove very useful in advancing the program in the coming year when the reorganization of the entire Department will be undertaken by the new State Commissioner of Health.

TABLE 10—CASES OF VENEREAL DISEASE REPORTED IN NEW JERSEY,
JANUARY 1-DECEMBER 31, 1947 (CIVILIAN CASES ONLY*)

County	Syphilis		Gonorrhea		Chancroid		Total	1940 Population	Rate Per Thous.
	M.	F.	M.	F.	M.	F.			
Atlantic	379	353	290	152	2	..	1,176	124,066	9.5
Bergen	143	174	149	41	2	1	510	409,646	1.2
Burlington	105	105	98	39	1	..	348	97,013	3.6
Camden	225	215	209	99	2	..	750	255,727	2.9
Cape May	40	40	31	3	1	..	115	28,919	4.0
Cumberland	215	218	116	53	10	..	612	73,184	8.4
Essex	1,193	1,056	2,005	570	15	6	4,845	837,340	5.8
Gloucester	76	94	77	20	1	..	268	72,219	3.7
Hudson	309	297	391	191	9	1	1,198	652,040	1.8
Hunterdon	35	12	12	5	1	..	65	36,766	1.8
Mercer	450	334	296	133	2	..	1,215	197,318	6.2
Middlesex	265	221	137	97	3	1	724	217,077	3.3
Monmouth	380	410	194	103	4	4	1,095	161,238	6.8
Morris	55	45	88	44	..	..	232	125,732	1.8
Ocean	64	48	27	13	1	..	153	37,706	4.1
Passaic	176	167	228	65	1	..	637	309,353	2.1
Salem	69	65	80	19	2	..	235	42,274	5.6
Somerset	51	27	24	7	3	..	112	74,390	1.5
Sussex	8	12	9	2	..	..	31	29,632	1.0
Union	264	218	171	77	..	..	730	328,344	2.2
Warren	17	12	8	3	..	..	40	50,181	.8
Total	4,519	4,123	4,640	1,736	60	13	15,091	4,160,165	3.6

Granuloma inguinale—7.

Lymphogranuloma venereum—13.

* Does not include military cases; includes migrant workers.

Report of the Bureau of Vital Statistics

Statistics for the Calendar Year 1947

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 10.9 in 1946, and in the rate from tuberculosis of the respiratory system from 251.0 to 33.0 per 100,000 population.

The Bureau has the custody of more than twelve 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.

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.

Three bills for the improvement of registration procedures were written by the Bureau, and after departmental approval were introduced in the Legislature. All of the bills were passed by both the Assembly and Senate, and two received executive approval. The third bill had not been delivered to Governor Driscoll at the time of writing this report.

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, 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 to the Division 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.

Photostatic copies of certificates of deaths due to reportable diseases were prepared and forwarded to the Bureau of Local Health Services, and copies of certificates of deaths due to cancer and other malignant tumors were prepared for the Division of Cancer Control.

Certified copies of birth, marriage and death records were issued individuals and interested organizations and agencies. During the fiscal year 1947-48, 37,614 searches of the records were made and copies of certificates found issued, for which \$23,075.15 was received in fees. A total of 14,539 of the searches and certified copies were for purposes exempt from charge by law. The revenue of the Bureau decreased approximately \$650 from the amount collected during the preceding year. There was also a slight decrease in the number of certificates issued without charge, which records were requested 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 220,000 birth, stillbirth, marriage and death certificates, a small part of which records were for unreported births that occurred during previous years. The annual growth of the records requires approximately 200 cubic feet of storage space.

More than 111,000 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 1,578 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 51 calls on local registrars and six 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 supervisors of veterans' interment, 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 2,014 veterans were reported as buried in New Jersey cemeteries during the fiscal year.

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The Bureau has been 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

		<i>Calendar Years</i>			
	<i>1920</i>	<i>1930</i>	<i>1940</i>	<i>1947</i>	
Births registered, tabulated and indexed	76,431	68,282	59,328	106,086	
Stillbirths registered, tabulated and indexed...	3,221	2,647	1,543	2,265	
Marriages registered, tabulated and indexed ..	31,327	28,499	41,059	55,802	
Deaths registered, tabulated and indexed	40,820	43,190	45,206	48,276	
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Total records registered, tabulated and permanently filed	151,799	142,618	147,136	212,429	
<hr/>					
Searches made and/or certified copies issued for which fees were received	4,664	10,523	38,431	23,075	
Certified copies issued and searches made in pension and other cases for which no fees were received	4,232	6,938	11,300	14,539	
Fees received for searches and certified copies	\$4,051	\$9,601	\$31,614	\$23,075.15	

CHARTS AND TABLES—1947

- Table 1. Births, marriages, deaths and rates, 1879-1947.
- 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: 1947.
- Chart 1. Births and deaths per 1,000 population, 1880-1944.
- Table 3. Deaths of infants under five years of age and percentage of total deaths, 1904-1947.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1947.
- 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, 1937-1947.
 Table 10. Typhoid fever rates by counties, 1937-1947.
 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 death.
 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 and townships.
 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) :

Atlantic County

Atlantic City

Bergen County

Burlington County

Camden County

Camden City

Cape May County

Cumberland County

Essex County

East Orange

Irvington

Newark

Gloucester County

Hudson County

Bayonne

Hoboken

Jersey City

Union City

Hunterdon County

Mercer County

Trenton

Middlesex County

Monmouth County

Morris County

Ocean County

Passaic County

Passaic City

Paterson

Salem County

Somerset County

Sussex County

Union County

Elizabeth

Warren County

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Population.—In computing rates for the State, the U. S. Census Bureau estimate of 4,435,000 as of July 1, 1947 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. 4, issued by the Bureau of the Census on October 12, 1947.

Since county population estimates for 1947 were not available from the U. S. Census Bureau, the death rates by counties were based upon estimates of county populations for 1947 released by the State Department of Economic Development. These estimates were developed from a survey of the largest municipalities of each county.

Estimates of the 1947 population of municipalities were secured in the same manner as the county estimates.

Births.—During 1947, 106,086 live births were reported, with a resultant rate of 23.9 per 1,000 population. This was a numerical increase of 11,042 over the preceding year. The 1946 total of 95,044 was 18,049 more than occurred in 1945. 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 1947 was 2,436 of which 1,157 were babies born to colored mothers. Expressed as percentages of the total births by color for white and non-white, the figures were 1.3 and 14.4 respectively. Similar percentages for 1946 were 1.4 and 14.9.

Marriages.—The number of marriages reported for 1947 was 55,802, a decrease of 5,218, or 8.6 per cent, from the number for the previous year. The marriage rate per 1,000 population was 12.6 compared with 14.2 for 1946 and 9.5 for 1945.

Deaths.—The number of deaths of residents of the State for 1947 was 48,276, equivalent to a rate of 10.9 per 1,000 population. In 1946 the rate was 10.7. For the past decade the rate ranged from 10.6 in 1938 and 1939 to 11.8 in 1943.

Stillbirths.—There were 2,265 stillbirths reported during 1947. The number for the previous year was 2,127. The 1947 rate was 21 per 1,000 live births. The rate for the colored population was 37.

DEPARTMENT OF HEALTH

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	23,118	26.8	7,096	6.3	20,440	18.4
1880	1,133,731	23,680	20.8	7,963	7.0	18,967	16.7
1881	1,165,112	23,484	20.1	8,109	6.9	20,812	17.8
1882	1,196,493	23,108	19.3	8,837	7.3	25,959	21.6
1883	1,227,874	24,430	19.8	9,166	7.4	23,310	18.9
1884	1,250,256	25,263	20.0	8,968	7.1	21,716	17.2
1885	1,290,638	24,077	18.6	8,989	6.9	23,807	18.4
1886	1,322,020	25,497	19.2	12,351	9.3	22,784	17.1
1887	1,353,402	27,340	20.2	15,416	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	1,448,589	30,103	20.7	15,564	10.7	28,530	19.6
1891	1,492,482	28,882	19.3	15,305	10.2	28,840	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	33,662	20.7	16,245	10.0	30,004	18.4
1895	1,667,957	31,742	19.0	15,873	9.5	30,634	18.3
1896	1,711,831	31,207	18.2	18,370	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	13,336	7.2	30,999	16.8
1900	1,889,184	32,270	17.0	14,611	7.7	31,474	16.6
1901	1,955,361	34,312	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	16.3
1905	2,220,070	39,689	17.8	20,572	9.2	33,864	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	36,359	14.6
1910	2,550,445	53,942	21.1	27,912	10.9	39,494	15.4
1911	2,614,177	58,133	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	65,403	23.3	28,528	10.1	39,967	14.2
1915	2,869,106	66,476	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	75,309	25.1	30,060	10.0	43,532	14.5
1918	3,060,301	74,549	24.3	33,989	7.8	60,852	19.8
1919	3,124,034	70,935	22.7	29,281	9.3	39,079	12.7
1920	3,199,092	76,431	23.8	31,327	9.7	40,820	12.7
1921	3,285,475	78,172	23.7	27,815	8.4	37,362	11.3
1922	3,371,859	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,458,243	74,611	21.5	28,730	8.3	41,294	11.9
1924	3,544,627	76,530	21.5	27,601	7.7	40,531	11.4
1925	3,631,011	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,717,395	72,386	19.4	28,424	7.6	44,396	11.9
1927	3,803,779	72,799	19.1	28,316	7.4	41,562	10.9
1928	3,890,163	70,076	18.0	29,120	7.4	44,555	11.4
1929	3,976,546	68,297	17.1	30,257	7.6	45,746	11.5
1930	4,044,300	68,282	16.9	28,499	7.0	43,190	10.7
1931	4,056,200	64,078	15.8	26,468	6.5	44,135	10.9
1932	4,068,100	61,215	15.0	22,840	5.6	42,826	10.5
1933	4,080,000	56,072	13.7	24,453	6.0	43,380	10.6
1934	4,091,800	54,841	13.4	28,991	7.1	43,547	10.6
1935	4,103,700	55,059	13.4	29,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,500	55,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,206	10.9
1941	4,199,900	67,104	16.0	46,538	11.1	45,971	10.9
1942	4,226,425	80,812	19.1	50,498	11.9	46,270	10.9
1943	4,235,233	82,356	19.4	41,045	9.7	49,781	11.8
1944	4,167,840	75,632	18.2	36,064	8.7	47,340	11.4
1945	4,200,941	76,993	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
1947	4,435,000	106,086	23.9	53,802	12.6	48,276	10.9

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TABLE 1A—BIRTHS, MARRIAGES AND DEATHS, 1947

(Births and deaths corrected for residence)

<i>Month</i>	<i>Births</i>	<i>Marriages</i>	<i>Deaths</i>
January	9,690	3,648	4,531
February	8,735	4,169	4,017
March	9,605	2,783	4,496
April	8,880	5,040	4,111
May	9,113	4,441	3,945
June	8,873	7,797	3,725
July	9,008	4,084	3,665
August	8,801	4,745	3,552
September	8,652	6,143	3,599
October	8,572	4,796	3,996
November	8,067	5,141	3,998
December	8,090	3,015	4,641
Total	106,086	55,802	48,276

TABLE 1B—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHES AND TOWNSHIPS, 1947

(Births and deaths corrected as to residence)

ATLANTIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Absecon City	67	25	26	2
Atlantic City	1333	923	1000	48
Brigantine City	13	11	7	...
Buena Vista Township	103	64	53	6
Corbin City	6	4	1	1
Egg Harbor City	120	68	49	6
Egg Harbor Township	75	11	45	3
Estelle Manor City	1	...	7	1
Folsom Borough	6	2	4	...
Galloway Township	51	12	38	3
Hamilton Township	65	36	38	1
Hammonton Town	175	102	74	11
Linwood City	53	23	16	...
Loupport Borough	5	3	3	...
Margate City	57	28	49	2
Mullica Township	29	4	28	3
Northfield City	66	16	24	3
Pleasantville City	303	188	190	12
Port Republic City	9	1	5	...
Somers Point City	56	35	30	2
Ventnor City	165	109	110	6
Weymouth Township	19	1	11	1
Total	2776	1657	1808	111

BERGEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allendale Borough	70	14	37	4
Alpine Borough	11	5	4	...
Bergenfield Borough	262	128	114	9
Bogota Borough	175	78	96	3
Carlstadt Borough	134	44	61	3
Cliffside Park Borough	378	139	160	18
Closter Borough	77	30	42	1
Cresskill Borough	66	15	24	2
Demarest Borough	31	12	5	...
Dumont Borough	260	92	62	2
East Paterson Borough	266	60	61	8
East Rutherford Borough	177	110	74	2
Edgewater Borough	78	206	46	...
Emerson Borough	41	5	15	1
Englewood City	465	322	212	10
Englewood Cliffs Borough	15	3	5	...
Fair Lawn Borough	427	92	99	6
Fairview Borough	197	197	79	8
Fort Lee Borough	207	215	115	7
Franklin Lakes Borough	27	7	14	...
Garfield Borough	650	342	211	7
Glen Rock Borough	111	50	49	...
Hackensack City	586	532	286	20
Harrington Park Borough	22	11	14	1
Hasbrouck Heights Borough	169	101	65	3
Haworth Borough	24	9	13	...
Hillsdale Borough	83	33	36	1
Hoboken Borough	37	25	21	...
Leonia Borough	153	59	50	1
Little Ferry Borough	103	64	59	5
Lodi Borough	376	122	104	8
Lyndhurst Township	416	203	180	11
Mahwah Township	103	36	42	2
Maywood Borough	132	40	57	3
Midland Park Borough	120	43	28	1
Montvale Borough	29	7	17	3
Moonachie Borough	42	16	14	1
New Milford Borough	106	30	36	2
North Arlington Borough	366	99	85	7
Northvale Borough	43	15	10	...
Norwood Borough	39	32	20	...
Oakland Borough	38	13	14	1
Old Tappan Borough	16	2	7	1
Oradell Borough	52	22	42	2
Palisades Interstate Park .....	...	...	2	...
Palisades Park Borough	230	84	75	4
Parhamus Borough	74	31	45	4
Park Ridge Borough	61	56	35	1
Ramsey Borough	109	54	37	3
Ridgefield Borough	129	67	58	3
Ridgefield Park Village	270	106	120	6
Ridgewood Village	275	178	168	7
River Edge Borough	169	32	47	4
Rivervale Township	30	3	16	1
Rochelle Park Township	129	45	31	1
Rockleigh Borough	2	1	1	...
Rutherford Borough	321	154	176	7
Saddle River Borough	13	15	8	...
Saddle River Township	37	10	18	1
South Hackensack Township	26	...	12	1
Teaneck Township	548	198	234	4
Tenafly Borough	141	68	82	1
Teterboro Borough	2	...	1	...
Upper Saddle River Borough	16	8	3	1
Waldwick Borough	73	11	32	...
Wallington Borough	235	55	64	5
Washington Township	7	2	4	...
Westwood Borough	138	92	69	1
Woodcliff Lake Borough	31	5	7	1
Wood Ridge Borough	142	70	54	1
Wyckoff Township	101	36	39	4
Total	10479	5061	4217	225

BUREAU OF VITAL STATISTICS

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BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township	17	7	12	1
Beverly City	95	31	37	3
Bordentown City	115	118	85	6
Bordentown Township	39	3	13	4
Burlington City	319	153	129	12
Burlington Township	38	10	19	...
Chesterfield Township	29	9	16	1
Cinnaminson Township	42	22	17	...
Delanco Township	59	17	31	1
Delran Township	43	9	22	...
Eastampton Township	13	2	6	1
Edgewater Park Township	24	15	8	...
Evesham Township	43	9	23	2
Fieldsboro Borough	19	5	4	...
Florence Township	151	69	67	7
Fort Dix	27	132	3	2
Hainesport Township	34	23	11	...
Lumberton Township	28	2	11	1
Mansfield Township	49	10	23	...
Maple Shade Township	150	86	57	7
Medford Township	77	22	37	2
Medford Lakes Borough	4	11	...	...
Moorestown Township	214	82	85	6
Mount Holly Township	226	94	94	1
Mount Laurel Township	48	14	20	2
New Hanover Township	11	1	6	2
North Hanover Township	16	5	8	1
Palmyra Borough	159	48	59	1
Pemberton Borough	47	11	13	1
Pemberton Township	95	66	27	2
Riverside Township	184	103	62	9
Riverton Borough	70	45	28	...
Shamong Township	16	...	1	...
Southampton Township	52	17	29	1
Springfield Township	27	8	8	1
Tabernacle Township	12	15	9	...
Washington Township	8	...	6	...
Westampton Township	18	6	9	...
Willingboro Township	8	...	5	...
Woodland Township	11	...	4	2
Wrightstown Borough	44	4	10	3
Total	2681	1284	1114	82

CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough	270	71	107	14
Barrington Borough	57	12	24	...
Bellmawr Borough	166	11	16	3
Berlin Borough	71	53	36	5
Berlin Township	48	11	12	...
Brooklawn Borough	48	5	13	...
Camden City	3211	1753	1433	109
Chesilhurst Borough	3	9	6	...
Clementon Borough	80	28	37	...
Collingswood Borough	391	143	179	4
Delaware Township	73	22	65	6
Gibbsboro Borough	12	4	11	1
Gloucester City	390	148	166	12
Gloucester Township	136	37	69	9
Haddonfield Borough	264	101	139	4
Haddon Heights Borough	137	106	71	4
Haddon Township	137	59	93	4
HiNella Borough	7	...	2	...
Laurel Springs Borough	63	18	20	2
Lawnside Borough	33	9	29	2
Lindenwold Borough	56	45	32	2
Magnolia Borough	42	14	23	...
Merchantville Borough	301	95	72	6
Mount Ephraim Borough	102	50	23	...
Oaklyn Borough	139	44	52	2
Pennsauken Township	304	159	170	13

DEPARTMENT OF HEALTH

CAMDEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Pine Hill Borough	41	14	22	2
Pine Valley Borough .....	...	1	...	...
Runnemede Borough	109	46	27	3
Somerdale Borough	36	13	18	2
Stratford Borough	21	19	6	...
Tavistock Borough .....	...	...	...	...
Voorhees Township	19	16	8	...
Waterford Township	64	23	23	2
Winslow Township	99	64	54	1
Woodlynne Borough	48	6	30	2
Total	6978	3209	3088	214

CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough	19	6	10	...
Cape May City	79	43	43	3
Cape May Point Borough	2	1	2	...
Dennis Township	41	18	30	2
Lower Township	45	10	32	2
Middle Township	100	42	58	3
North Wildwood City	37	21	39	1
Ocean City	112	75	97	4
Sea Isle City	19	7	12	1
Stone Harbor Borough	11	10	6	...
Upper Township	36	16	23	...
West Cape May Borough	13	5	9	...
West Wildwood Borough	2	...	...	...
Wildwood City	131	118	97	8
Wildwood Crest Borough	18	4	18	...
Woodbine Borough	40	9	22	3
Total	716	385	498	27

CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City	532	242	242	15
Commercial Township	66	37	48	2
Deerfield Township	69	9	15	2
Downe Township	51	11	18	...
Fairfield Township	57	26	40	3
Greenwich Township	37	5	14	2
Hopewell Township	33	5	28	2
Landis Township	377	141	196	12
Lawrence Township	58	7	21	...
Maurice River Township	49	18	33	1
Millville City	332	193	215	6
Shiloh Borough	17	5	3	...
Stow Creek Township	26	3	10	...
Upper Deerfield Township	129	40	33	3
Vineland Borough	189	117	92	6
Total	2022	859	1008	53

BUREAU OF VITAL STATISTICS

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ESSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Belleville Town	724	356	276	15
Bloomfield Town	1036	426	450	25
Caldwell Borough	160	85	71	3
Caldwell Township	27	16	10	1
Cedar Grove Township	81	4	41	3
East Orange City	1710	746	881	41
Essex Fells Borough	22	15	12	...
Glen Ridge Borough	104	44	83	1
Irvington Town	1255	617	590	25
Livingston Township	190	55	52	4
Maplewood Township	378	175	237	7
Millburn Township	195	133	114	5
Montclair Town	929	500	527	28
Newark City	19529	7211	5156	350
North Caldwell Borough	23	2	15	2
Nutley Town	593	285	223	19
Orange City	968	576	433	26
Roseland Borough	40	10	17	3
South Orange Village	252	172	163	5
Verona Borough	174	77	85	5
West Caldwell Borough	94	5	27	3
West Orange Town	627	193	252	15
Total	20111	11703	9715	586

GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough	57	27	44	4
Deptford Township	106	68	62	3
East Greenwich Township	36	21	20	...
Elk Township	27	7	12	...
Franklin Township	81	35	58	2
Glassboro Borough	143	83	75	8
Greenwich Township	66	20	17	...
Harrison Township	59	8	33	3
Logan Township	42	8	14	1
Mantua Township	109	39	39	2
Monroe Township	117	51	55	5
National Park Borough	68	22	25	3
Newfield Borough	44	17	14	1
Paulsboro Borough	228	88	70	9
Pitman Borough	156	67	84	2
South Harrison Township	11	3	7	...
Swedesboro Borough	87	48	41	9
Washington Township	37	20	23	1
Wenonah Borough	41	16	25	2
West Deptford Township	73	43	34	5
Westville Borough	137	73	51	6
Woodbury City	271	121	136	9
Woodbury Heights Borough	36	7	7	...
Woolwich Township	29	2	11	1
Total	2061	894	956	76

HUDSON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bayonne City	1859	902	722	42
East Newark Borough	67	17	16	...
Guttenberg Town	95	55	68	2
Harrison Town	340	253	160	11
Hoboken City	1130	1247	633	33
Jersey City	7261	4666	3515	205
Kearny Town	998	408	396	17
North Bergen Township	861	259	392	15
Secaucus Borough	160	70	67	3
Union City	1187	920	639	27
Weehawken Township	272	215	169	10
West New York	825	920	357	16
Total	15055	9932	7134	381

DEPARTMENT OF HEALTH

HUNTERDON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Township	25	4	15	...
Bethlehem Township	13	1	11	3
Bloomsbury Borough	16	5	14	...
Califon Borough	11	15	14	...
Clinton Town	33	15	18	...
Clinton Township	41	13	20	2
Delaware Township	38	15	18	...
East Amwell Township	26	6	16	2
Flemington Borough	81	56	42	1
Franklin Township	36	8	9	...
Frenchtown Borough	39	8	18	1
Glen Gardner Borough	26	12	13	1
Hampton Borough	28	18	16	2
High Bridge Borough	35	36	27	3
Holland Township	17	6	6	1
Kingwood Township	16	4	12	1
Lambertville City	122	80	53	4
Lebanon Borough	17	10	11	1
Lebanon Township	37	2	16	...
Milford Borough	42	21	8	...
Raritan Township	58	7	29	2
Readington Township	79	41	48	1
Stockton Borough	12	8	19	...
Tewksbury Township	23	4	14	...
Union Township	19	2	19	1
West Amwell Township	13	...	10	...
Total	903	397	478	26

MERCER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Township	16	...	13	1
Ewing Township	338	68	124	8
Hamilton Township	946	334	372	32
Hightstown Borough	104	56	55	4
Hopewell Borough	49	30	28	1
Hopewell Township	76	8	49	4
Lawrence Township	192	50	72	7
Pennington Borough	29	29	16	...
Princeton Borough	241	173	114	4
Princeton Township	109	6	28	1
Trenton City	2885	1843	1439	101
Washington Township	36	12	17	3
West Windsor Township	60	19	18	1
Total	5081	2628	2345	167

MIDDLESEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Camp Kilmer	23	88	2	...
Carteret Borough	307	165	102	10
Cranbury Township	52	12	32	3
Dunellen Borough	238	122	65	3
East Brunswick Township	106	33	31	5
Helmetta Borough	14	12	10	1
Highland Park Borough	242	96	86	6
Jamesburg Borough	69	41	21	1
Madison Township	184	31	58	7
Metuchen Borough	220	112	87	9
Middlesex Borough	55	50	39	1
Milbourn Borough	97	42	39	2
Monroe Township	56	7	14	2
New Brunswick City	962	706	394	28
North Brunswick Township	153	21	46	6
Perth Amboy City	963	683	405	30

BUREAU OF VITAL STATISTICS

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MIDDLESEX COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Piscataway Township	190	32	77	5
Plainsboro Township	24	4	6	...
Raritan Township	256	85	99	8
Sayreville Borough	184	78	70	3
South Amboy City	228	122	109	5
South Brunswick Township	86	13	37	4
South Plainfield Borough	151	77	56	8
South River Borough	280	159	84	2
Spotswood Borough	51	14	17	1
Woodbridge Township	790	257	269	18
Total	5981	3062	2255	170

MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Borough	18	1	9	...
Allentown Borough	30	29	16	1
Asbury Park City	372	408	260	16
Atlantic Township	19	13	7	...
Atlantic Highlands Borough	94	37	35	2
Avon Borough	84	24	17	...
Belmar Borough	108	102	64	1
Bradley Beach Borough	80	44	50	...
Brielle Borough	21	3	7	1
Deal Borough	27	23	19	1
Eatontown Borough	110	27	46	2
Englishtown Borough	36	15	18	1
Fair Haven Borough	65	13	40	3
Farndingdale Borough	24	16	20	2
Fort Hancock	12	...	2	1
Fort Monmouth	35	72	4	...
Freehold Borough	157	102	101	3
Freehold Township	84	5	26	...
Highlands Borough	72	22	32	4
Holmdel Township	17	8	21	1
Howell Township	109	29	50	3
Interlaken Borough	17	...	10	1
Keansburg Borough	164	76	54	5
Keyport Borough	153	110	65	4
Little Silver Borough	43	16	27	1
Long Branch City	658	249	233	10
Manalapan Township	51	15	27	2
Manasquan Borough	69	52	58	2
Marlboro Township	42	19	37	1
Matawan Borough	114	38	44	5
Matawan Township	39	13	37	2
Middletown Township	311	85	146	8
Millstone Township	27	2	21	2
Monmouth Beach Borough	15	4	14	1
Neptune Township	302	78	208	8
Neptune City Borough	66	17	30	3
Ocean Township	130	22	54	5
Oceanport Borough	63	12	15	...
Raritan Township	39	...	18	1
Red Bank Borough	341	206	171	5
Roosevelt Borough	16	2	1	...
Rumson Borough	92	48	40	3
Sea Bright Borough	29	6	12	...
Sea Girt Borough	24	12	21	2
Shrewsbury Borough	29	17	11	...
Shrewsbury Township	64	24	20	3
South Belmar Borough	26	3	11	...
Spring Lake Borough	43	33	33	1
Spring Lake Heights Borough	30	17	15	...
Union Beach Borough	71	24	22	4
Upper Freehold Township	44	5	22	1
Wall Township	145	24	53	4
West Long Branch Borough	46	11	25	2
Total	4827	2233	2399	122

DEPARTMENT OF HEALTH

MORRIS COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Boonton Town	186	95	78	4
Boonton Township	22	1	7	...
Butler Borough	103	66	36	1
Chatham Borough	154	34	54	...
Chatham Township	31	9	10	...
Chester Borough	19	12	20	1
Chester Township	24	7	9	...
Denville Township	136	31	54	2
Dover Town	318	169	159	21
East Hanover Township	22	17	16	...
Florham Park Borough	42	8	33	2
Hanover Township	113	45	28	1
Harding Township	25	7	9	...
Jefferson Township	55	20	15	1
Kinnelon Borough	30	2	4	...
Lincoln Park Borough	73	28	27	3
Madison Borough	234	125	82	3
Mendham Borough	37	29	20	2
Mendham Township	24	2	7	...
Mine Hill Township	58	20	23	1
Montville Township	77	34	32	...
Morris Plains Borough	54	45	34	4
Morristown Town	409	221	213	9
Morris Township	128	28	61	4
Mountain Lakes Borough	45	13	25	1
Mount Arlington Borough	20	9	6	1
Mount Olive Township	63	9	28	...
Netcong Borough	74	59	33	5
Parsippany-Troy Hills Township	171	33	56	3
Pas-aic Township	74	19	26	...
Pequannock Township	92	22	26	1
Randolph Township	80	17	43	5
Riverdale Borough	24	4	18	...
Rockaway Borough	108	76	39	3
Rockaway Township	77	15	26	4
Roxbury Township	127	31	57	8
Washington Township	48	12	38	1
Wharton Borough	88	55	50	6
Total	3465	1429	1502	97

OCEAN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat City Borough .....	...	1	3	...
Bay Head Borough	25	6	9	...
Beach Haven Borough	27	18	9	...
Beachwood Borough	42	5	15	3
Berkeley Township	22	17	12	...
Brick Township	77	8	38	6
Dover Township	185	100	84	5
Eagleswood Township	8	5	9	...
Harvey Cedars Borough .....	...	...	...	...
Island Beach Borough	1	...	9	...
Island Heights Borough	16	6	9	3
Jackson Township	49	14	29	...
Lacey Township	24	4	18	...
Lakehurst Borough	105	15	17	7
Lakewood Township	223	170	131	5
Lavallette Borough	11	3	6	...
Little Egg Harbor Township	13	2	7	...
Long Beach Township	12	2	5	...
Manchester Township	19	3	6	...
Mantoloking Borough	1	1	...	...
Ocean Township	6	5	3	...
Ocean Gate Borough	6	2	3	...
Pine Beach Borough	12	4	2	...
Plumsted Township	62	18	27	2
Point Pleasant Borough	122	32	46	3
Point Pleasant Beach Borough	15	56	34	1

BUREAU OF VITAL STATISTICS

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OCEAN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Seaside Heights Borough	13	9	10	...
Seaside Park Borough	21	8	5	...
Ship Bottom-Beach Arlington Borough	4	3	8	...
South Toms River Borough	5	11	4	2
Stafford Township	26	6	21	1
Surf City Borough	4	1	2	...
Tuckerton Borough	38	20	23	3
Union Township	30	14	18	2
Total	1224	569	613	43

PASSAIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomington Borough	72	17	23	4
Clifton City	1370	403	445	32
Haledon Borough	110	65	59	2
Hawthorne Borough	279	149	127	8
Little Falls Township	153	59	49	3
North Haledon Borough	50	10	27	1
Passaic City	1262	1123	629	47
Paterson City	3098	2085	1688	70
Pompton Lakes Borough	87	104	24	2
Prospect Park Borough	129	61	39	2
Ringwood Borough	45	4	15	3
Totowa Borough	97	50	35	1
Wanaque Borough	123	45	46	3
Wayne Township	235	76	83	2
West Milford Township	67	29	37	1
West Paterson Borough	65	21	29	4
Total	7242	4301	3355	185

SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Township	32	12	16	2
Elmer Borough	57	17	20	2
Elsinboro Township	18	2	9	2
Lower Alloways Creek Township	32	5	13	...
Lower Penns Neck Township	145	26	53	3
Mannington Township	40	5	23	1
Oldmans Township	51	21	15	1
Penns Grove Borough	248	99	103	11
Pilesgrove Township	30	2	8	1
Pittsgrove Township	47	14	31	2
Quinton Township	39	14	25	5
Salem City	265	107	118	11
Upper Penns Neck Township	116	35	40	8
Cpper Pittsgrove Township	43	10	18	1
Woodstown Borough	52	30	33	2
Total	1215	399	525	52

DEPARTMENT OF HEALTH

SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Township	20	22	10	1
Bernards Township	83	33	36	5
Bernardsville Borough	79	53	41	1
Bound Brook Borough	284	151	85	11
Branchburg Township	46	...	21	3
Bridgewater Township	161	48	66	4
East Millstone Town	6	...	5	...
Far Hills Borough	22	9	5	...
Franklin Township	200	41	64	6
Green Brook Township	11	8	4	...
Hillsborough Township	92	17	36	3
Manville Borough	252	110	61	9
Millstone Borough	5	2	5	...
Montgomery Township	42	9	23	...
North Plainfield Borough	292	153	156	7
Peapack-Gladstone Borough	34	19	22	...
Raritan Town	120	59	45	3
Rocky Hill Borough	16	5	10	1
Somerville Borough	263	156	121	7
South Bound Brook Borough	78	25	25	1
Warren Township	74	13	20	1
Watchung Borough	27	24	10	...
Total	2207	957	851	63

SUSSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Borough	14	7	8	1
Andover Township	38	...	11	1
Branchville Borough	20	15	7	...
Byram Township	10	2	7	...
Frankford Township	33	2	15	1
Franklin Borough	96	34	42	2
Fredon Township	12	6	4	...
Green Township	11	12	4	...
Hamburg Borough	41	34	17	...
Hampton Township	8	6	1	1
Hardyston Township	32	1	15	2
Hopatcong Borough	18	7	6	...
Lafayette Township	28	8	10	1
Montague Township	12	2	4	...
Newton Town	160	88	66	3
Ogdensburg Borough	29	5	12	...
Sandyston Township	16	9	5	...
Sparta Township	70	33	31	...
Stanhope Borough	33	14	12	...
Stillwater Township	16	3	10	...
Sussex Borough	60	40	23	2
Vernon Township	28	8	21	4
Walpack Township	5	1	5	...
Waukegan Township	71	9	26	2
Total	861	346	362	20

BUREAU OF VITAL STATISTICS

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UNION COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Township	101	21	28	3
Cranford Township	441	155	157	9
Elizabeth City	2740	1549	1210	73
Fanwood Borough	82	10	32	1
Garwood Borough	141	44	27	1
Hillside Township	465	139	154	9
Kenilworth Borough	87	17	19	1
Linden City	736	259	177	18
Mountainside Borough	49	10	10	1
New Providence Borough	56	26	27	3
New Providence Township	62	11	22	...
Plainfield City	1050	554	432	24
Rahway City	526	241	194	21
Roselle Borough	437	160	138	14
Roselle Park Borough	226	51	67	2
Scotch Plains Township	176	50	53	3
Springfield Township	131	62	52	4
Summit City	393	177	172	9
Union Township	631	216	240	19
Westfield Town	413	216	200	9
Winfield Township	60	4	5	2
Total	9003	3972	3416	225

WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Township	17	...	9	...
Alpha Borough	58	41	17	...
Belvidere Town	57	32	40	1
Blairstown Township	38	18	17	2
Franklin Township	26	10	10	...
Frelinghuysen Township	12	2	5	...
Greenwich Township	39	24	17	...
Hackettstown Town	93	39	68	4
Hardwick Township	10	...	8	...
Harmony Township	36	16	12	...
Hope Township	10	4	10	1
Independence Township	21	13	8	1
Knowlton Township	18	8	12	...
Liberty Township	4	...	5	...
Lopatcong Township	17	2	12	...
Mansfield Township	23	8	19	...
Oxford Township	54	19	31	8
Papaquarry Township .....	...	...	...	...
Phillipsburg Town	462	197	217	18
Pobatoncong Township	39	10	23	1
Washington Borough	104	75	69	1
Washington Township	30	5	15	2
White Township	30	2	12	...
Total	1198	525	637	34
State Total	106086	53802	48276	2959

TABLE 2—DEATHS BY AGE PERIODS AND PERCENTAGES OF EACH OF TOTAL DEATHS, 1947

	AGE PERIODS																	
	Total	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	48,276	2,959	169	108	81	70	3,387	191	396	1,052	1,775	3,887	8,142	10,986	11,456	6,152	852	.
Percentage of total ..	100.0	6.1	0.4	0.2	0.2	0.1	7.0	0.4	0.8	2.2	3.7	8.1	16.9	22.8	23.7	12.7	1.8	.

NEW JERSEY **BIRTHS AND DEATHS** FIVE YEAR AVERAGE RATES 1,000 POPULATION

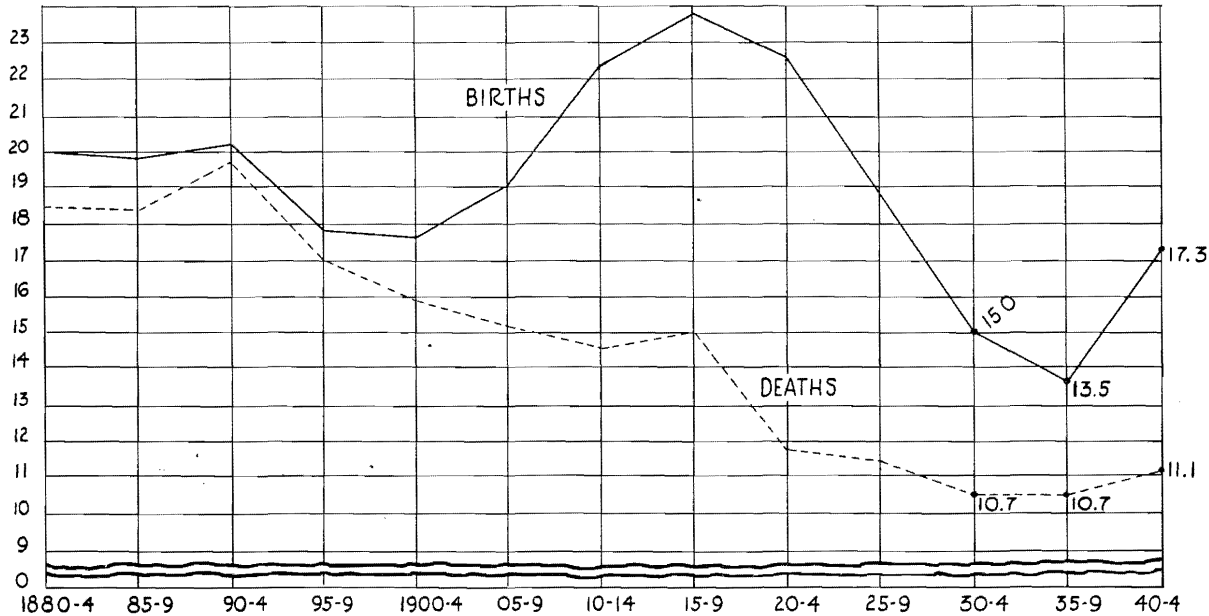


CHART 1

Infant Mortality.—The infant mortality rate for 1947 was 27.9 per 1,000 babies born alive. The rate for 1946 was 28.5 and the average annual rate for the five-year period 1942-1946 was 31.8. 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 47.2. The colored races have shown high mortality rates ever since vital records were first collected and analyzed.

Maternal Mortality.—The rate of 1.0 for 1947 was 23.1 per cent lower than the rate for 1946 and was the lowest since such rates were first computed in 1906. The average annual rate for the five-year period 1942-1946 was 1.6 per 1,000 live births. The colored maternal mortality rate for 1947 was 1.6.

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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
1947	48,276	2,959	6.1	3,387	7.0

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

<i>Year</i>	<i>Births Reported</i>	<i>Deaths Under 1 Year of Age</i>	<i>Rates per 1,000 Live Births</i>	<i>Deaths Under 1 Month of Age</i>	<i>Rates per 1,000 Live Births</i>	<i>Still- births</i>	<i>Rates per 1,000 Live Births</i>	<i>Maternal Deaths</i>	<i>p</i>
1906	42,677	7,773	182.1	2,545	59	2,399	56	322	
1907	44,651	7,732	173.2	2,602	58	2,530	56	289	
1908	47,405	7,823	165.2	2,655	56	2,617	55	329	
1909	47,508	7,658	161.2	2,661	56	2,539	53	311	
1910	53,942	8,352	154.8	2,801	51	2,737	50	377	
1911	58,133	7,642	131.4	2,887	49	2,754	47	427	
1912	60,073	7,457	124.1	2,836	47	2,953	49	415	
1913	61,432	7,542	122.7	2,903	47	2,866	46	460	
1914	65,403	7,431	113.6	2,995	45	3,074	47	416	
1915	66,476	7,077	106.4	2,862	43	3,075	46	390	
1916	70,211	7,348	104.7	3,075	43	3,221	45	383	
1917	75,309	7,582	100.7	3,256	43	3,183	42	411	
1918	74,549	8,372	112.3	3,175	42	3,525	47	417	
1919	70,935	6,111	86.1	2,696	38	3,047	42	366	
1920	76,431	6,672	87.2	2,961	38	3,221	42	472	
1921	78,172	5,773	73.8	2,830	36	3,242	41	464	
1922	74,479	5,864	78.7	2,773	37	3,033	40	466	
1923	74,611	5,368	71.9	2,621	35	3,169	42	424	
1924	76,530	5,359	70.0	2,739	35	3,177	41	466	
1925	74,193	5,109	68.8	2,607	35	3,010	40	461	
1926	72,386	5,090	70.3	2,537	35	3,018	41	394	
1927	72,799	4,464	61.3	2,462	33	3,074	42	450	
1928	70,076	4,600	65.6	2,485	35	2,864	40	406	

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TABLE 5—DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY
PER THOUSAND LIVE BIRTHS—1947

	<i>Rate Per 1,000 Live Births</i>		<i>Maternal Deaths</i>
	<i>Deaths Under One Month</i>	<i>Stillbirths</i>	
New Jersey	21	21	1.0
Atlantic County	27	20	0.7
Atlantic City	23	22	0.8
Bergen County	16	20	1.0
Burlington County	23	23	0.4
Camden County	22	22	1.9
Camden City	25	23	1.6
Cape May County	22	14	1.4
Cumberland County	18	18	1.5
Essex County	23	23	0.7
East Orange	17	18	..
Irvington	17	18	0.8
Newark	26	26	0.7
Gloucester County	27	17	2.4
Hudson County	19	22	0.5
Bayonne	16	20	..
Hoboken	19	25	0.9
Jersey City	21	22	0.6
Union City	18	25	0.8
Hunterdon County	20	21	1.1
Mercer County	23	25	1.0
Trenton	25	23	1.4
Middlesex County	23	22	1.2
Monmouth County	20	25	1.2
Morris County	21	16	0.6
Ocean County	28	24	1.6
Passaic County	20	19	0.8
Passaic City	26	20	1.6
Paterson	18	22	1.0
Salem County	30	20	1.6
Somerset County	24	21	0.5
Sussex County	16	17	1.2
Union County	19	21	1.1
Elizabeth	20	25	2.2
Warren County	17	9	3.3

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TABLE 7—BIRTHS, DEATHS UNDER ONE DAY, ONE WEEK, ONE MONTH AND ONE YEAR AND INFANT MORTALITY RATES
(EXCLUSIVE OF STILLBIRTHS)—1947

	<i>Births (Exclusive of Stillbirths)</i>	<i>One Day</i>	<i>Deaths Under One Week</i>	<i>One Month</i>	<i>One Year</i>	<i>Infant Mortality Rates</i>
New Jersey	106,086	1,075	1,925	2,217	2,959	28
Atlantic County	2,776	38	63	75	111	40
Atlantic City	1,333	15	26	30	48	36
Hammonton	175	7	8	8	11	63
Pleasantville	303	4	6	6	12	40
Bergen County	10,479	84	144	168	225	21
Bergenfield	262	3	5	8	9	34
Cliffside Park	378	6	14	14	18	48
Englewood	465	3	5	7	10	22
Fairview	197	4	5	6	8	41
Fort Lee	207	..	3	4	7	34
Garfield	650	2	3	5	7	11
Hackensack	586	9	13	15	20	34
Lodi	376	..	3	4	8	21
Lyndhurst Township	416	5	6	8	11	26
North Arlington	366	3	5	5	7	19
Ridgefield Park	270	1	3	3	6	22
Ridgewood	275	3	4	5	7	25
Rutherford	321	4	6	6	7	22
Teaneck Township	548	2	3	3	4	7
Wallington	235	2	2	2	5	21
Burlington County	2,681	31	55	61	82	31
Burlington City	319	3	8	9	12	38
Camden County	6,978	73	126	155	214	31
Audubon	270	3	5	9	14	52
Camden	3,211	42	70	80	109	34
Collingswood	391	1	1	1	4	10
Gloucester	390	4	6	10	12	31
Haddonfield	264	1	3	3	4	15
Pennsauken Township	304	2	7	8	13	43
Cape May County	716	9	15	16	27	38
Cumberland County	2,022	27	34	36	53	26
Bridgeton	532	8	10	11	15	28
Millville	332	1	2	2	6	18

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	<i>Births (Exclusive of Stillbirths)</i>	<i>One Day</i>	<i>Deaths One Week</i>	<i>Under One Month</i>	<i>One Year</i>	<i>Infant Mortality Rates</i>
East Orange	1,710	14	28	29	41	24
Irvington	1,255	10	19	21	25	20
Maplewood Township	378	3	6	6	7	19
Millburn Township	195	4	4	4	5	26
Montclair	929	9	23	24	28	30
Newark	10,529	115	232	271	350	33
Nutley	593	5	11	12	19	32
Orange	968	11	18	18	26	27
South Orange	252	1	4	4	5	20
West Orange	627	5	12	12	15	24
Gloucester County	2,061	28	44	56	76	37
Woodbury	271	4	6	7	9	33
Hudson County	15,055	159	265	282	381	25
Bayonne	1,859	13	29	30	42	23
Guttenberg	95	1	2	2	2	21
Harrison	340	4	8	8	11	32
Hoboken	1,130	9	18	21	33	29
Jersey City	7,261	96	146	153	205	28
Kearny	998	7	13	14	17	17
North Bergen Township ...	861	3	9	10	15	17
Secaucus	160	1	1	2	3	19
Union City	1,187	11	19	21	27	23
Weehawken Township	272	5	8	9	10	37
West New York	825	9	12	12	16	19
Hunterdon County	903	9	15	18	26	29
Mercer County	5,081	44	86	115	167	33
Princeton	241	3	4	4	4	17
Trenton	2,885	32	60	73	101	35
Middlesex County	5,981	48	119	138	170	28
Carteret	307	5	9	10	10	33
Highland Park	242	4	5	8	8	33
New Brunswick	962	9	21	24	28	29
Perth Amboy	963	7	23	28	30	31
Sayreville	184	..	2	2	3	16
South Amboy	228	1	3	3	5	22
South River	280	1	2	2	2	7
Woodbridge Township	790	4	11	13	18	23
Monmouth County	4,827	44	84	96	122	25
Asbury Park	372	7	10	10	15	40
Long Branch	658	3	6	6	10	15
Neptune Township	302	2	6	6	8	26
Red Bank	341	3	4	5	5	15

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	<i>Births (Exclusive of Stillbirths)</i>	<i>One Day</i>	<i>Deaths One Week</i>	<i>Deaths Under One Month</i>	<i>One Year</i>	<i>Infant Mortality Rates</i>
Morris County	3,465	37	58	72	97	28
Dover	318	6	14	17	21	66
Madison	234	..	1	3	3	13
Morristown	409	5	7	8	9	22
Ocean County	1,224	19	28	34	43	35
Passaic County	7,242	76	129	147	185	26
Clifton	1,370	11	24	28	32	23
Hawthorne	279	3	5	5	8	29
Passaic	1,262	14	29	33	47	37
Paterson	3,098	35	50	57	70	23
Salem County	1,215	23	33	37	52	43
Salem City	265	5	7	8	11	42
Somerset County	2,207	19	40	53	63	29
Bound Brook	284	2	5	9	11	39
North Plainfield	292	2	4	6	7	24
Somerville	263	2	6	6	7	27
Sussex County	861	4	12	14	20	23
Union County	9,003	92	156	171	225	25
Cranford Township	441	1	4	7	9	20
Elizabeth	2,740	27	51	56	73	27
Hillside Township	465	3	7	8	9	19
Linden	736	10	14	14	18	24
Plainfield	1,050	11	13	14	24	23
Rahway	526	13	18	20	21	40
Roselle	437	4	9	10	14	32
Roselle Park	226	..	1	1	2	9
Summit	393	3	6	7	9	23
Union Township	631	8	14	15	18	29
Westfield	413	3	8	8	9	22
Warren County	1,198	8	15	20	34	28
Phillipsburg	462	5	7	8	18	39

Typhoid Fever.—Four deaths were reported for the year. This was a rate of 0.1 per 100,000 population. In 1946 the rate of 0.1 represented three deaths. The 1947 rate was low in comparison with the United States rate of 0.2. Table 17 shows the distribution of typhoid fever deaths by age, sex and color. The number of deaths from typhoid fever by counties and cities may be obtained by referring to Table 20.

NEW JERSEY TYPHOID FEVER FIVE YEAR AVERAGE DEATH RATES 100,000 POPULATION

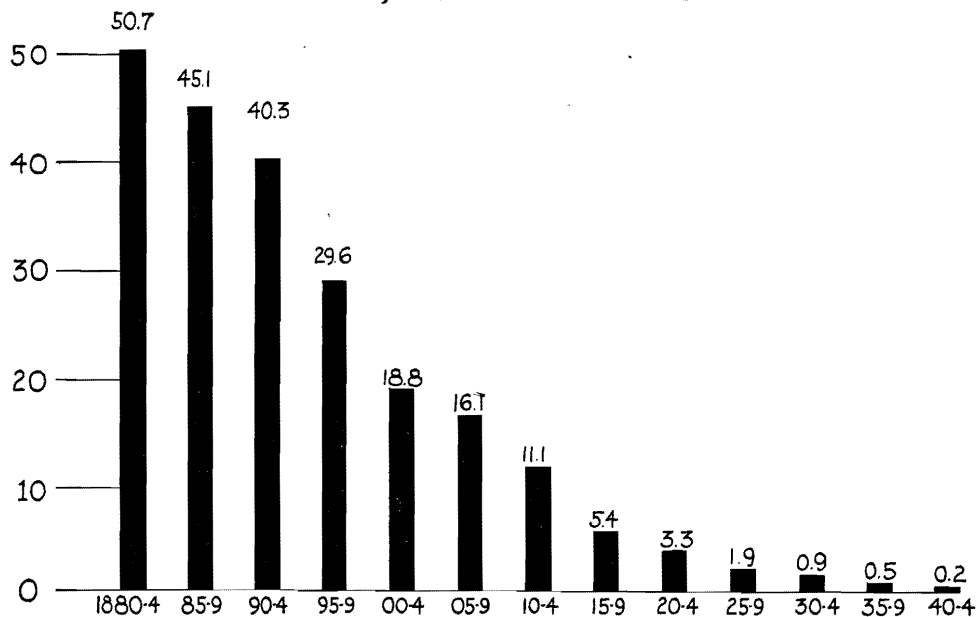


CHART 2

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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

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
Registration area of the United States	1.8	1.5	1.0	0.8	0.5	0.5	0.4	0.4	0.2	0.2
New Jersey	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1

TABLE 10—DEATHS FROM TYPHOID FEVER, PER 100,000 POPULATION, BY COUNTIES, FOR 10 YEARS

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
Atlantic	1.4	2.4	8.8	...	1.6	...	...	0.9	...	...
Bergen	0.4	...	0.2	0.5	...	...	...	...	0.4	...
Burlington	1.0	1.0	...	...	...	...	...	...	...	1.1
Camden .....	...	1.2	...	0.4	...	0.4	...	0.8	...	...
Cape May .....	...	...	...	...	...	...	...	3.6	...	...
Cumberland .....	...	1.4	...	...	...	1.4	1.4	...	...	...
Essex	0.5	0.6	0.1	0.1	...	...	...	0.4	...	0.1
Gloucester .....	...	...	1.4	...	...	...	1.3	...	...	1.3
Hudson	0.6	...	0.3	...	0.2	...	0.5	...	...	...
Hunterdon .....	...	...	...	2.7	...	...	...	...	...	...
Mercer	0.5	...	1.0	...	...	...	...	...	...	0.5
Middlesex	0.4	...	0.9	0.5	...	0.4	...	...	...	...
Monmouth .....	...	...	0.6	0.6	0.6	0.6	...	...	...	...
Morris .....	...	...	...	...	...	...	0.8	...	...	...
Ocean .....	...	...	...	...	...	...	...	...	...	...
Passaic	0.3	0.3	...	0.3	0.3	...	0.3	...	...	...
Salem .....	...	2.4	...	...	...	...	...	...	2.2	...
Somerset	1.5
Sussex
Union	0.3	0.3	0.3
Warren	2.1
New Jersey	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1

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Smallpox.—One death occurred during 1947. This was the first reported death in New Jersey since 1925, when as in 1924, the disease was prevalent in epidemic form in certain sections of the State.

Measles.—Four deaths occurred from this disease, equivalent to a rate of 0.1 per 100,000 population. Of these, one death was in the group under one year of age and two were in the group under five years of age. In 1946, twenty-seven deaths were reported, equivalent to a rate of 0.6.

Scarlet Fever.—The number of deaths from scarlet fever was two, equivalent to a rate of less than 0.1 per 100,000 population. The number for the previous year was 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
			1947..... 1

CHART 3

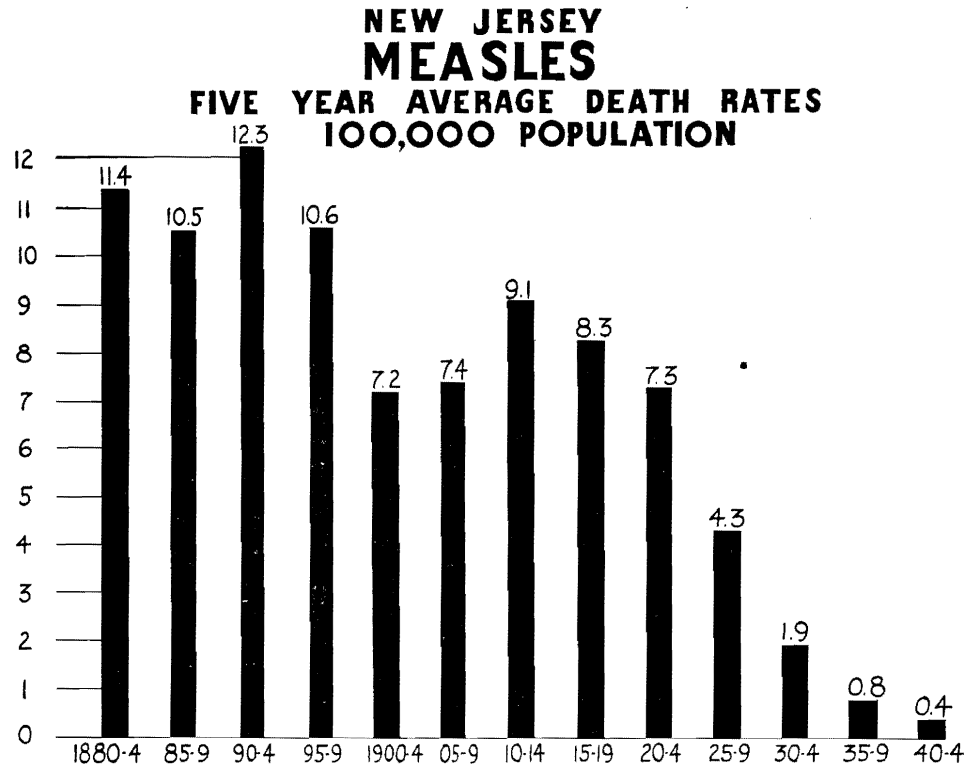
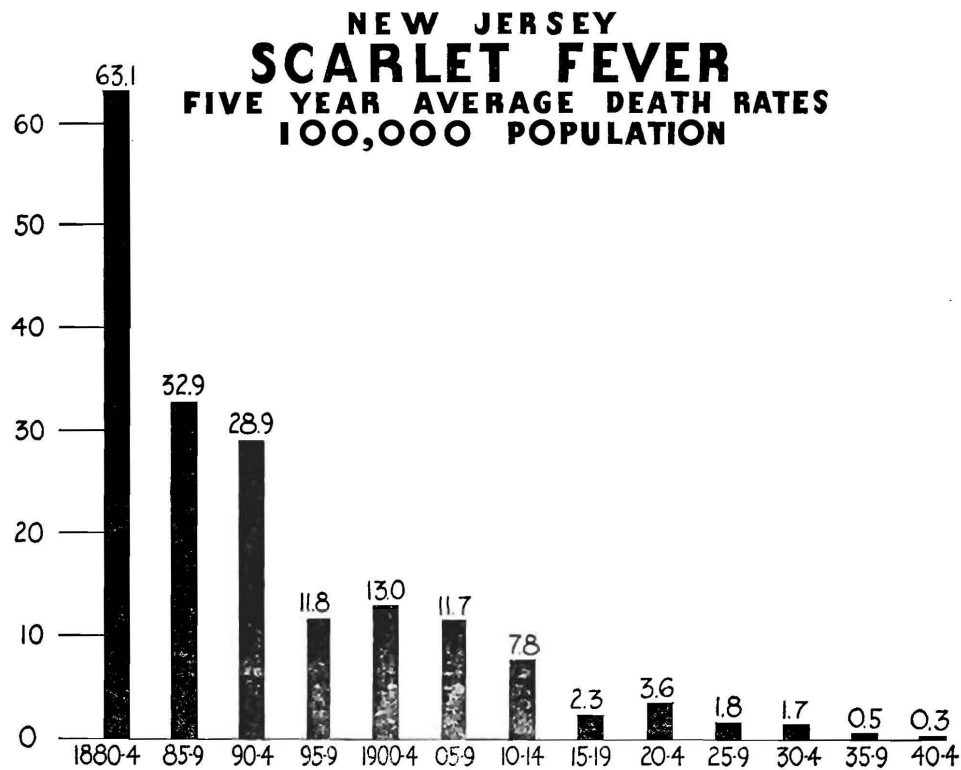


CHART 4



Whooping Cough.—This disease caused twenty-four deaths during 1947; for 1946 the number was twenty-seven and for 1945, twenty-four. The 1947 death rate was 0.5 per 100,000 population. Nineteen of the deaths occurred during the first year of life.

Diphtheria.—During 1947 fourteen persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.3 per 100,000 population. One death was of a child 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 forty-eight to twenty-five. The following ten-year period showed a decline to eighteen. The rate for 1947 was decidedly favorable when compared with the 1947 rate for the United States, which was 0.6.

CHART 5

NEW JERSEY WHOOING COUGH FIVE YEAR AVERAGE DEATH RATES 100,000 POPULATION

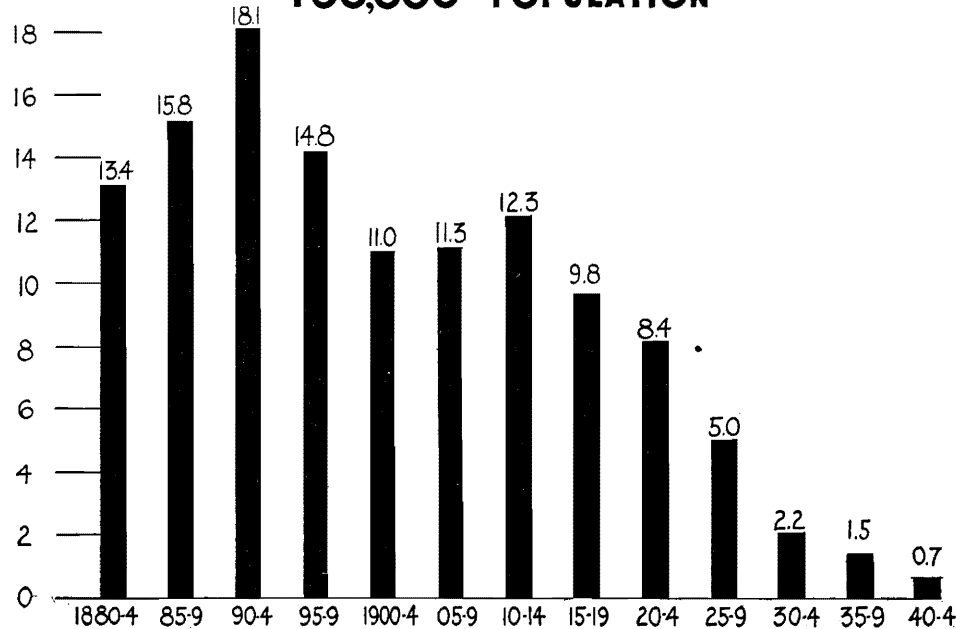
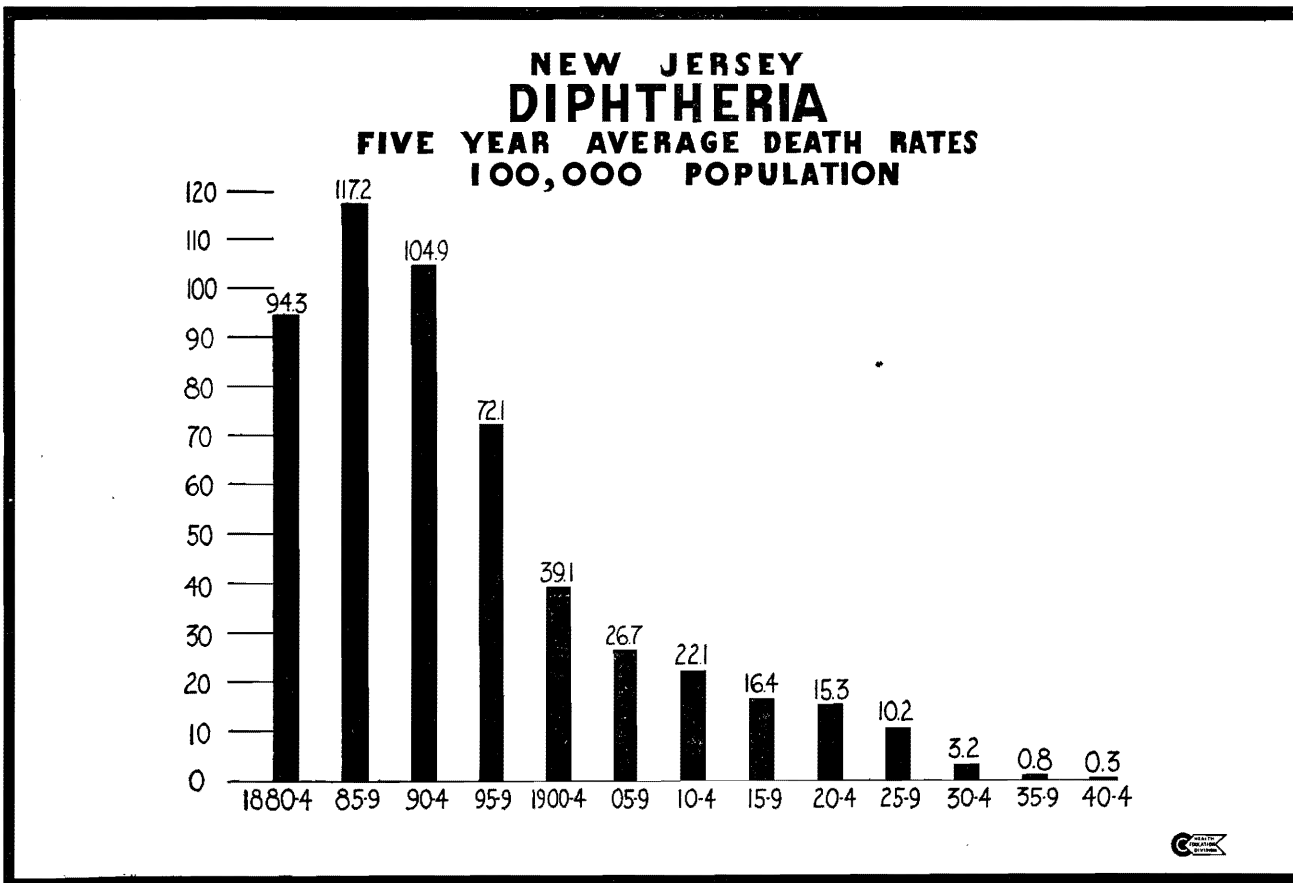


CHART 6



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Tuberculosis.—The number of deaths from all forms of tuberculosis during 1947 was 1,561 of which 1,464 were deaths from tuberculosis of the respiratory system. The death rates per 100,000 population were 35.2 and 33.0 respectively. The rates for 1946 were 38.2 and 35.7.

White.—The number of deaths of white persons from all forms of tuberculosis was 1,174. This was equivalent to a rate of 28.0 per 100,000 white population. Similar figures for 1946 were 1,258 and 30.9.

Colored.—The number of deaths from all forms of tuberculosis was 387 and the rate was 158.7 per 100,000 colored population. Similar figures for 1946 were 385 and 162.6.

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 1947 was 7,742 and the death rate was 174.6 per 100,000 population compared with 170.2 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.

NEW JERSEY TUBERCULOSIS - RESPIRATORY SYSTEM FIVE YEAR AVERAGE DEATH RATES 100,000 POPULATION

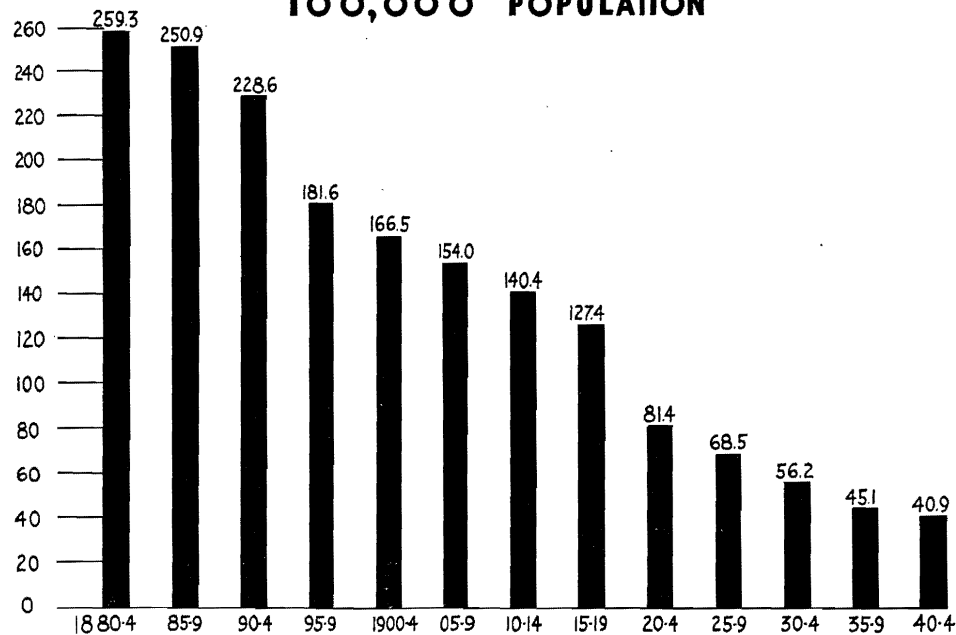


CHART 7

CHART 8

**NEW JERSEY
CANCER
FIVE YEAR AVERAGE DEATH RATES
100,000 POPULATION**

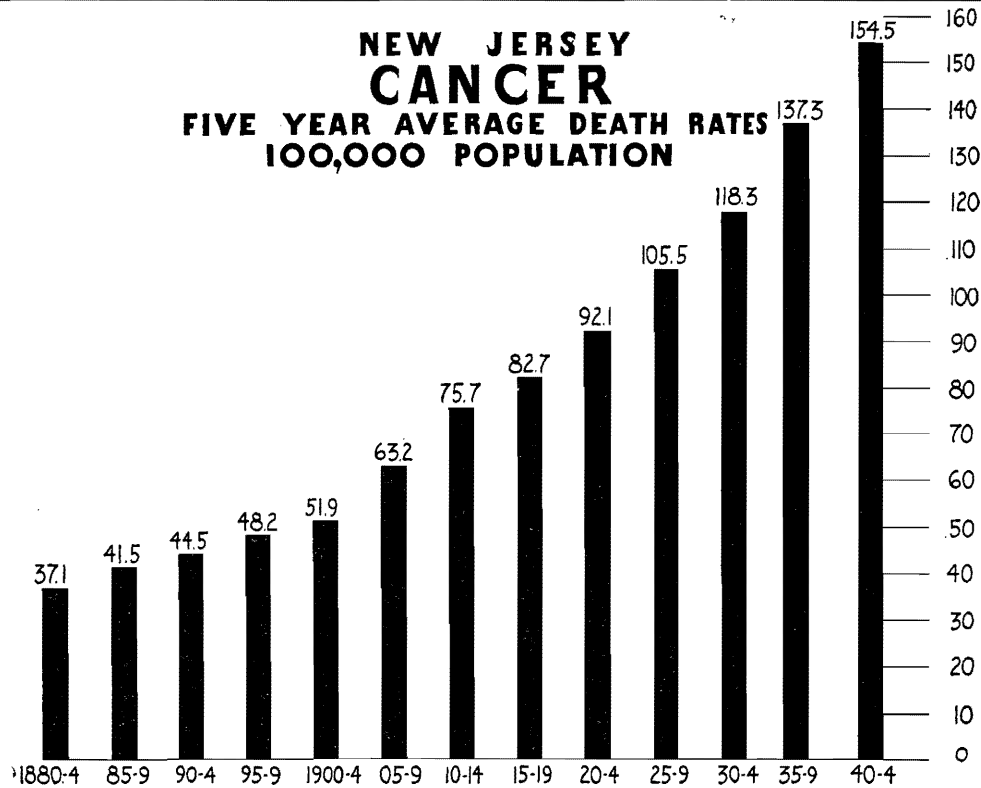


TABLE 12—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY ORGAN AFFECTED—NEW JERSEY, 1947

CANCER AND OTHER MALIGNANT TUMORS	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	
Buccal Cavity and Pharynx—																					
Male							2	1	1	2	7	21	22	32	34	24	16	17	4	....
Female							1	1	5	3	3	2	1	6	3	3	4	7	1	....
Total							3	2	6	2	10	23	23	38	37	27	20	24	5	....
Digestive Organs and Peritoneum—																					
Male	2	1	1	....	....	4	2	14	33	47	109	169	280	320	371	304	225	116	33	8
Female						1	7	12	29	59	67	124	199	214	246	270	222	135	54	8	
Total	2	1	1	....	....	5	9	26	62	106	176	293	479	534	617	574	447	251	87	16
Respiratory System—																					
Male							1	3	8	25	48	81	130	151	103	77	46	12	1	1	
Female							2	...	3	1	3	15	19	23	19	11	12	10	....	....
Total							3	3	11	26	51	96	149	174	122	88	58	22	1	1	
Uterus—Female						1	2	7	26	36	53	72	72	67	70	64	30	24	9	2	
Other Female Genital Organs		1	....	1	1	2	1	6	5	24	18	39	28	38	22	28	9	8	3	1
Breast—																					
Male									1	....	....	....	....	....	1	1	2	2	....	....
Female						2	1	10	29	61	73	110	102	87	78	78	52	37	28	4	
Total						2	1	10	30	61	73	110	102	87	79	79	54	39	28	4	
Male Genital Organs		1	....		1	4	4	1	3	2	5	7	19	35	68	78	71	46	23	2
Urinary Organs (Male and Female)—																					
Male		2	....		....		1	1	2	3	16	25	46	50	43	44	30	19	9	3
Female		1	2	....		1	1	1	...	3	5	14	9	24	17	16	26	19	6	1
Total		3	2	....	1	1	2	2	2	6	21	39	55	74	60	60	56	38	15	4

Skin (Except Vulva and Scrotum)—																						
Male	1					3		1		2		2	5	4	6	8	9	4	3	6	54	
Female	1						1		1			1	5	3	3	3	3	3	2	32		
Total	2					3	1	2	1	2	1	7	7	5	11	11	12	7	6	8	86	
Brain and Other Parts of the Central Nervous System (Including Glioma, Except When Specified as Benign)—																						
Male	1	8	2	2	2		2	5	4	6	4	10	21	10	2	3					82	
Female	1	3	3			1	2	3	2	4	5	12	9	6							51	
Total	2	11	5	2	2	1	4	8	6	10	9	22	30	16	2	3					133	
Other and Unspecified Organs—																						
Male	2	3			1	4	6	1	11	16	18	29	35	38	30	23	22	10	3	2	254	
Female	4	2	1	2	2	4	4	4	5	15	11	22	26	32	29	33	15	7	5		219	
Total		6	5	1	3	6	10	5	16	31	29	51	61	70	59	56	37	17	8	2	473	
Total Male	3	15	6	2	4	15	18	27	63	103	207	344	558	640	658	562	421	226	76	22	3970	
Total Female	1	10	7	2	3	10	22	45	105	203	239	415	467	498	489	506	373	250	109	18	3772	
Total Male and Female	4	25	13	4	7	25	40	72	168	306	446	759	1025	1138	1147	1068	794	476	185	40	7742	

**TABLE 12A—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY PART OF BODY
AFFECTED AND COLOR OF DECEDENT—NEW JERSEY—1947**

	Total		White		Colored			Total		White		Colored	
	M	F	M	F	M	F		M	F	M	F	M	F
Cancer of the buccal cavity and pharynx	183	37	177	34	6	3	Cancer of the breast	7	752	7	710	...	42
Lip	16	2	16	2	...	...	Cancer of the male genital organs ..	370	...	352	...	18	...
Tongue	53	7	50	6	3	1	Scrotum .....	...	...	...	...	...	...
Mouth	19	7	19	7	...	...	Prostate	347	...	331	...	16	...
Jaw bone	30	9	30	8	...	1	Testes	17	...	17	...	...	...
Unspecified parts of the buccal cavity	3	...	3	...	...	...	Penis	6	...	4	...	2	...
Pharynx	62	12	59	11	3	1	Other and unspecified sites .....	...	...	...	...	...	...
Cancer of the digestive organs and peritoneum	2039	1047	1950	1565	89	82	Cancer of the urinary organs	294	146	282	145	12	1
Esophagus	152	35	142	30	10	5	Kidney	79	46	74	46	5	...
Stomach	644	418	608	390	36	28	Bladder	214	100	207	99	7	1
Duodenum	4	4	3	4	1	...	Other and unspecified sites	1	...	1	...	...	...
Rectum and anus	330	217	322	204	8	13	Cancer of the skin (except vulva and scrotum)	54	32	54	31	...	1
Intestines (except duodenum and rectum)	504	587	488	570	16	17	Cancer of the brain and other parts of the central nervous system (including glioma, except when specified as benign)	82	51	82	51	...	...
Liver and biliary passages	156	201	149	192	7	9	Glioma	45	22	45	22	...	...
Pancreas	203	124	194	117	9	7	Other and unspecified cancers of the brain and central nervous system	37	29	37	29	...	...
Mesentery and peritoneum	20	28	19	27	1	1	Cancer of other and unspecified organs	254	219	235	203	19	16
Other and unspecified sites	26	33	25	31	1	2	Adrenal gland	6	2	6	2	...	...
Cancer of the respiratory system	687	118	660	113	27	5	Bone (except jaw bone and accessory sinuses)	42	36	38	35	4	1
Larynx	82	6	81	4	1	2	Thyroid gland	12	23	11	23	1	...
Trachea	2	1	1	1	1	...	Nasal cavity and accessory sinuses	8	5	6	5	2	...
Bronchus	216	27	208	26	8	1	Other and unspecified organs	186	153	174	138	12	15
Lung	367	81	351	79	16	2							
Pleura	4	...	4	...	...	...				
Mediastinum and unspecified sites ..	16	3	15	3	1	...							
Cancer of the uterus .....	...	535	...	482	...	53							
Cervix .....	...	228	...	201	...	27							
Other and unspecified sites .....	...	307	...	281	...	26							
Cancer of other female genital organs ..	...	235	...	222	...	13							
Ovary .....	...	206	...	195	...	11							
Fallopian tube and parametrium ..	...	1	...	1	...	...					
Vagina .....	...	13	...	11	...	2							
Vulva	14	...	14							
Other and unspecified sites	1	...	1							
Grand Totals	3970	3772	3799	3556	171	216							

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Encephalitis Lethargica or Sleeping Sickness.—Eighteen deaths were assigned to this classification for the year 1947. In 1922, which was the year that such deaths were first separately classified, there were forty-five deaths. Twenty-four deaths were recorded in 1946.

Nephritis.—Deaths due to acute and chronic nephritis totaled 2,629, compared with 2,639 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 1947 showed a decrease of forty from the number for 1946. Of the various means employed, hanging or strangulation held first place with poisonous gases and firearms in second and third places respectively. The number of deaths by suicide for ten years follows:

1938	682	1943	492
1939	563	1944	483
1940	664	1945	519
1941	598	1946	566
1942	537	1947	526

TABLE 13A—VIOLENT OR ACCIDENTAL DEATHS IN NEW JERSEY—1947
(International Classification Numbers 163-195)

SUICIDE BY SOLID OR LIQUID POISONS		ACCIDENTAL ABSORPTION OF POISONOUS GAS	
Arsenic and compounds	2	Illuminating gas	87
Barbituric acid and derivatives	15	Motor vehicle exhaust gas	12
Cresol compounds	1	Other carbon monoxide gas	6
Mercury and compounds	1	Other poisonous gases	8
Nux vomica and strychnine .....	...	
Carbolic acid and phenol .....	...	
Other solid or liquid poisons	26		
SUICIDE BY POISONOUS GASES		ACUTE ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS	
Illuminating gas	115	Arsenic and compounds	1
Motor vehicle exhaust gas	18	Barbituric acid and derivatives	17
Other carbon monoxide gas	1	Cresol compounds .....	...
Other poisonous gases .....	...	Mercury and compounds .....	...
		Nux vomica and strychnine .....	...
		Carbolic acid and phenol .....	...
		Lye and potash	2
		Tobacco and derivatives .....	...
		Narcotics .....	...
		Methanol and other alcohols	5
		Other and unspecified substances	8
SUICIDE BY OTHER MEANS		Conflagration	95
Hanging or strangulation	185	Accidental burns (except due to conflagration)	77
Drowning	24	Accidental mechanical suffocation	50
Firearms and explosives	93	Accidental drowning	168
Cutting or piercing instruments	23	Accidental injury by firearms	21
Jumping from high places	19	Accidental injury by cutting or piercing instruments	6
Crushing	3		
Other or unspecified means	6		
Infanticide (homicide of infants under 1 year of age)	7		
Homicide by firearms	52	ACCIDENTAL INJURY BY FALL OR CRUSHING	
Homicide by cutting or piercing instruments	30	Fall	829
Homicide by other means	53	Crushing	10
Railway accidents (except collisions with motor vehicles)	56	Cataclysm (all deaths attributed to a cataclysm regardless of their nature) .....	...
MOTOR VEHICLE ACCIDENTS		Injury by animals (not specified as venomous or occurring in the course of agricultural and forestry operations) .....	...
Collisions between automobiles and trains	13	Hunger or thirst	1
Collisions between automobiles and street cars	1	Excessive cold	11
Automobile accidents (except collisions with trains or street cars)	638	Excessive heat	8
Motorcycle accidents (except collisions with automobiles)	15	Lightning	3
		Accidents due to electric currents (except lightning)	23
		Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations) .....	...
STREET CAR AND OTHER ROAD-TRANSPORT ACCIDENTS		OTHER ACCIDENTS	
Street car accidents (except collisions with trains or motor vehicles)	5	Sequelae of preventive immunization, inoculation or vaccination	4
Other and unspecified road-transport accidents	4	Other accidents due to medical or surgical intervention	1
Water-transport accidents	32	Lack of care of the newborn	1
Air-transport accidents	34	Obstruction, suffocation or puncture by ingested objects	38
Accidents in mines and quarries	1	Other and unspecified accidents	86
AGRICULTURAL AND FORESTRY ACCIDENTS			
Accidents involving agricultural machinery and vehicles	9		
Injury by animals in agriculture	4		
Other agricultural accidents	6		
Accidents involving forestry machinery and vehicles .....	...	
Other forestry accidents		
Other accidents involving machinery	15		
Food poisoning	4		

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TABLE 13B—MOTOR VEHICLE FATALITIES IN NEW JERSEY
BY TYPE OF ACCIDENT—1947

Total	667
Collision with	
Railroad train	11
Street car	2
Horse-drawn vehicle .....	..
Motorcycle	12
Pedestrian	342
Bicycle	12
Other motor vehicle	145
Fixed object	93
Non-collision	47
Type not stated	3

TABLE 13C—ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF
DEATH AND PLACE OF OCCURRENCE—1947

(International Classification Numbers 169-195)

	<i>Total</i>	<i>Home</i>	<i>Farm</i>	<i>Accidents in</i>		<i>Other</i>	<i>Not Stated</i>
				<i>Place</i>	<i>Place</i>		
Total	2,412	996	23	144	1,215	..	34
Poisonous gas	145	115	..	10	20	..	..
Burns	161	122	..	14	25	..	..
Mechanical suffocation	50	46	..	1	3	..	..
Drowning	200	8	1	9	180	..	2
Cutting or piercing	4	1	..	1	2	..	..
Fall	849	587	3	38	211	..	10
Crushing, landslide	781	4	9	39	721	..	8
Electric currents	24	4	3	11	6	..	..
Other and unspecified injuries	198	109	7	21	47	..	14

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—1947

(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total	2,412	667	829	172	168
Atlantic County	93	33	36	8	2
Bergen County	180	45	59	10	11
Burlington County	73	31	16	6	6
Camden County	136	32	49	18	9
Cape May County	35	7	3	2	12
Cumberland County	60	24	12	5	5
Essex County	393	76	177	36	12
Gloucester County	63	35	9	4	5
Hudson County	288	50	138	17	28
Hunterdon County	31	10	7	4	1
Mercer County	143	49	46	11	4
Middlesex County	148	53	38	11	7
Monmouth County	121	33	33	3	8
Morris County	79	24	22	4	9
Ocean County	63	20	14	3	7
Passaic County	169	50	69	7	14
Salem County	43	15	11	4	5
Somerset County	67	20	20	7	5
Sussex County	31	8	4	4	7
Union County	132	32	51	4	7
Warren County	28	11	9	2	2
Other States	22	8	4	2	2
Not stated	14	1	2

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TABLE 13E—ACCIDENTAL DEATHS IN NEW JERSEY BY MONTH OF DEATH—1947

(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total	2,412	667	829	172	168
January	208	61	70	16	3
February	180	30	68	12	12
March	197	58	48	31	8
April	190	52	68	18	14
May	186	50	54	9	11
June	179	47	63	3	19
July	211	53	64	9	47
August	213	60	83	9	23
September	192	63	74	8	13
October	188	49	80	13	10
November	201	66	74	12	3
December	267	78	83	32	5

TABLE 13F—ACCIDENTAL DEATHS IN NEW JERSEY BY AGE OF DECEASED—1947

(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	2,412	667	829	172	168
Under 1 year	95	2	4	7	1
1 to 4	102	31	8	29	18
5 to 9	65	24	1	7	22
10 to 14	58	17	7	3	18
15 to 19	88	44	3	4	15
20 to 24	108	63	7	..	12
25 to 64	986	353	218	69	69
65 and over	910	133	581	53	13

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TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL, IN NEW JERSEY—1947

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Males—Percentage of Total	
			Females—Percentage of Total	
	ALL CAUSES	100.0	55	45
1	Typhoid and paratyphoid fevers	0.0	33	67
2	Plague .....	..	..	..
3	Scarlet fever	0.0	..	100
4	Whooping cough	0.0	21	79
5	Diphtheria	0.0	64	36
6	Tuberculosis of the respiratory system	3.0	66	34
7	All other forms of tuberculosis	0.2	53	47
8	Malaria	0.0	100	..
9	Syphilis	0.6	75	25
10	Influenza	0.2	56	44
11	Smallpox	0.0	100	..
12	Measles	0.0	25	75
13	Typhus fever	0.0	40	60
14	Other infectious or parasitic diseases	0.4	56	44
15	Cancer and other malignant tumors	16.0	51	49
16	Nonmalignant tumors or tumors of unspecified nature	0.4	37	63
17	Chronic rheumatism and gout	0.1	21	79
18	Diabetes mellitus	3.2	33	67
19	Chronic or acute alcoholism	0.1	80	20
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	1.1	52	48
21	Meningitis (nonmeningococcal) and diseases of the spinal cord ..	0.3	56	44
22	Intracranial lesions of vascular origin	8.5	44	56
23	Other diseases of the nervous system and sense organs	0.7	51	49
24	Diseases of the heart	35.8	58	42
25	Other diseases of the circulatory system	2.7	47	53
26	Bronchitis	0.2	64	36
27	Pneumonia and bronchopneumonia	3.1	58	42
28	Other diseases of the respiratory system	0.6	61	39
29	Diarrhea and enteritis	0.3	53	47
30	Appendicitis	0.4	60	40
31	Diseases of the liver and biliary passages	1.8	57	43
32	Other diseases of the digestive system	1.8	65	35
33	Nephritis	5.4	49	51
34	Other diseases of the urinary and genital systems	0.9	76	24
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	48	52
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	4.9	58	42
39	Senility, old age	0.3	31	69
40	Suicide	1.1	72	28
41	Homicide	0.3	71	29
42	Automobile accidents (all motor-driven road vehicles)	1.4	78	22
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	3.6	60	40
44	Causes of death ill-defined, unknown, or unspecified	0.1	69	31

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TABLE 15—DEATH RATES, TOTAL WHITE AND COLORED, FROM IMPORTANT CAUSES, PER 100,000 TOTAL, WHITE AND COLORED POPULATION IN NEW JERSEY—1947

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	1088.5	1067.4	1452.1
1	Typhoid and paratyphoid fevers	0.1	0.1	0.8
2	Plague .....	..	..	..
3	Scarlet fever	0.0	0.0	0.4
4	Whooping cough	0.5	0.5	1.6
5	Diphtheria	0.3	0.3	..
6	Tuberculosis of the respiratory system	33.0	26.6	143.1
7	All other forms of tuberculosis	2.2	1.4	15.6
8	Malaria	0.0	0.0	..
9	Syphilis	6.4	4.3	41.8
10	Influenza	1.7	1.6	3.3
11	Smallpox	0.0	..	0.4
12	Measles	0.1	0.1	..
13	Typhus fever	0.1	0.1	..
14	Other infectious or parasitic diseases	4.6	4.4	8.6
15	Cancer and other malignant tumors	174.6	175.5	158.7
16	Nonmalignant tumors or tumors of unspecified nature	4.6	4.2	11.9
17	Chronic rheumatism and gout	0.9	1.0	..
18	Diabetes mellitus	35.2	35.4	32.8
19	Chronic or acute alcoholism	1.6	1.5	3.3
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	11.8	11.7	13.9
21	Meningitis (nonmeningococcal) and diseases of the spinal cord ..	3.1	3.0	4.1
22	Intracranial lesions of vascular origin	92.6	92.1	101.3
23	Other diseases of the nervous system and sense organs	7.2	7.1	9.0
24	Diseases of the heart	389.6	391.5	356.3
25	Other diseases of the circulatory system	29.8	29.9	27.1
26	Bronchitis	2.3	2.3	2.5
27	Pneumonia and bronchopneumonia	33.4	30.8	79.1
28	Other diseases of the respiratory system	6.3	6.2	8.2
29	Diarrhea and enteritis	3.4	3.2	6.1
30	Appendicitis	4.1	4.0	6.6
31	Diseases of the liver and biliary passages	19.9	20.2	14.3
32	Other diseases of the digestive system	19.9	19.5	27.1
33	Nephritis	59.3	55.8	119.7
34	Other diseases of the urinary and genital systems	9.3	8.9	15.2
35	Puerperal infection	0.7	0.5	2.5
36	Other diseases of pregnancy, childbirth, and the puerperium	1.7	1.6	2.9
37	Diseases of the skin, cellular tissue, bones, and organs of move- ment	1.6	1.6	1.6
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	53.4	50.0	112.3
39	Senility, old age	3.3	3.2	4.5
40	Suicide	11.9	12.2	5.7
41	Homicide	3.2	2.0	23.0
42	Automobile accidents (all motor-driven road vehicles)	14.7	14.6	16.8
43	Other violent or accidental deaths (suicide, homicide, and auto- mobile accidents excepted)	38.6	37.0	66.4
44	Causes of death ill-defined, unknown, or unspecified	1.5	1.3	3.7

TABLE 16—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATHS, IN NEW JERSEY—1947

Abridged International List Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
	ALL CAUSES	48276	4531	4017	4496	4111	3945	3725	3665	3552	3599	3996	3998	4641
1	Typhoid and paratyphoid fevers	6	.....	2	.....	.....	1	1	.....	1	.....	.....	1	.....
2	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
4	Whooping cough	24	1	2	2	3	2	1	5	2	1	2	2	1
5	Diphtheria	14	.....	.....	1	.....	3	2	.....	.....	.....	.....	3	3
6	Tuberculosis of the respiratory system	1464	123	128	142	161	132	120	120	117	90	135	92	104
7	All other forms of tuberculosis	97	6	9	8	7	13	6	7	8	14	8	6	5
8	Malaria	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
9	Syphilis	283	23	33	24	23	16	20	23	20	15	25	32	29
10	Influenza	75	14	3	16	9	6	1	4	1	3	4	4	10
11	Smallpox	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles	4	.....	.....	1	1	1	.....	.....	.....	.....	.....	1	.....
13	Typhus fever	5	.....	.....	.....	.....	1	1	.....	2	1	.....	.....	.....
14	Other infectious or parasitic diseases	206	20	16	22	22	16	10	21	23	6	16	18	16
15	Cancer and other malignant tumors	7742	674	598	661	618	599	663	653	627	666	648	641	694
16	Nonmalignant tumors or tumors of unspecified nature	205	21	14	23	10	17	13	23	22	13	9	22	18
17	Chronic rheumatism and gout	42	6	4	3	2	4	4	2	2	4	5	.....	6
18	Diabetes mellitus	1562	158	130	139	141	131	112	126	101	110	118	130	166
19	Chronic or acute alcoholism	69	5	1	6	7	9	4	1	9	1	5	10	11
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	523	43	45	56	39	39	42	38	48	43	60	33	37
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	137	13	9	11	8	14	14	10	13	5	14	9	17
22	Intracranial lesions of vascular origin	4105	363	359	366	341	314	324	318	313	270	359	360	418
23	Other diseases of the nervous system and sense organs	320	30	36	31	18	27	28	14	32	24	19	32	29
24	Diseases of the heart	17279	1612	1430	1609	1450	1444	1324	1261	1189	1243	1425	1506	1756
25	Other diseases of the circulatory system	1320	132	136	120	147	86	90	92	96	99	106	105	111
26	Bronchitis	101	14	9	8	2	8	5	3	6	9	8	10	19

27	Pneumonia and bronchopneumonia	1483	204	146	180	139	102	72	81	77	83	124	107	168
28	Other diseases of the respiratory system	280	22	19	27	27	17	19	26	37	23	16	27	20
29	Diarrhea and enteritis	149	10	16	26	20	8	8	13	7	9	13	6	13
30	Appendicitis	184	12	11	16	17	10	11	22	18	20	21	13	13
31	Diseases of the liver and biliary passages	883	80	68	92	88	77	62	55	58	68	71	81	83
32	Other diseases of the digestive system	884	75	74	72	70	70	71	64	65	73	88	68	93
33	Nephritis	2629	298	239	272	230	216	212	177	157	179	210	202	237
34	Other diseases of the urinary and genital systems	411	28	25	50	41	30	32	38	27	33	36	28	34
35	Puerperal infection	29	4	.....	4	2	2	4	4	2	5	.....	2	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	76	8	3	2	9	9	3	6	6	12	8	5	5
37	Diseases of the skin, cellular tissue, bones, and organs of movement	69	6	6	8	3	5	7	4	9	7	5	3	6
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	2368	220	202	238	193	232	198	181	176	208	188	163	169
39	Senility, old age	147	18	12	15	12	15	13	5	9	6	8	10	24
40	Suicide	526	34	42	43	42	59	40	58	49	43	33	42	41
41	Homicide	140	8	8	9	9	8	16	15	17	9	12	15	14
42	Automobile accidents (all motor-driven road vehicles)	652	66	27	51	53	50	43	43	57	67	55	63	77
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) ..	1714	148	147	140	135	140	123	145	144	128	138	135	191
44	Causes of death ill-defined, unknown, or unspecified	65	2	6	2	11	3	5	7	5	9	4	9	2

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TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS) FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX AND COLOR
IN NEW JERSEY, 1947—Continued

CAUSE OF DEATH, SEX, AND COLOR		AGE PERIODS—YEARS																										
		All deaths	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	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	Age unknown	
12	Measles—																											
	Total	4	1	1				2	2																			
	Males—White	1	1					1																				
	Males—Colored																											
	Females—White	3		1				1	2																			
	Females—Colored																											
13	Typhus fever—																											
	Total	5																	1		2	2						
	Males—White	2																	1		1							
	Males—Colored																											
	Females—White	3																			1	2						
	Females—Colored																											
14	Other infectious or parasitic diseases—																											
	Total	206	13	5	2	2	5	27	11	4	8	16	12	8	18	16	14	16	9	9	17	10	4	6	1			
	Males—White	105	5	2			4	11	8	2	3	4	7	5	9	9	6	12	6	3	11	5	1	3				
	Males—Colored	11	2			1		3			1	3					1					2	1					
	Females—White	80	5	3	2	1	1	12	3	2	4	8	4	3	7	5	6	4	2	6	6	3	2	2	1			
	Females—Colored	10	1					1				1	1		2	2	1		1					1				
15	Cancer and other malignant tumors—																											
	Total	7742	4	7	11	3	4	29	13	4	7	25	40	72	168	306	446	759	1025	1138	1147	1068	794	476	185	40		
	Males—White	3799	3	3	9	1	2	18	5	2	4	13	18	25	60	96	192	317	525	616	635	538	414	225	75	21		
	Males—Colored	171						1				2		2	3	7	15	27	33	24	23	24	7	1	1	1		
	Females—White	3556	1	3	2	2	2	10	7	1	3	10	19	41	93	181	218	388	438	466	465	485	361	246	106	18		
	Females—Colored	216		1				1		1			3	4	12	22	21	27	29	32	24	21	12	4	3			
16	Nonmalignant tumors or tumors of unspecified nature—																											
	Total	205	2	1	1		2	6		3	3	7	11	20	14	20	25	27	19	12	8	12	11	3	3	1		
	Males—White	67	1	1	1		1	4		1	2	2	2	6	2	2	3	8	9	8	6	5	6	1				
	Males—Colored	8										1		1		1	2	2	1									
	Females—White	109	1				1	2		1	1	4	9	10	7	15	14	17	8	3	2	7	4	1	3	1		
	Females—Colored	21								1				3	5	2	6		1	1			1	1				

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TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS) FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX AND COLOR
IN NEW JERSEY, 1947—Continued

CAUSE OF DEATH, SEX, AND COLOR		AGE PERIODS—YEARS																										
		All deaths	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	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	Age unknown	
24	Diseases of the heart—																											
	Total	17279	3	.....	1	1	1	6	9	13	30	35	67	121	237	429	770	1260	1748	2021	2382	2618	2343	1782	1015	393	.....
	Males—White	9485	1	.....	.....	1	.....	2	4	2	16	13	28	55	135	267	489	853	156	1234	1377	1432	1091	778	428	125	.....
	Males—Colored	483	.....	.....	.....	.....	.....	1	.....	.....	1	.....	9	6	13	30	54	68	59	53	67	44	21	30	15	12	.....
	Females—White	6925	2	.....	1	.....	1	4	1	11	12	18	28	52	74	109	193	300	493	694	892	1094	1200	946	556	248	.....
	Females—Colored	386	.....	.....	.....	.....	.....	3	.....	.....	1	4	2	8	15	23	34	39	40	40	46	48	31	28	16	8	.....
25	Other diseases of the circulatory system—																											
	Total	1320	2	.....	.....	.....	.....	2	1	2	.....	3	4	7	7	28	29	39	54	83	127	174	235	255	172	98	.....
	Males—White	597	2	.....	.....	.....	.....	2	.....	.....	.....	1	3	2	4	13	14	20	28	41	74	81	111	103	72	28	.....
	Males—Colored	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	5	3	2	2	2	1	2	3	3	2	1	4	.....
	Females—White	637	.....	.....	.....	.....	.....	1	2	.....	2	.....	1	3	3	6	9	15	21	36	44	87	120	149	95	63	.....
	Females—Colored	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	3	2	3	5	7	3	1	1	4	3	.....
26	Bronchitis—																											
	Total	101	15	7	4	4	.....	30	2	1	.....	.....	1	.....	2	2	2	3	11	8	11	11	5	6	4	2	.....
	Males—White	62	6	4	1	3	.....	14	2	.....	.....	.....	.....	.....	1	2	1	2	11	5	10	6	4	2	2	.....	.....
	Males—Colored	3	1	.....	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females—White	33	7	2	2	1	.....	12	.....	1	.....	.....	.....	.....	1	.....	1	1	.....	3	1	4	1	4	2	2	.....
	Females—Colored	3	1	1	.....	.....	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and broncho-pneumonia—																											
	Total	1483	266	35	10	10	6	327	12	9	11	19	18	22	18	51	73	80	100	117	128	141	142	109	74	32	.....
	Males—White	737	132	19	4	3	1	159	5	5	3	6	6	11	8	23	31	44	63	75	62	71	71	55	28	13	.....
	Males—Colored	119	27	2	2	4	2	37	.....	1	1	3	3	2	2	10	16	9	11	8	5	5	4	1	.....	1	.....
	Females—White	553	88	10	3	3	3	107	6	2	7	7	8	7	4	14	18	22	22	30	57	59	66	51	48	18	.....
	Females—Colored	74	19	4	1	.....	.....	24	1	1	.....	3	1	2	4	4	8	5	4	4	4	6	1	2	.....	.....	.....
28	Other diseases of the respiratory system—																											
	Total	280	6	.....	1	1	1	9	3	1	2	6	10	6	9	14	16	26	20	42	32	32	28	9	7	8	.....
	Males—White	164	4	.....	.....	.....	.....	4	3	.....	1	1	2	.....	4	8	12	17	16	30	25	23	9	3	3	3	.....
	Males—Colored	8	.....	.....	.....	.....	1	1	.....	1	.....	1	1	.....	1	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
	Females—White	96	2	1	1	4	1	4	6	3	4	2	3	7	4	10	7	8	18	6	4	5	
	Females—Colored	12	1	3	1	3	1	1	1	1	1	

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TABLE 18—DEATHS (exclusive of stillbirths) BY CAUSES, BY DAYS, WEEKS AND MONTHS OF THE FIRST YEAR OF LIFE IN NEW JERSEY—1947

Abridged International List Number	CAUSE OF DEATH	AGE UNDER 1 YEAR, IN COMPLETED DAYS, WEEKS AND MONTHS														
		Under 1 Year	DAYS				WEEKS				MONTHS					
			Under 1	One	Two	3 to 6	Under 1	One	Two	Three	Under 1	One	Two	3 to 5	6 to 8	9 to 11
	ALL CAUSES	2959	1075	335	189	326	1925	108	102	82	2217	158	137	219	134	94
1	Typhoid and paratyphoid fevers															
2	Plague															
3	Scarlet fever															
4	Whooping cough	19								1	1	3	2	8	4	
5	Diphtheria	1														
6	Tuberculosis of the respiratory system	1														
7	All other forms of tuberculosis	5											1		2	
8	Malaria															
9	Syphilis	17	4	1			5	2	1	1	9		4	4		
10	Influenza	13							1		1		2	3	2	
11	Smallpox															
12	Measles	1														
13	Typhus fever															
14	Other infectious or parasitic diseases	13							2		2		1	4	2	
15	Cancer and other malignant tumors	4	1				1				1			1		
16	Nonmalignant tumors or tumors of unspecified nature	2	1				1				1			1		
17	Chronic rheumatism and gout															
18	Diabetes mellitus	2														
19	Chronic or acute alcoholism															
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	42		2	2	1	5		1		6	6	10	9	8	
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	10								2	2		3	3	2	
22	Intracranial lesions of vascular origin	8	3		2		5				5	2			1	
23	Other diseases of the nervous system and sense organs	13	1			1	2	1			3		1	4	3	
24	Diseases of the heart	3	2				2				2					
25	Other diseases of the circulatory system	2						1			1	1				

26	Bronchitis	15	.....	.....	.....	.....	.....	1	.....	1	.....	1	5	5	3
27	Pneumonia and bronchopneumonia	266	5	4	5	23	37	4	12	13	66	37	27	69	23
28	Other diseases of the respiratory system	6	1	.....	.....	.....	1	1	.....	.....	2	1	.....	1	2
29	Diarrhea and enteritis	88	.....	.....	.....	.....	.....	5	9	10	24	22	9	14	4
30	Appendicitis	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
31	Diseases of the liver and biliary passages	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....
32	Other diseases of the digestive system	11	.....	.....	.....	2	2	.....	.....	3	5	1	.....	3	1
33	Nephritis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
34	Other diseases of the urinary and genital systems	3	.....	.....	.....	1	1	.....	.....	.....	1	.....	1	.....	1
35	Puerperal infection .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	2291	1046	324	176	295	1841	90	70	47	2048	66	56	61	28
	Congenital malformations (stillbirths not included)	501	85	35	29	59	208	33	32	21	294	46	48	56	26
	Congenital debility (no other cause stated)	26	8	1	.....	4	13	.....	2	2	17	4	3	1	.....
	Premature birth (no other cause stated)	1176	701	182	70	128	1081	38	25	18	1162	10	4	.....	.....
	Injury at birth	268	124	49	39	37	249	12	2	2	265	2	.....	.....	1
	Other diseases peculiar to the first year of life ..	320	128	57	38	67	290	7	9	4	310	4	1	4	1
39	Senility, old age .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	10	4	2	.....	.....	6	1	.....	.....	7	.....	1	1	1
42	Automobile accidents (all motor-driven road vehicles)	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) ..	92	2	.....	3	1	6	2	5	5	18	18	16	26	5
44	Causes of death ill-defined, unknown, or unspecified	14	5	2	1	2	10	1	.....	.....	11	1	.....	1	.....

TABLE 19—DEATHS (exclusive of stillbirths) UNDER ONE YEAR OF AGE, BY CAUSES AND MONTHS OF DEATH IN NEW JERSEY—1947

Abridged International List Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
1	ALL CAUSES	2959	295	264	317	251	279	237	219	197	244	224	212	220
2	Typhoid and paratyphoid fevers													
3	Plague													
4	Scarlet fever													
5	Whooping cough	19	1	1	2	3	1	1	5	2		1	2	
6	Diphtheria	1					1							
7	Tuberculosis of the respiratory system	1				1								
8	All other forms of tuberculosis	5		2	1		1			1				
9	Malaria													
10	Syphilis	17		2		4	2		2	2			3	1
11	Influenza	13	3		3	2			1		1	2		1
12	Smallpox													
13	Measles	1			1									
14	Typhus fever													
15	Other infectious or parasitic diseases	13		2	1		4	1	1			1	1	2
16	Cancer and other malignant tumors	4				1						1		2
17	Nonmalignant tumors or tumors of unspecified nature	2	1			1								
18	Chronic rheumatism and gout													
19	Diabetes mellitus	2								1	1			
20	Chronic or acute alcoholism													
21	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	42	5	5	5	1	1	6	2	2	5	3	5	2
22	Meningitis (nonmeningococcal) and diseases of the spinal cord	10			2			3		1	1	1		2
23	Intracranial lesions of vascular origin	8	1		2				1	2			1	1
24	Other diseases of the nervous system and sense organs	13	2	3	1		1	1	1			1	1	2
25	Diseases of the heart	3		2										1
26	Other diseases of the circulatory system	2				1					1			

26	Bronchitis	15	3	1	.....	1	1	1	3	.....	2	1	2	
27	Pneumonia and bronchopneumonia	266	47	26	32	29	21	11	13	8	18	16	23	22
28	Other diseases of the respiratory system	6	.....	.....	1	.....	.....	.....	2	.....	.....	.....	2	1
29	Diarrhea and enteritis	88	5	12	20	13	6	5	7	1	6	6	2	5
30	Appendicitis	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
31	Diseases of the liver and biliary passages	3	.....	.....	1	.....	.....	.....	1	.....	.....	.....	1	.....
32	Other diseases of the digestive system	11	1	1	1	.....	2	1	.....	.....	2	1	2	.....
33	Nephritis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	3	.....	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....
35	Puerperal infection .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	2291	214	192	232	186	228	196	175	169	199	183	159	158
	Congenital malformations (stillbirths not included)	501	45	44	63	38	44	35	32	42	38	48	32	40
	Congenital debility (no other cause stated)	26	2	1	6	.....	3	.....	3	1	1	6	2	1
	Premature birth (no other cause stated)	1176	104	89	111	93	125	107	92	85	116	96	76	82
	Injury at birth	268	31	29	27	25	22	28	21	14	20	20	18	13
	Other diseases peculiar to the first year of life ..	320	32	29	25	30	34	26	27	27	24	13	31	22
39	Senility, old age .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	10	1	2	.....	.....	.....	1	1	2	.....	.....	2	1
42	Automobile accidents (all motor-driven road vehicles) ..	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) ..	92	10	11	12	6	9	8	4	1	7	4	5	15
44	Causes of death ill-defined, unknown, or unspecified	14	1	1	2	1	1	2	1	2	1	1	1

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TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	State Total	Atlantic County	Atlantic City	Hammonton	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
1. Typhoid fever	4											
2. Paratyphoid fever	2											
3. Plague												
4. Cholera												
5. Undulant fever (brucellosis)	1											
6. Cerebrospinal (meningococcus) meningitis ..	33					3						
7. Anthrax (infection by <i>Bacillus anthracis</i>) ..												
8. Scarlet fever	2											
9. Whooping cough	24	1				2						
10. Diphtheria	14					1				1		
11. Erysipelas	2											
12. Tetanus	6											
13. Tuberculosis of the respiratory system	1464	54	36	1	4	82	1	2	9		2	5
14. Tuberculosis of the meninges and central nervous system	23	3	3			1						
15. Tuberculosis of the intestines and peritoneum	18											
16. Tuberculosis of the vertebral column	9					2						
17. Tuberculosis of the bones and joints	2											
18. Tuberculosis of the skin and subcutaneous cellular tissue												
19. Tuberculosis of the lymphatic system	2					1			1			
20. Tuberculosis of the genito-urinary system ..	10	1	1			1						
21. Tuberculosis of other organs	3	1	1									
22. Disseminated tuberculosis	30	1		1								
23. Leprosy												
24. Septicemia and purulent infection (non- puerperal)	10	2	1		1							
25. Gonococcus infection	5	1	1									
26. Other diseases due to bacteria (except dysentery)												
27. Dysentery	3											
28. Malaria	1											
29. Other diseases due to parasitic protozoa ..	1											
30. Syphilis	283	11	7		1	21	1	1	3	1	1	3
31. Relapsing fever												
32. Other diseases due to spirochetes	16	1				1						
33. Influenza	75	5	3		2	3						
34. Smallpox	1											
35. Measles	4					1						
36. Acute poliomyelitis and acute polio- encephalitis	10	1			1	1						
37. Acute infectious encephalitis (lethargic) ..	18					2						
38. Other diseases due to filtrable viruses	3											
39. Typhus fever and typhus-like diseases (due to <i>Rickettsia</i>)	5	1										
40. Ankylostomiasis												
41. Hydatid disease	2											
42. Other diseases caused by helminths	1					1						
43. Mycoses	3											
44. Other infectious and parasitic (com- municable) diseases	92	2	1			6		2				
45. Cancer of the buccal cavity and pharynx ..	220	10	6	1	1	16						1
46. Cancer of the digestive organs and peri- toneum	3656	103	61	6	5	339	11	19	18	8	8	28
47. Cancer of the respiratory system	805	29	20		3	64	1	4	3	1	1	6
48. Cancer of the uterus	535	17	10		4	52	1	1	4	3		3
49. Cancer of other female genital organs	235	8	7		1	27			2			3
50. Cancer of the breast	759	21	10	2	4	86	4	1	5	1	2	3
51. Cancer of the male genital organs	370	13	5	2	1	32	2	1	1			2
52. Cancer of the urinary organs (male and female)	440	17	6			55	2		7	1	2	4
53. Cancer of the skin (except vulva and scrotum)	86	4	2			11			1			

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947

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TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Essex County	Belleville	Bloomfield	East Orange	Ivington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
1. Typhoid fever	1								1					1
2. Paratyphoid fever														
3. Plague														
4. Cholera														
5. Undulant fever (brucellosis)														
6. Cerebrospinal (meningococcus) meningitis ..	6								3		1	1		
7. Anthrax (infection by Bacillus anthracis) ..														
8. Scarlet fever	1								1					
9. Whooping cough	1													
10. Diphtheria	1													
11. Erysipelas	1		1											
12. Tetanus														
13. Tuberculosis of the respiratory system	389	12	9	18	8	2	4	15	283	5	20	1	8	18
14. Tuberculosis of the meninges and central nervous system	8		1						5		2			
15. Tuberculosis of the intestines and peritoneum	5								5					
16. Tuberculosis of the vertebral column	3							1	1		1			
17. Tuberculosis of the bones and joints														
18. Tuberculosis of the skin and subcutaneous cellular tissue														
19. Tuberculosis of the lymphatic system														
20. Tuberculosis of the genito-urinary system ..														
21. Tuberculosis of other organs														
22. Disseminated tuberculosis	11					1			10					2
23. Leprosy														
24. Septicemia and purulent infection (non-puerperal)	1	1												1
25. Gonococcus infection	1								1					
26. Other diseases due to bacteria (except dysentery)														
27. Dysentery														
28. Malaria														
29. Other diseases due to parasitic protozoa ..														
30. Syphilis	72	2	3	2	5		1	2	52		4			8
31. Relapsing fever														
32. Other diseases due to spirochetes	3							1	1			1		
33. Influenza	11	3		1		1		1	3		1		1	4
34. Smallpox														
35. Measles														
36. Acute poliomyelitis and acute polio-encephalitis														
37. Acute infectious encephalitis (lethargic) ..	1			1	1			1	3		1			
38. Other diseases due to filtrable viruses	7					1								
39. Typhus fever and typhus-like diseases (due to Rickettsia)	1													
40. Ankylostomiasis														1
41. Hydatid disease	1									1				
42. Other diseases caused by helminths														
43. Mycoses	1							1						
44. Other infectious and parasitic (communicable) diseases	18	1		2	2	1		2	8	1			1	1
45. Cancer of the buccal cavity and pharynx ..	41	3	2	2	1	2	1	1	26		2			3
46. Cancer of the digestive organs and peritoneum	758	19	37	81	51	25	14	43	372	18	35	14	20	60
47. Cancer of the respiratory system	172	6	7	12	15	3	4	8	98	1	2	3	5	17
48. Cancer of the uterus	82	3	4	8	4	2		6	47	2	3	1	1	12
49. Cancer of other female genital organs	54	2	6	6	2	1	1	5	23	1	2		2	8
50. Cancer of the breast	159	3	5	18	11	4	5	11	68	6	6	5	8	14
51. Cancer of the male genital organs	60	2	4	9	4			5	27	1	3	1	2	10
52. Cancer of the urinary organs (male and female)	91	3	2	10	4	2		5	56	2	2	1	1	5
53. Cancer of the skin (except vulva and scrotum)	9			2	1				4		1		1	

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947

Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.
	1				1									1												
	1				2		1											2				1				
	2				1	1						1		2			2	1	2							
1	265	27	1	4	32	147	7	6	1	18	4	16	8	90	11	4	65	59	1	1	18	18	1	1	1	5
	2					2								2			1	4			1					1
	5					4						1														
														1			1	2			1					
														1			1									
	5	1				2		2																		
	1			1		4						1		1			1	3				1			2	1
	2				1	2								1			1	1								
	1									1																
	1						1																			
	35	8			2	16	1	1		1	4	2	2	12	1	2	6	14			5	3				2
	3				1	2								3												
	7					4	1	1	1					1			1	3					1		1	
	1					1																				
	2					1						1		1	1											
	1											1						1								
	15					8				2	1	3	2	5	1	1	3	6				1	3			
	44	5		1	4	19	1	5	1	3	3	3	2	2	8		6	17				4	6	1	2	1
9	600	66		14	44	285	48	30	7	52	13	33	33	179	27	8	112	197	9	11	34	44	6	10	9	25
1	148	23		2	15	63	5	9	3	15	6	5	8	35	2	1	28	40	1	4	6	7	2	1	1	5
3	77	8		1	1	40	5	4	1	8		2	6	25	4	1	13	23	1		6	3	2	1	2	2
	21	3			2	11	2			1		1	1	17	1	1	13	8		1	1	1			1	1
2	115	12	2	2	4	58	6	6		12	3	10	13	35	5	4	17	28		1	5	3			3	3
	46	6	1		2	27		5		5			3	24	4		16	16		2	2	5		2		2
	57	3		1	9	28	1	2	1	9	2	1	4	20	4		13	16	1		3	4		1	1	2
	13	1			1	6	2			2		1	1	1				8			2	2				

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County	Clifton
1. Typhoid fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2. Paratyphoid fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
3. Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4. Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5. Undulant fever (brucellosis) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6. Cerebrospinal (meningococcus) meningitis ..	1	.....	.....	.....	.....	1	.....	.....	.....	.....	4	.....
7. Anthrax (infection by Bacillus anthracis) ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8. Scarlet fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9. Whooping cough	2	.....	.....	1	.....	.....	.....	.....	.....	.....	2	.....
10. Diphtheria	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11. Erysipelas .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12. Tetanus	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
13. Tuberculosis of the respiratory system	56	11	7	3	4	36	6	3	5	17	89	13
14. Tuberculosis of the meninges and central nervous system	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15. Tuberculosis of the intestines and peritoneum	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
16. Tuberculosis of the vertebral column .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17. Tuberculosis of the bones and joints .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18. Tuberculosis of the skin and subcutaneous cellular tissue .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19. Tuberculosis of the lymphatic system .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
20. Tuberculosis of the genito-urinary system ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
21. Tuberculosis of other organs .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22. Disseminated tuberculosis	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
23. Leprosy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24. Septicemia and purulent infection (non-puerperal) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25. Gonococcus infection .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26. Other diseases due to bacteria (except dysentery) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27. Dysentery .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
28. Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29. Other diseases due to parasitic protozoa ..	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30. Syphilis	12	2	2	1	1	3	.....	.....	.....	2	17	.....
31. Relapsing fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32. Other diseases due to spirochetes .....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....
33. Influenza	3	.....	.....	.....	.....	5	.....	.....	.....	.....	7	1
34. Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35. Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36. Acute poliomyelitis and acute polioencephalitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37. Acute infectious encephalitis (lethargic) ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38. Other diseases due to filtrable viruses .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	.....
39. Typhus fever and typhus-like diseases (due to Rickettsia) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40. Ankylostomiasis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41. Hydatid disease .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42. Other diseases caused by helminths .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43. Mycoses	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44. Other infectious and parasitic (communicable) diseases	5	.....	.....	.....	2	6	.....	.....	1	.....	4	.....
45. Cancer of the buccal cavity and pharynx ..	9	2	.....	.....	.....	6	1	1	1	2	19	1
46. Cancer of the digestive organs and peritoneum	154	15	11	20	15	98	8	4	17	49	287	52
47. Cancer of the respiratory system	42	4	1	2	1	23	3	.....	8	9	57	10
48. Cancer of the uterus	27	4	.....	1	2	10	.....	.....	.....	8	34	3
49. Cancer of other female genital organs	9	.....	3	.....	1	13	2	.....	3	1	15	2
50. Cancer of the breast	34	6	3	2	6	31	4	1	4	7	62	8
51. Cancer of the male genital organs	23	1	4	.....	.....	4	.....	.....	.....	5	22	4
52. Cancer of the urinary organs (male and female)	21	4	3	1	1	17	3	5	8	28	3
53. Cancer of the skin (except vulva and scrotum)	10	3	5	2	7	1

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg	
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	2	...	...	1	...	...	...	1	3	...	2	...	...	...	...	...	...	...	...	1	...	...
...	...	2	1	...	...	...	...	...	1	4	...	3	...	1	...	1	...	...	...	...	...	1	...
1	18	47	15	1	4	19	3	3	1	1	87	1	30	3	7	14	7	6	...	3	4	5	7	2
...	...	2	...	...	...	1	...	...	...	3	...	1	...	...	...	...	1	...	...	...	1	...	...
...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	10	6	6	1	8	...	1	2	2	11	...	7	...	...	2	1	...	...	...	...	1	3	...
...	2	4	1	1	1	...	...	...	1	7	...	2	...	1	2	...	1	...	...	...	2	1	1
...	...	...	2	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	1	1	...	...	...	...	...	...	3	1	...	1	...	...	...	...	...	...	...	...	...	...
...	
...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	3	1	...	1	...	...	...	1	10	1	3	1	...	3	...	...	...	...	...	1	...	...
1	6	9	1	...	2	...	...	...	1	14	...	5	...	2	...	1	...	...	...	3	2	3	1
12	54	133	27	9	58	4	7	5	27	288	14	88	14	20	32	17	17	9	15	24	13	44	18	
5	11	28	5	...	9	...	2	1	9	50	2	21	4	2	6	2	...	...	1	4	4	4	...
2	4	18	8	1	11	...	2	2	8	33	1	12	2	2	4	2	1	1	...	4	2	9	4	
1	2	8	2	1	5	...	...	4	...	37	1	11	2	1	5	...	...	...	2	3	1	2	1
4	12	27	5	1	11	3	4	2	5	51	1	14	3	...	9	2	3	2	7	2	3	4	1	
...	1	10	1	1	10	1	4	...	2	38	2	8	...	2	7	3	1	1	6	2	2	11	4	
2	5	14	8	...	8	2	2	...	3	32	2	15	3	2	2	...	1	...	1	...	3	1	...	
...	1	3	2	1	1	...	...	...	1	3	...	1	...	...	...	1	...	...	1	...	...	1	...

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	State Total	Atlantic County	Atlantic City	Hammonton	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
54. Cancer of the brain and other parts of the central nervous system	133	1				16					1	
55. Cancer of other and unspecified organs	473	9	6	1		37	1	3	3	1	1	3
56. Nonmalignant tumors (including dermoid cysts)	139	7	4	1		13		2				
57. Tumors of unspecified nature	66	2	1			10						2
58. Acute rheumatic fever	26					1						
59. Chronic rheumatism and other rheumatic diseases	42	2	1			3						
60. Gout												
61. Diabetes mellitus	1562	52	33	4	4	136	7	2	9	8	6	9
62. Diseases of the pituitary gland	7	1										
63. Diseases of the thyroid and parathyroid glands	75	5	2	1	2	10						
64. Diseases of the thymus gland	45					6	1				1	1
65. Diseases of the adrenal glands (not specified as tuberculous)	14	1										
66. Other general diseases	13					1						
67. Scoury	1											
68. Beriberi												
69. Pellagra	2											
70. Rickets	1											
71. Avitaminoses	3					1						
72. Hemorrhagic conditions	14					2				1		
73. Anemias (except splenic anemia)	63	4	2			6						
74. Leukemias and aleukemias	226	6	3			27		2	3			3
75. Diseases of the spleen	20					3		1				
76. Other diseases of the blood and blood-forming organs	6	1	1			1						
77. Alcoholism	69	2	2			9			1			1
78. Lead poisoning	3											
79. Chronic poisoning by other mineral or organic substances	4											
80. Encephalitis (non-epidemic)	40	2	1			3						1
81. Meningitis (not due to meningococcus)	40	5	3	1		4			1			
82. Diseases of the spinal cord (except locomotor ataxia and disseminated sclerosis)	97	3	2			6					1	
83. Intracranial lesions of vascular origin	4105	155	87	7	13	367	12	8	16	8	9	16
84. Mental diseases and deficiency (except general paralysis of the insane)	52	1	1			6						1
85. Epilepsy	59	5	2	1	2	4						
86. Convulsions (under 5 years of age)	3											
87. Other diseases of the nervous system	144	9	1	1	1	18	1	1	1			
88. Diseases of the organs of vision	2											
89. Diseases of the ear and mastoid process	20	1				1						
90. Pericarditis (except acute rheumatic)	21											
91. Acute endocarditis (except rheumatic)	21	1	1			1		1				
92. Chronic affections of the valves and endocardium	903	45	28		6	81		2			3	4
93. Diseases of the myocardium	9696	277	130	17	33	845	28	42	44	18	32	30
94. Diseases of the coronary arteries and angina pectoris	5615	216	128	3	15	524	15	19	15	7	12	27
95. Other diseases of the heart	1023	62	40	1	8	69	1	1	2	1		2
96. Aneurysm (except of heart and aorta)	108	3	1		1	14	1		1			
97. Arteriosclerosis (except coronary or renal sclerosis)	980	23	13		2	105	4	2	3	2	4	5
98. Gangrene	7											
99. Other diseases of the arteries	104	3	2			4						
100. Diseases of the veins	50					6						
101. Diseases of the lymphatic system												
102. High blood pressure (idiopathic)	69	1				4						1
103. Other diseases of the circulatory system	2					1						
104. Diseases of the nasal fossae and accessory sinuses	4					1						

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Hackensack	Lodi	Lyndhurst Twp.	North Arlington	Ridgefield Park	Ridgewood	Rutherford	Teaneck Twp.	Wallington	Burlington County	Burlington	Camden County	Audubon	Camden	Collingswood	Gloucester City	Haddonfield	Pennsauken Twp.	Cape May County	Cumberland County	Bridgeton	Millville	Vineland
3 2	1	1 3		1		1	2 2	1	1		5 21		1 11	2	1		1	1 2	2 6	1 2	1 2	1
2		1	1		1	2	1		1		9 2		3 1 1	2				2	4 1	3	1	
	1										3											
9	2	7	2	3	3	1	4	1	35	7	86	2	49	4	2	1 3	2	15 1	36	8	5	3
1	1	1					1	1	5		8		1 3	1	1	2		1	3	1		
		1									1 2		1		1							
											4											
			1				1		1		5		3		1	1	1	1	1	1		
1			2		1	3	1		4	1	12	6	1	1	1		1	3	3			1
				1					1		1											
	1	1			2			1											1	1		
		1		1					1		3				1	1					1	
1			1	1					1		3			1				1	8	1	2	
25	6	10	2	15	20	16	26	4	97	5	272	15	110	17	13	17	16	42	101	25	33	6
1	1				1			1	1		4		1 2		2				1			
													7			1			4		1	
2		1		1	2				1		9				1	1		1	3	1		1
									2	1	1		1		2		1		1		1	
									1		3		1									
8	2	2	1	20	44	4	9	4	15	1	72	6	39	5	1		4	8	36	7	14	1
50	17	36	21	15	20	33	46	11	198	24	503	15	207	42	29	23	19	118	187	42	40	24
30	17	26	10	13	23	34	28	6	133	16	392	10	196	23	17	20	25	64	98	19	27	10
6	3	6	3		2	6	3	2	15	2	82	1	39	4	8	2	4	6	26	6	6	1
2	1				1	1	3		2		6	1	1	1				1	3	1	1	
8	1	2	1	6	6	4	3		36	11	45	1	20	2	1	4	4	12	26	7	5	
									3		1											
1									1		3		1	1					1	1		
		2							2		8	1	2		1		1		1			

54. Cancer of the brain and other parts of the central nervous system	24	3	2	2	2	1	1	9	1	1	1	1	1	1
55. Cancer of other and unspecified organs	101	1	4	7	3	1	2	11	62	1	6	1	2	11
56. Nonmalignant tumors (including dermoid cysts)	33	2	2		2	1	1	1	21	2	1	1	1	5
57. Tumors of unspecified nature	16		1	1		2			10	1				
58. Acute rheumatic fever	8		1	1					5		1			
59. Chronic rheumatism and other rheumatic diseases	11		1		1	1	1	1	6					
60. Gout	325	14	10	25	21	9	2	17	183	6	12	3	11	30
61. Diabetes mellitus														
62. Diseases of the pituitary gland														
63. Diseases of the thyroid and parathyroid glands	11		2	3				1	2	1		2		1
64. Diseases of the thymus gland	6								6					3
65. Diseases of the adrenal glands (not specified as tuberculous)	5	1							2					
66. Other general diseases	2								2					1
67. Scurvy														
68. Beriberi														
69. Pellagra	1								1					
70. Rickets														
71. Avitaminoses	1								1					
72. Hemorrhagic conditions	2								1					
73. Anemias (except splenic anemia)	6		1		1			1	2					
74. Leukemias and aleukemias	51		4	4	2	1	1	4	24	1	3	2		2
75. Diseases of the spleen	4			1	2				1					
76. Other diseases of the blood and blood-forming organs	2								2					
77. Alcoholism	17								13				1	
78. Lead poisoning														
79. Chronic poisoning by other mineral or organic substances	2		2											
80. Encephalitis (nonepidemic)	13			1			1		5	2	1	1	1	
81. Meningitis (not due to meningococcus)	8	2							5			1		2
82. Diseases of the spinal cord (except locomotor ataxia and disseminated sclerosis)	27	1	2	4	2	1	1		12				2	1
83. Intracranial lesions of vascular origin	770	16	44	72	61	25	6	40	379	20	28	18	19	80
84. Mental diseases and deficiency (except general paralysis of the insane)	11		1			2		1	7					
85. Epilepsy	13							3	9				1	3
86. Convulsions (under 5 years of age)	1								1					
87. Other diseases of the nervous system	24	1		5		1		1	12		3		1	1
88. Diseases of the organs of vision														
89. Diseases of the ear and mastoid process	6	1						1	3		1			
90. Pericarditis (except acute rheumatic)	6							1	4				1	
91. Acute endocarditis (except rheumatic)	9		1	1		1			4					
92. Chronic affections of the valves and endocardium	166	9	11	14	11	8	2	5	73	8	8	2	4	20
93. Diseases of the myocardium	2135	64	81	237	143	45	24	107	1097	33	122	38	60	148
94. Diseases of the coronary arteries and angina pectoris	956	19	58	92	67	23	15	61	464	30	29	21	26	148
95. Other diseases of the heart	178	3	7	14	13	3	3	9	103	1	10	2	6	20
96. Aneurysm (except of heart and aorta)	30			2	3			1	17	1	2			1
97. Arteriosclerosis (except coronary or renal sclerosis)	159	6	6	15	8	4	2	9	84	7	7	2		

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.
2	32 64	6 4	...	...	6 4	12 37	2 7	2 2	...	...	...	3 8	...	3 5	6 21	2 5	1 2	1 13	4 21	...	...	1 7	1 4	...	1...	...
...	22 12 5	3 2	...	...	...	13 7 3	1 1 1	...	1 1 ...	1 1 1	...	1 ...	1 ...	2 1	10 3 1	4 1 1	...	5 2	8 1	...	...	2 ...	3...	...	...	...
...	4	233 3	26	1	9	16	112 1	13 1	14 ...	2	21 ...	1 16	1 1	...	79 18	5	40	68 1	2 2	4 ...	10 1	9 ...	1 ...	3 ...	3 ...	10 ...
...	1	9 1	...	...	1	4 1	1 ...	...	...	3	...	...	...	2 2	5 2	...	4 1	3 2	...	...	2 ...	...	...	1...	...	...
...	1	4	...	...	...	3	1	...	...	...	...	...	...	1 ...	1 ...	...	1	1 1	1 1	...	...	...	...	...	...	...
...	...	3 11 36 3	3 1	...	...	6 21 ...	1 1 1	1 2	...	1 6	1 1	3 1	...	...	8 8 2	2 1	...	5 2 1	13 4	1	...	1 4	1 2	1 1	1 2	2
...	20	1	...	...	1	17	...	1	...	2	...	...	2	3	...	...	3	1 1 1	1 1 1	1	1	1 1	...	...	...	...
...	...	3 4	...	...	1 1	2 3	...	...	...	...	...	...	...	...	1 2	...	1 2	1 1	1 1	1	...	...	...	...	...	1
14	18 574	3 75	...	6	14	45	287	15	42	6	51	10	23	27	192	27	6	127	187	12	1	32	31	4	13	23
...	11 10	1 1	...	1	...	5 4	2 ...	2 1	...	...	1 ...	1 1	1	...	3 ...	...	...	2 2	2 2	...	...	1 ...	...	1...	...	...
...	21	...	1	...	2	11	1	...	...	3	...	3	3	...	7	...	6	5	...	2	...	...	...	1	...	...
...	4 5 2	1	...	1	...	3 2 1	...	...	...	1 1	...	1	...	...	1	...	...	2 2 1	2 1	...	...	1 ...	...	1...	...	...
2	128	13	...	4	6	42	15	10	1	23	5	9	9	37	7	3	24	47	9	2	4	7	2	5	...	5
20	1886	119	17	45	230	931	97	96	17	185	55	90	110	416	67	27	247	357	8	20	53	65	14	26	...	44
27	605	97	3	8	32	284	40	35	7	38	21	38	51	324	44	12	202	352	14	12	74	56	15	12	16	39
2	126	9	1	2	9	68	10	5	2	12	4	4	6	32	9	1	19	50	2	2	5	11	1	3	...	8
...	13	1	1	...	2	8	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...
4	83	9	...	2	7	35	8	3	...	11	3	5	17	64	9	4	41	18	...	...	3	2	2	...	...	4
...	1 14 11	...	...	...	...	1 9 7	...	1	...	2 1	...	...	...	...	...	...	...	1 5 4	...	1	...	...	1 1	1 1	1 1	1
1	8	1	...	...	...	5	1	...	...	1	...	...	3	1	...	...	1	1	...	...	...	...	...	...	...	...

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Pasenic County	Clifton
54. Cancer of the brain and other parts of the central nervous system	4					2				1	14	1
55. Cancer of other and unspecified organs	30		2	2	3	16	2		8	12	37	4
56. Nonmalignant tumors (including dermoid cysts)	5	1				3		1	2	1	7	2
57. Tumors of unspecified nature	2					1					4	1
58. Acute rheumatic fever						1		1			2	1
59. Chronic rheumatism and other rheumatic diseases										1	4	1
60. Gout												
61. Diabetes mellitus	77	8	13	4	6	35	2	2	5	11	130	16
62. Diseases of the pituitary gland												
63. Diseases of the thyroid and parathyroid glands	2					2			1	1	6	1
64. Diseases of the thymus gland	4		1			4	4			2	4	
65. Diseases of the adrenal glands (not specified as tuberculous)												
66. Other general diseases											1	
67. Scurvy											1	
68. Beriberi												
69. Pellagra												
70. Rickets	1			1								
71. Avitaminoses												
72. Hemorrhagic conditions										1		
73. Anemias (except splenic anemia)	5	2								1	6	2
74. Leukemias and aleukemias	15	4	1		2	6			2	2	12	1
75. Diseases of the spleen	1					2		1			1	
76. Other diseases of the blood and blood-forming organs												
77. Alcoholism	2	1	1								4	
78. Lead poisoning	1					1	1					
79. Chronic poisoning by other mineral or organic substances	1		1			1						
80. Encephalitis (nonepidemic)	2		2			1					6	2
81. Meningitis (not due to meningococcus)	1			1							2	
82. Diseases of the spinal cord (except locomotor ataxia and disseminated sclerosis) ..	4				1	4	1	1			5	1
83. Intracranial lesions of vascular origin	199	26	22	22	16	112	7	6	13	54	303	36
84. Mental diseases and deficiency (except general paralysis of the insane)	2					3	1				4	1
85. Epilepsy	2					1					3	
86. Convulsions (under 5 years of age)	1					1						
87. Other diseases of the nervous system	7	1	2	2		3				2	13	2
88. Diseases of the organs of vision											1	
89. Diseases of the ear and mastoid process	1										1	
90. Pericarditis (except acute rheumatic)						1					1	
91. Acute endocarditis (except rheumatic)						2						
92. Chronic affections of the valves and endocardium										1		
93. Diseases of the myocardium	50	8	2	10	3	36	3	3	3	7	55	7
94. Diseases of the coronary arteries and angina pectoris	470	48	56	46	38	342	39	14	53	101	611	71
95. Other diseases of the heart	292	28	19	24	13	173	12	17	34	105	439	59
96. Aneurysm (except of heart and aorta)	111	7	12	6	8	28	1		3	5	69	7
97. Arteriosclerosis (except coronary or renal sclerosis)	3				1	5			2	1	7	
98. Gangrene	47	5	5	1	3	60	5	5	10	21	102	17
99. Other diseases of the arteries	1										1	1
100. Diseases of the veins	4			2	1	1		1		4	5	
101. Diseases of the lymphatic system	4	1		1		1					6	1
102. High blood pressure (idiopathic)	3					1						
103. Other diseases of the circulatory system											4	
104. Diseases of the nasal fossae and accessory sinuses												1

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg
1	4	5	1	1	3			1	10	1		4	1		1	1			1	1		3	1
...	9	20	6	1	11			2	45	...		22	6	1	6	...			...	2	4	8	...
...	2	3	...	...	2	...	...	2	6	...	1	1	1	1	1	...	1	...	...	1	...	...	...
...	1	2	1	1	2	...	...	2	3	...	3	2	...	1	1	1	...	...	...	1	...	...	...
...
...	...	...	1	...	2	...	1	1	3	1	1	...	...	...	...	...	...	...	...	...	...	...	...
5	18	70	18	5	33	5	6	6	12	114	2	45	2	10	16	5	9	3	1	9	3	20	11
...	1	3	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...
...	3	1	1	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	2	...
...	1	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	4	...	...	...	...	1	...	...	...	...	...	...	...	...	...
...	5	3	1	...	4	...	...	1	2	14	...	1	...	1	2	...	1	...	...	1	...	1	1
...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...
...	1	3	...	...	3	1	...	...	1	3	...	2	...	...	...	...	...	...	...	1	...	1	...
...
...	...	2	...	...	1	...	1	...	...	2	...	...	...	...	1	...	...	...	1	...	...	1	...
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	1	1	...	1	...	...	1	8	2	1	1	1	...	...	...	2	...	1	...	1	...	...
10	67	145	50	8	96	5	16	13	36	316	18	117	12	19	43	15	10	5	12	12	24	75	24
...	1	1	1	...	...	...	...	...	1	2	...	2	...	...	...	...	...	...	...	...	...	...	...
...	1	...	2	...	2	...	...	1	4	...	...	2	1	...	...	...	...	...	...	1	...	2	1
2	1	5	1	...	2	...	...	1	12	...	...	5	...	2	1	...	...	1	...	1	...	4	...
...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...
...
3	11	19	15	2	11	2	...	1	8	46	4	9	...	3	10	1	1	...	4	7	4	11	4
17	103	332	89	23	151	8	31	20	71	555	23	183	31	20	68	45	22	16	32	48	29	126	30
16	71	239	60	13	101	8	21	17	41	480	26	174	17	25	43	25	15	12	29	30	33	81	32
...	1	15	34	10	2	21	3	4	4	82	5	39	2	1	8	2	3	2	4	5	1	21	10
...	1	3	1	...	2	...	...	1	1	13	...	2	1	...	4	...	...	3	1	2	...	...	...
4	15	59	14	7	16	2	4	1	14	65	4	24	3	2	9	2	2	1	1	7	6	33	13
...	2	3	1	...	3	1	18	...	8	1	1	4	...	1	...	1	2	1
...	1	3	1	1	...	2	1	1	1
1	...	2	1	8	1	1	1	2	1	...	1	1	...
1	1	1

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Hackensack	Lodi	Lyndhurst Twp.	North Arlington	Ridgedale Park	Ridgewood	Rutherford	Teaneck Twp.	Wallington	Burlington County	Burlington	Camden County	Audubon	Camden	Collingswood	Gloucester City	Haddonfield	Pennsauken Twp.	Cape May County	Cumberland County	Bridgeton	Millville	Vineland
2							2		3	1	1	6	3			1	1		3			
6	3	1		1	1	1		4	17	3	30	1	18	2	1		8	12	3	3	1	2
4	2	1			2	1	3	1	10	1	81	1	50	1	4		6	6	1			
		1		1				1	2		4		3				1	2	2	1	1	
				1							3		2					2	2	1	1	
1					1				3		7		4				1	1	2		1	
											1		2		1			2	2		1	
									1		6		4		1				5	1		
									1		2		1		1				1			
1	1	1			2	2	1		8	1	22	2	12			1	2	6	8	4	1	1
	2				2				3	1	10		6					1	1	1		
		2	1					1	1		6		2	1	1		1	1	1		1	
3	3	2		3	1	1	1	1	2		20	2	5				2	10	1	3	1	2
											1											
2	1	1		2	4		2	1	9	2	30		18	3			2	7	11	4	1	
1						1			2		4		3					2	2		1	
2						1	2		1		13	1	5	1	3		1	2		1		
1	1				1			1			3		2				1		2			
									1		5		3	1		1		2	1			1
									1		2		1	1			1					
18	10	6	3	6	9	7	12	4	78	10	6	9	105	15	11	12	12	31	63	19	12	4
		1							4		16		4	1	1		5	1				
2			1		1				2		12	1	6		1	1		1	3	1	1	
						1			2		2											
		1							1		2						1		1			
		1									1		1									
	1	2				2		1	6	1	11		7					2	5		1	
1				1																		
											3		2	1				1		1		
	1																					
			1						1		4			1			2		1		1	
			1								4		2									
1											2		1		1							
																			1	1		

	Essex	County	Belleville	Bloomfield	East Orange	Irrington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester	County
105. Diseases of the larynx	21	1	2	1	1	1	1	1	1	10	2	1	1	1	1	1
106. Bronchitis	134	5	4	13	7	3	1	7	63	3	13	2	5	10	10	10
107. Bronchopneumonia (including capillary bronchitis)	103	6	7	5	3	1	7	61	1	4	5	1	1	2	2	2
108. Lobar pneumonia	7	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1
109. Pneumonia (unspecified)	7	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1
110. Pleurisy (not specified as tuberculous)	13	3	1	1	1	1	1	2	5	1	1	1	1	1	1	1
111. Hemorrhagic infarction, thrombosis, edema and chronic congestion of the lungs	16	1	2	1	1	1	1	1	8	1	1	1	1	1	1	1
112. Asthma	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
113. Pulmonary emphysema	14	1	2	2	1	1	1	8	1	1	1	1	1	1	1	1
114. Other diseases of the respiratory system (except tuberculosis)	14	1	2	2	1	1	1	8	1	1	1	1	1	1	1	1
115. Diseases of the buccal cavity, pharynx, tonsils and adnexa	8	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1
116. Diseases of the esophagus	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
117. Ulcer of stomach or duodenum	85	2	4	2	5	2	1	7	47	2	5	2	2	4	4	4
118. Other diseases of the stomach (except cancer)	4	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
119. Diarrhea, enteritis and ulceration of the intestines (under 2 years of age)	16	1	1	1	1	1	1	10	2	1	1	1	1	2	2	2
120. Diarrhea, enteritis and ulceration of the intestines (2 years of age and over)	9	1	1	1	1	1	1	5	3	1	1	1	1	1	1	1
121. Appendicitis	36	1	2	4	1	1	1	3	20	2	1	1	1	1	1	1
122. Hernia and intestinal obstruction	71	2	2	6	2	1	3	41	2	3	1	1	1	1	1	1
123. Other diseases of the intestines	13	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1
124. Cirrhosis of the liver	126	3	3	9	9	2	1	3	74	4	8	4	4	9	9	9
125. Other diseases of the liver	9	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1
126. Biliary calculi	32	1	2	6	1	1	1	1	19	1	1	1	1	1	1	1
127. Other diseases of the gallbladder and biliary ducts	17	2	3	2	1	1	1	7	1	1	1	1	1	1	1	1
128. Diseases of the pancreas (except diabetes mellitus)	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
129. Peritonitis (cause not stated)	5	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
130. Acute nephritis	10	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1
131. Chronic nephritis	537	22	27	49	42	17	6	37	269	9	19	8	10	80	80	80
132. Nephritis unspecified (10 years of age and over)	14	1	2	2	1	1	1	10	1	1	1	1	1	1	1	1
133. Other diseases of the kidneys and ureters	26	1	1	1	1	1	1	15	1	1	1	1	1	1	1	1
134. Calculi of the urinary passages	9	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1
135. Diseases of the urinary bladder	12	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1
136. Diseases of the urethra (except calculus)	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
137. Diseases of the prostate	40	1	4	5	3	1	1	2	17	2	1	2	2	5	5	5
138. Diseases of other male genital organs (not specified as venereal)	7	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
139. Diseases of the female genital organs	2	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
140. Abortion with mention of infection	7	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
141. Abortion without mention of infection	2	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
142. Ectopic gestation	2	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
143. Hemorrhage of pregnancy (death before delivery)	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
144. Toxemias of pregnancy (death before delivery)	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
145. Other diseases and accidents of pregnancy (death before delivery)	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
146. Hemorrhage of childbirth and the puerperium	3	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
147. Infection during childbirth and the puerperium	3	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
148. Puerperal toxemias (excluding death before delivery)	3	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
149. Other accidents and specified conditions of childbirth	3	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.
1	3					1		1		1		2		5			4	2								
2	128	13	1	3	12	72	1	11		7	3	5	5	32	7	1	19	49	5	1	6	4	2		13	
1	89	5	1	1	8	57	6	1	1	6	1	1	8	37	7	1	23	29	2		7	5		2	5	
	6					2		1	1	2			1	5	1		4	3			2			1		
	3					1		1				1	1	1			1									
1	13	1			2	5	1	1		3		1	4	3	2		1	2	1					1	1	
	13	2	1			6	1	1		2			1	4			4	5		1				1	1	
																		1								
	12			2	1	7	2						1	4			4	7			1	1	1		1	
	4					3	1							2			2	1								
1	1											1		1			1	4								
1	55	5	1	2	7	24	3	6		7		1	7	15	3		11	16		1	2	5		1	3	
	1		1										1	2			1									
	10	1				7	1				1		2	17	4		9	2								
	10	2			1	6		2		1		1	1	1			1	3				2				
2	26	1		1	6	7	2	2		2		2	2	15	3	1	10	7								
	38	5	1	1	3	19	2	2		2		2	2	15	2	1	10	14	2	1	1	2		1	2	
	15					11				1	1	1	3	3	1		1									
2	113	8	1	2	8	61	4	2	1	12	4	2	5	36	5	3	19	33		1	4	10	1		6	
	27	1				3				1	1	1		8	1		4	5		1	2			1		
	7	3		1	3	13	1	2		1		3	3	8			4	4	1		1			1		
	5				2			1		2			1	1	1			2			1					
	10	1		1		5		1	1			1		2			1	1								
	4	1			1	2												2								
14	268	46	4	7	22	99	33	21	4	19	2	11	27	99	11	6	59	79	7	2	17	13	2	1	7	
	11	2		1	1	6	1						1	2			1									
1	15	2				10		2				1		8	2		5	2							1	
	4	1				1	1			1				1				2				1				
	2	1						1						1	1			1								
1	19	1				12		3	1	1		1	1	7			6	9	1		2	2		1	2	
	5			1		1		1				2		2		1		1	3	2					1	
	2				1	1								1			1									
	1			1														1							1	
	1					1													1						1	
	2					1				1				1			1	2						1		
													1					1			1					
	1					1								2	1		1									

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	N Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County	Clifton
105. Diseases of the larynx	4	1				3				2	13	2
106. Bronchitis	20	4	6	4	2	22	3	1	3	8	69	10
107. Brouchopneumonia (including capillary bronchitis)	5	1	2	1		27	5	1	1	10	41	3
108. Lobar pneumonia	1	1								2	7	2
109. Pneumonia (unspecified)	10				1	2				1	13	3
110. Pleurisy (not specified as tuberculous)	4	1	1			2					3	1
111. Hemorrhagic infarction, thrombosis, edema and chronic congestion of the lungs	2					1						
112. Asthma	1					3				1	2	
113. Pulmonary emphysema	2					1						
114. Other diseases of the respiratory system (except tuberculosis)	1											
115. Diseases of the buccal cavity, pharynx, tonsils and adnexa	2	1				1	1				2	1
116. Diseases of the esophagus	15	1	3	3		11	2	2		4	23	3
117. Ulcer of stomach or duodenum	1		1								2	1
118. Other diseases of the stomach (except cancer)	2					5	1			2	2	
119. Diarrhea, enteritis and ulceration of the intestines (under 2 years of age)	2					3			1	2	2	
120. Diarrhea, enteritis and ulceration of the intestines (2 years of age and over)	10		3		2	5	2	1	1	2	7	1
121. Appendicitis	19	2	2	1	1	16	2	1	2	3	22	2
122. Hernia and intestinal obstruction	1				1	1			1	1	4	2
123. Other diseases of the intestines	35	5		7	2	20	2	1	3	3	35	4
124. Cirrhosis of the liver	8	1	1		1	2	1	1			1	
125. Other diseases of the liver	5	1	1			5	1		1	1	11	1
126. Biliary calculi	2									1	3	
127. Other diseases of the gallbladder and biliary ducts	4	1		1	1	2	1				3	1
128. Diseases of the pancreas (except diabetes mellitus)	1					1					1	
129. Peritonitis (cause not stated)	1					2					4	
130. Acute nephritis	138	13	11	13	15	67	5	5	6	39	128	12
131. Chronic nephritis	2				1	2					4	
132. Nephritis unspecified (10 years of age and over)	4				1	4	1	1		1	3	1
133. Other diseases of the kidneys and ureters	2					1			1		2	
134. Calculi of the urinary passages	1		1								1	
135. Diseases of the urinary bladder	6	2				7			1		13	2
136. Diseases of the urethra (except calculus)												
137. Diseases of the prostate												
138. Diseases of other male genital organs (not specified as venereal)												
139. Diseases of the female genital organs	1										1	
140. Abortion with mention of infection												
141. Abortion without mention of infection												
142. Ectopic gestation											1	
143. Hemorrhage of pregnancy (death before delivery)	1											
144. Toxemias of pregnancy (death before delivery)												
145. Other diseases and accidents of pregnancy (death before delivery)												
146. Hemorrhage of childbirth and the puerperium										1		
147. Infection during childbirth and the puerperium	1									1		
148. Puerperal toxemias (excluding death before delivery)	4	1	2			1						
149. Other accidents and specified conditions of childbirth						1					5	1

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg
...	2	5	1	1	4	...	...	1	1	1	1	...	...	...	...	1	1	...	...	...	1	1	...
2	13	34	5	...	10	2	1	3	6	70	2	32	3	4	9	2	3	...	4	5	3	15	8
1	7	24	4	1	8	1	1	1	4	42	1	24	...	1	5	1	3	...	2	...	...	...	...
2	2	3	1	1	4	1	1	2	1	6	...	4	...	...	...	...	...	...	2	1	...	2	1
...	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...
...	5	4	1	1	2	1	1	...	2	5	...	2	...	...	1	1	1	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	6	...	3	1	...	1	...	1	...	...	...	...	3	2
1	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
2	6	10	1	...	5	1	2	...	...	36	1	10	...	4	2	2	1	...	3	2	3	2	...
...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	1	...	...	1	...
1	1	...	3	...	6	2	...	...	1	6	1	...	...	...	2	...	...	...	1	...	...	2	2
...	2	...	...	...	...	...	...	...	1	7	...	1	...	...	...	1	1	1	1	1	...	...	...
2	4	12	3	...	...	1	1	1	1	10	1	3	...	...	...	1	2	...	1	...	1	1	1
...	...	...	...	...	...	...	...	...	...	28	1	6	...	2	7	2	2	...	1	3	1	2	1
...	8	20	4	1	8	1	1	2	2	55	2	23	3	1	4	4	4	...	3	2	5	2	...
...	1	...	...	...	1	...	...	...	...	4	...	1	1	...	...	1	...	...	...	...	...	...	...
...	3	5	1	...	5	1	...	...	1	8	2	2	1	...	2	...	1	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	1	...	...	...	...	...	1	1	...
...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	1	1	...	1	...	1	...	1	1
9	25	66	26	7	35	10	5	3	19	151	9	50	7	5	25	9	6	1	10	7	8	26	12
...	...	4	2	1	1	1	...	...	2	6	2	...	1	...	1	...	1	...	...	1	...	2	1
...	1	...	2	...	...	...	...	...	1	6	...	1	...	1	1	...	...	...	...	1	2	1	...
...	1	1	...	...	...	...	...	...	...	3	...	1	...	...	1	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...
...	3	7	5	2	9	...	...	1	4	15	...	8	1	...	5	...	1	...	2	2	6	3	...
...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...
...	...	1	1	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...
...	...	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	1	...	...
...	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...
...	2	2	...	...	...	...	...	...	...	4	...	2	...	...	...	...	...	...	...	1	1	1	...

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	State Total	Atlantic County	Atlantic City	Hammonse	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
150. Other and unspecified conditions of child-birth and the puerperium	5					1	1					
151. Carbuncle and furuncle	2											
152. Phlegmon and acute abscess	6											
153. Other diseases of the skin and cellular tissue	32	1	1			3						
154. Osteomyelitis and periostitis	5											
155. Other diseases of the bones (except tuberculosis)	13	1	1									
156. Diseases of the joints and other organs of movement	11	1				2						
157. Congenital malformations (stillbirths not included)	577	16	9	3	2	59	3	5	1		2	5
158. Congenital debility (cause not stated)	26					1						
159. Premature birth (cause not stated)	1176	42	18	5	3	89	4	6	4	4	2	2
160. Injury at birth	269	12	4	1	1	19		3		1		
161. Other diseases peculiar to the first year of life	320	10	2	1	1	19	2	2	1	1		
162. Senility	147	6	5			1	12					1
163. Suicide by poisoning	176	5	3		1	19	1					1
164. Suicide by other means	350	10	5		2	36			2		1	2
165. Infanticide (omicide of infants under 1 year of age)	7											
166. Homicide by firearms	50	3	2			3						
167. Homicide by cutting or piercing instruments	32	2				1						
168. Homicide by other means	51	2	1			6			1			
169. Railway accidents (except collisions with motor vehicles)	61					7			1			1
170. Motor vehicle accidents	652	22	5		2	54			2		2	3
171. Street car and other road transport accidents	12	1	1			1						
172. Water transport accidents	23					2						
173. Air transport accidents	29					1						
174. Accidents in mines and quarries	1					1						
175. Agricultural and forestry accidents	19											
176. Other accidents involving machinery	15					2						
177. Food poisoning	4											
178. Accidental absorption of poisonous gas	111	6	4		1	10		1				
179. Acute accidental poisoning by solids or liquids	32					5						1
180. Conflagration	97	4	2			4						
181. Accidental burns (except conflagration)	80	4	3		1	6	1		1			
182. Accidental mechanical suffocation	49	1	1			3						
183. Accidental drowning	147	2	2			10			1		1	
184. Accidental injury by firearms	18	1				1						
185. Accidental injury by cutting or piercing instruments	4					1						
186-1. Accidental injury by fall	832	29	13		6	60	1	4	5	1	1	2
186-2. Accidental injury by crushing	3					1						
187. Cataclysm												
188. Injury by animals	1											
189. Hunger or thirst	1											
190. Excessive cold	10					1						
191. Excessive heat	7					1		1				
192. Lightning	3					1						
193. Accidents due to electric currents (except lightning)	21	1			1	2						
194. Poisoning by venomous animals												
195. Other accidents	135	3	3			16			2			
196. Deaths of military personnel during operations of war												
197. Deaths of civilians due to operations of war												
198. Legal executions												
199. Sudden death	2											
200. Ill-defined and unknown causes	63					8	1					
Totals	48276	1808	1000	74	190	4217	114	160	212	79	115	211

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

[illegible]

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Essex County	Bellefonte	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
150. Other and unspecified conditions of child-birth and the puerperium	3	1						1	1					
151. Carbuncle and furuncle	1							1	1					
152. Phlegmon and acute abscess	14				1	1			12					
153. Other diseases of the skin and cellular tissue	1		1											
154. Osteomyelitis and periostitis	2	1								1				
155. Other diseases of the bones (except tuberculosis)	2								1			1		
156. Diseases of the joints and other organs of movement	103	2	13	6	6	1		4	55	7	5		1	14
157. Congenital malformations (stillbirths not included)	5							5	5					1
158. Congenital debility (cause not stated)	273	9	7	19	13	3	3	15	164	6	13	3	7	24
159. Premature birth (cause not stated)	44		1	4	1		1	1	25	1	3		4	7
160. Injury at birth	57		3	1	3	2		3	38	3	1	1	1	9
161. Other diseases peculiar to the first year of life	23		1	1	1	1		3	14				1	2
162. Senility	53	2	5	2	1	2		5	26		2	2	2	4
163. Suicide by poisoning	67	3	2	4	1	2		3	38	4	4	3	2	7
164. Suicide by other means														
165. Infanticide (homicide of infants under 1 year of age)	8													2
166. Homicide by firearms	10					1			7					
167. Homicide by cutting or piercing instruments	8					1			8		1			
168. Homicide by other means	9								6		3			4
169. Railway accidents (except collisions with motor vehicles)	9		1	1				1	6					1
170. Motor vehicle accidents	97	6	5	10	2	3	2	4	46	6	4	1	3	27
171. Street car and other road transport accidents	5		1	1					1				2	
172. Water transport accidents	3			1				2						
173. Air transport accidents	2										2			
174. Accidents in mines and quarries	1													1
175. Agricultural and forestry accidents														
176. Other accidents involving machinery														
177. Food poisoning														
178. Accidental absorption of poisonous gas	19					2			17					1
179. Acute accidental poisoning by solids or liquids	7			1					3				1	1
180. Conflagration	24	1				1		1	19		1			3
181. Accidental burns (except conflagration)	15	1	1	2				2	7	1				1
182. Accidental mechanical suffocation	17			2	1			2	11					2
183. Accidental drowning	22	1	2	2	3				9	2			2	2
184. Accidental injury by firearms	1								1					2
185. Accidental injury by cutting or piercing instruments	1								1					
186-1. Accidental injury by fall	186	5	10	19	9	2	3	10	99	4	7	3	4	11
186-2. Accidental injury by crushing														
187. Cataclysm														
188. Injury by animals														
189. Hunger or thirst														
190. Excessive cold	1								1					
191. Excessive heat	1								1					
192. Lightning	1							1						
193. Accidents due to electric currents (except lightning)	2			1					1					
194. Poisoning by venomous animals														
195. Other accidents	33	1	1	8	5	1	1	1	12				1	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														
200. Ill-defined and unknown causes	6			1				1	4					2
Totals	9715	276	450	881	590	237	114	527	5156	223	433	163	252	956

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sarreville	South Amboy	South River	Woodbridge Twp.
														1			1									
		5				3		1		1					1			2				2				
		2		1		1								1	2		1	1				1				
		2				1				1																
	73	11		2	5	35	5	2	1	8	1	3	7	41	9	1	22	24	1	1	4	3		2		5
	151	15	1	5	4	92	8	4	1	10	5	6	11	49	9	2	33	77	5	5	14	15	1	1	1	6
3	29	1			6	15	1	2		1	1	2	1	13	2		9	19	3		4	4	1	1	1	1
1	55	3		2	8	25	4	3		6	2	2	2	17	3	1	11	20			3	4		1		3
1	5			1		1	1	1					5	4	1	1	1	7			1	2	1			2
1	50	2	2		5	23	2	4	1	8		3	7	15	4	1	6	20	1	1	3	4	1	2		1
	1					1								2			2	1			1					
	4	6	1			4		1		2			1	5		1	3	1								
	9					3	1	1						4			2	4	1			1				
	4	60	1	2	1	7				1			2	4	12	1	4	6	1			2				1
	1	1				31	3	4		2	1	1	6	45			18	45	1		6	4	5	2	1	5
	5																									
	7			1		3				1					1		1	2				1				1
						1		4		1				5	3		2	3								
						2			1				3													
		3															2									
		8	1			4	2			1				2		1	4	9			1	3		2		1
		5		1		4								2			2			1						1
	15	1	1			4				1				5	1		1	6						1		
	6	1		1	4	7			1	1				4	1		3	5			1	2				
	24	2		1	2	3		1	1				1	7	3	1	2	5								
	1					14	1	1	1	2			1	1			10	2	1		4			2	1	1
	140	20	3	3	14	76	5	2		10	4	2	7	39	8		28	38	3	2	8	7	1	2	2	4
	1	1																								
		2				2								1				1								
		2				2								1	2		1									
1	23			3	5	6	3	2		2	1	1	2	6	1		4	7				1				1
		1					1		1				1	2				2								
	3	2																								
135	7134	722	68	160	633	3515	396	392	67	639	169	357	478	2345	372	114	1439	2255	102	86	394	405	70	109	84	269

DEPARTMENT OF HEALTH

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County	Clifton
150. Other and unspecified conditions of child birth and the puerperium												
151. Carbuncle and furuncle	1		1									
152. Phlegmon and acute abscess										1		
153. Other diseases of the skin and cellular tissue											3	
154. Osteomyelitis and periostitis	1											
155. Other diseases of the bones (except tuberculosis)	1				1						1	
156. Diseases of the joints and other organs of movement											1	1
157. Congenital malformations (stillbirths not included)	23	2	1	1		21	3		3	6	31	7
158. Congenital debility (cause not stated)	1				1							
159. Premature birth (cause not stated)	40	6	3	3	1	41	10	1	5	19	86	15
160. Injury at birth	12	1	1	1	1	7	3	1		5	15	2
161. Other diseases peculiar to the first year of life	16	2		2	1	13			2	5	20	5
162. Senility	26	2	4	2	1	5		1	1		10	2
163. Suicide by poisoning	6	1	1	1		4	2		1	2	18	
164. Suicide by other means	17			2	1	12		1	2	2	23	9
165. Infanticide (homicide of infants under 1 year of age)											1	
166. Homicide by firearms	5	1				2				1	4	
167. Homicide by cutting or piercing instruments	1	1				1					2	
168. Homicide by other means	3			1	1	2		1		1	2	
169. Railway accidents (except collisions with motor vehicles)	4					2				1	5	
170. Motor vehicle accidents	29		1	3	1	20	3	1		16	44	8
171. Street car and other road transport accidents						2				1		
172. Water transport accidents	1									1	1	
173. Air transport accidents	2										2	
174. Accidents in mines and quarries											2	
175. Agricultural and forestry accidents	4					2						
176. Other accidents involving machinery	1										1	
177. Food poisoning	2		1									
178. Accidental absorption of poisonous gas	13	1	4			8		1	1	3	8	
179. Acute accidental poisoning by solids or liquids	1	1				2			1		1	
180. Conflagration	1					2				2	5	
181. Accidental burns (except conflagration)	3	2	1			2				2	2	1
182. Accidental mechanical suffocation										1		
183. Accidental drowning	5	1				2				2	17	
184. Accidental injury by firearms						1						
185. Accidental injury by cutting or piercing instruments												
186-1. Accidental injury by fall	31	5	4		2	23	3		3	13	67	5
186-2. Accidental injury by crushing											1	1
187. Cataclysm												
188. Injury by animals											1	
189. Hunger or thirst											1	
190. Excessive cold	1											
191. Excessive heat											1	
192. Lightning												
193. Accidents due to electric currents (except lightning)	4			1								
194. Poisoning by venomous animals												
195. Other accidents	9	1	2		1	2	1			1	9	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											1	
200. Ill-defined and unknown causes	6	2	1								5	
Totals	2390	260	233	208	171	1502	159	82	213	613	3355	445

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COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS
PLACES WHICH FOLLOW): 1947—Continued

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg
									1	1		1											
	1	2								1			1										
		1			1																	1	
										2		2											
1	6	12	10	3	10	2	1		7	50	4	13		3	6	4	3	2	1	11	1	5	2
5	17	35	23	5	22	2	3	4	6	81	2	25	4	4	12	11	6		2	4		11	5
4	6	1			9		2	1		28		13	2	4	1	4			1	1	2	1	
	6	7	9	2	5	2			2	29	3	9	1	3	1	1	1		3	2	4	2	2
1	2	10	2		8		1	1	3	6		2	1	1	1	1							
1	2	5	5	6	8	2			2	22		7	2	2	1		1		1	5		3	3
2									2	20	1	6	4	2	2		2	1			1	7	2
					1	1																	
1	1	2			2			1		2		1										1	
		1							1	3		2								1			
	2				1					3		1			1						1		
	2	3			2				2	2	1	1	1					2	1			1	1
1	6	19	13	2	14	2	2	1	4	50	4	10	1	3	7	4	3	2	1	7	2	12	1
1																							
		1							1	1						1							
			1						2													1	
					1					1		1										1	
	1	5	1		2	1			2	9		5	1		1					1		1	
		1							2	4		1		1		1							
	1	4	4	1	4			1	2	2				1					1			1	
		1	1		1			1	1	2					2							1	
			2		3	1	1			2									1				
	8	4	5	2	4					12		5							2	1		1	1
									3	2					1								
2	11	43	11	3	18	2	3	4	7	56	4	20	1	2	10	4	1	1	4		4	11	2
		1																					
		1			1	1				3		2	1										
	1	5	1	1	3					8		3	1	1	1				1		1		
		1								16													
	1	3	1	1								7	2		3					1	2		
127	629	1688	525	118	851	85	136	121	362	3416	157	1210	154	177	432	194	138	67	172	240	200	637	217

TABLE 22—TABULATION OF DEATHS IN ATLANTIC COUNTY FOR 1947, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														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	90 and Over	
	ALL CAUSES	1808	801	660	202	145	111	128	4	7	8	28	49	61	102	309	415	434	213	50	....
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1				1	1	1													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	54	22	6	15	11					1	9	10	6	10	10	7	1			
7	All other forms of tuberculosis	6	2	1	2	1	2	3					1				2				
8	Malaria																				
9	Syphilis	11	3	1	6	1							1	1	3	4	2				
10	Influenza	5			1	4									1	2		1	1		
11	Smallpox																				
12	Measles																				
13	Typhus fever	1		1													1				
14	Other infectious or parasitic diseases	7	4	2		1	1	1	1			1	1	1			2				
15	Cancer and other malignant tumors	232	99	98	16	19						1	4	4	13	53	89	53	15		
16	Nonmalignant tumors or tumors of unspecified nature	9	2	5		2		1				1		2	1	1	1	1		1	
17	Chronic rheumatism and gout	2	1	1												1				1	
18	Diabetes mellitus	52	20	25	1	6							1	1	1	13	12	20	4		
19	Chronic or acute alcoholism	2	1	1									1			1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	18	7	7	1	3		1					2	1	3	1	5	2	3		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	8	3	2	1	2	1	2		1			1		1	1	1	1			
22	Intracranial lesions of vascular origin	155	58	72	14	11	1	1		1	1		4	6	6	26	45	39	23	3	

23	Other diseases of the nervous system and sense organs	18	12	6	.....	.....	1	2	1	1	1	1	1	.....	1	2	4	3	1	.....
24	Diseases of the heart	601	293	213	58	37	1	1	.....	2	3	6	18	31	114	137	179	87	23	.....
25	Other diseases of the circulatory system	30	15	13	1	1	.....	.....	.....	.....	.....	.....	.....	.....	5	5	8	10	2	.....
26	Bronchitis	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	75	22	18	24	11	24	27	.....	1	.....	2	5	7	6	9	14	3	1	.....
28	Other diseases of the respiratory system	9	4	5	.....	.....	1	1	.....	.....	1	.....	1	.....	2	4	.....	.....	.....	.....
29	Diarrhea and enteritis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis	7	5	1	.....	1	.....	.....	.....	.....	1	.....	.....	1	2	1	1	1	.....	.....
31	Diseases of the liver and biliary passages	41	20	15	3	3	.....	.....	.....	1	1	3	2	3	12	10	7	2	.....	.....
32	Other diseases of the digestive system	38	20	10	7	1	.....	1	.....	2	1	5	1	12	11	4	1	.....	.....	.....
33	Nephritis	223	87	86	28	22	.....	.....	.....	.....	3	2	9	24	48	76	47	14	.....	.....
34	Other diseases of the urinary and genital systems	15	9	4	2	.....	.....	.....	.....	.....	.....	.....	1	2	5	4	3	.....	.....	.....
35	Puerperal 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 organs of movement	3	2	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	80	39	29	8	4	77	79	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	6	1	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	2	.....
40	Suicide	15	10	5	.....	.....	.....	.....	.....	.....	1	2	.....	1	5	4	1	.....	1	.....
41	Homicide	7	4	1	2	.....	.....	.....	.....	.....	1	1	2	1	2	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	22	15	3	3	1	.....	2	1	.....	1	4	2	1	3	5	3	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	52	20	23	6	3	1	6	.....	2	1	1	.....	2	4	3	6	17	7	3
44	Causes of death ill-defined, unknown, or unspecified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 130,716.

Total Resident Deaths, 1,808.

Rate per 1,000 Population, 13.8.

TABULATION OF DEATHS IN ATLANTIC CITY FOR 1947, 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	1000	403	324	159	114	48	54	...	3	3	14	37	39	68	205	234	228	93	22	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	36	13	2	12	9						6	9	5	6	6	3	1			
7	All other forms of tuberculosis	5	1	1	2	1	2	3									2				
8	Malaria																				
9	Syphilis	7	2		4	1						1			2	4					
10	Influenza	3			3										1	1		1			
11	Smallpox																				
12	Measles																				
13	Typhus fever		1	1		1															
14	Other infectious or parasitic diseases	3	1											1							
15	Cancer and other malignant tumors	133	48	33	15	17							2	2	6	37	52	29	5		
16	Nonmalignant tumors or tumors of unspecified nature	5		3		2									2	1					1
17	Chronic rheumatism and gout	1																			
18	Diabetes mellitus	33	12	14	1	6							1	1	1	10	7	11	2		
19	Chronic or acute alcoholism	2	1	1									1			1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	10	3	4	1	2		1					1	1	1		3	1	2		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	5	2		1	2	1	1					1		1	1	1				
22	Intracranial lesions of vascular origin	87	30	35	12	10	1	1			1		4	2	5	14	26	22	11	1	

Rate per 1,000 Population, 14.9.

TABULATION OF DEATHS IN BERGEN COUNTY FOR 1947, 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	4217	2159	1944	56	58	225	256	25	8	16	85	136	138	201	718	953	1014	593	74	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2	1	1			1	2													
5	Diphtheria	1	1				1	1													
6	Tuberculosis of the respiratory system	82	51	19	3	9						15	13	5	9	20	15	1	3	1	
7	All other forms of tuberculosis	5	2	2	1							2		1		1	1				
8	Malaria																				
9	Syphilis	21	16	2	2	1							1	2	3	5	9	1			
10	Influenza	3	2	1				2											1		
11	Smallpox																				
12	Measles	1		1					1												
13	Typhus fever																				
14	Other infectious or parasitic diseases	14	6	8			2	3	2			3	4			2					
15	Cancer and other malignant tumors	735	352	370	5	8		5	1			7	27	35	37	175	203	171	71	3	
16	Nonmalignant tumors or tumors of unspecified nature	23	9	12	1	1	1	1				1	4	1	3	4	2	6	1		
17	Chronic rheumatism and gout	3	2	1																	
18	Diabetes mellitus	136	49	86		1				1		1	4	3	3	18	46	45	14	1	
19	Chronic or acute alcoholism	9	7	1	1							1	1	1	3	1	2				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	58	30	28			3	8	3			1	4	8	5	9	7	10	3		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	10	4	5		1	2	3			1		1		1	2	2				
22	Intracranial lesions of vascular origin	367	143	215	5	4						2	4	7	13	47	87	120	79	8	

23	Other diseases of the nervous system and sense organs	32	14	18	.....	.....	2	.....	1	2	3	5	2	2	2	4	8	.....	1	.....
24	Diseases of the heart	1520	833	660	16	11	.....	.....	3	6	22	34	64	282	387	433	262	27	.....	.....
25	Other diseases of the circulatory system	134	64	68	2	.....	.....	.....	.....	1	2	2	4	8	20	33	49	15	.....	.....
26	Bronchitis	12	8	4	.....	.....	3	3	1	.....	.....	.....	1	.....	3	3	1	.....	.....	.....
27	Pneumonia and bronchopneumonia	129	69	53	5	2	20	22	3	1	1	6	3	2	9	15	20	28	16	3
28	Other diseases of the respiratory system	17	10	6	1	.....	.....	.....	.....	.....	.....	.....	2	3	1	7	3	.....	1	.....
29	Diarrhea and enteritis	7	6	1	.....	4	4	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....
30	Appendicitis	23	13	9	.....	1	.....	.....	1	1	1	4	.....	1	3	5	5	2	.....	.....
31	Diseases of the liver and biliary passages	82	37	43	1	1	.....	1	.....	.....	2	5	6	5	21	19	17	5	1	.....
32	Other diseases of the digestive system	85	55	29	1	.....	.....	1	1	.....	.....	4	6	4	17	22	22	8	.....	.....
33	Nephritis	184	79	94	6	5	.....	.....	.....	1	3	4	7	9	35	41	55	24	5	.....
34	Other diseases of the urinary and genital systems	46	30	16	.....	1	1	.....	1	2	1	2	5	5	10	8	10	1	.....	.....
35	Puerperal infection	3	.....	3	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	8	.....	8	.....	.....	.....	.....	.....	5	2	.....	1	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	5	3	2	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....	1	1	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	187	100	74	4	9	179	182	2	2	.....	1	.....	.....	.....	.....	4	8	.....	.....
39	Senility, old age	12	4	8	.....	.....	.....	.....	.....	.....	.....	6	9	3	5	15	10	7	.....	.....
40	Suicide	55	38	17	.....	.....	.....	.....	.....	.....	.....	6	9	3	5	15	10	7	.....	.....
41	Homicide	10	6	3	.....	1	1	3	.....	1	.....	1	1	1	3	1	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	54	41	13	.....	.....	1	7	.....	3	6	6	.....	4	6	9	11	1	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	134	67	62	2	3	5	9	4	3	2	5	5	6	4	18	18	20	33	7
44	Causes of death ill-defined, unknown, or unspecified	8	7	1	.....	2	2	.....	.....	.....	.....	1	1	1	1	2	.....	.....	.....	.....

Estimated Population, 447,025.

Total Resident Deaths, 4,217.

Rate per 1,000 Population, 9.4.

TABULATION OF DEATHS IN BURLINGTON COUNTY FOR 1947, 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	1114	562	462	51	39	82	96	4	5	12	20	34	24	48	142	247	267	192	23	...
1	Typhoid and paratyphoid fevers	1			1					1											
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	27	13	9	3	2		1				1	4	2	3	3	7	5	1		
7	All other forms of tuberculosis	2		2				1				1	1								
8	Malaria																				
9	Syphilis	2	5		2	1	1	1								4	3				
10	Influenza	2	1	1			1	1						1							
11	Smallpox																				
12	Measles	2	1	1			1	2													
13	Typhus fever	1		1								1	1				1				
14	Other infectious or parasitic diseases	3	2			1						1	1								
15	Cancer and other malignant tumors	192	93	88	5	6						2	7	4	7	34	49	56	32	1	
16	Nonmalignant tumors or tumors of unspecified nature	3	1	2									1			1	1				
17	Chronic rheumatism and gout	3		3																	
18	Diabetes mellitus	35	10	25			1	1				1	2			7	11	10	1		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	12	3	8		1	1	1			1				1	1	2	4	2		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	2	1	1				1				1									
22	Intracranial lesions of vascular origin	97	41	48	5	3		1				1		2	6	13	18	33	20	3	

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Rate per 1,000 Population, 10.9.

TABULATION OF DEATHS IN CAMDEN COUNTY FOR 1947, 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	3088	1539	1236	172	141	214	243	18	16	20	82	103	89	146	507	677	730	411	46	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever	2		1		1						1				1					
4	Whooping cough	2		1		1	1	2													
5	Diphtheria	2	1	1				1	1												
6	Tuberculosis of the respiratory system	110	61	23	13	13				1	1	20	9	8	7	27	19	14	4		
7	All other forms of tuberculosis	5	2	1	2				2				1		1	1					
8	Malaria																				
9	Syphilis	25	9	2	11	3	1	1				1	2	3	3	9	5	1			
10	Influenza	8	5	2		1	1	1									2	3	2		
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	20	9	10	1		3	5	1		3		1	1	1	2	3	3			
15	Cancer and other malignant tumors	424	197	201	10	16		2		1	1	4	15	15	26	97	126	101	33	3	
16	Nonmalignant tumors or tumors of unspecified nature	11	1	7	1	2					1	2	1	2		3		1	1		
17	Chronic rheumatism and gout	1		1												1					
18	Diabetes mellitus	86	29	54	2	1			1		1	1		1	5	17	30	24	6		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	40	17	21	1	1	2	5	1	3	2	4	5		6	7	4	3			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	10	3	5	2			1					1	1	1	5		1			
22	Intracranial lesions of vascular origin	272	109	144	9	10		2				1	1	5	14	36	67	93	46	7	

23	Other diseases of the nervous system and sense organs	21	11	9	1	2	1	1	1	3	2	4	4	2	1	...	...		
24	Diseases of the heart	1054	608	386	36	24	1	1	1	7	27	25	41	190	258	288	200	15	...		
25	Other diseases of the circulatory system	66	25	34	3	4	1	...	...	1	1	3	...	7	9	22	17	5	...
26	Bronchitis	6	4	2	...	1	2	...	...	...	...	...	...	...	1	2	1	...	...
27	Pneumonia and bronchopneumonia	115	55	33	15	12	17	24	1	1	3	6	7	15	26	23	8	...	...
28	Other diseases of the respiratory system	22	14	5	1	2	...	1	...	2	...	2	2	5	5	5	...	...	...
29	Diarrhea and enteritis	16	7	8	...	1	8	10	...	1	...	...	...	1	3	...	1	...	...
30	Appendicitis	7	3	2	2	...	...	...	1	...	1	...	1	2	1	1	...	...	...
31	Diseases of the liver and biliary passages	50	23	23	...	4	...	...	...	1	1	2	3	17	15	9	2	...	...
32	Other diseases of the digestive system	52	29	20	2	1	2	2	1	1	...	1	3	4	17	19	3	...	...
33	Nephritis	241	94	101	23	23	...	...	...	1	4	4	12	30	44	78	57	11	...
34	Other diseases of the urinary and genital systems	28	15	5	7	1	...	...	...	1	2	...	2	3	8	7	5	...	...
35	Puerperal infection	4	...	2	...	2	...	...	...	1	3	...	...	...	...	...	...	...	...
36	Other diseases of pregnancy, childbirth, and the puerperium	9	...	9	...	...	...	...	...	4	5	...	...	...	...	...	...	...	...
37	Diseases of the skin, cellular tissue, bones, and organs of movement	4	1	3	...	...	...	...	1	...	1	...	...	...	1	...	1	...	...
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	167	82	63	13	9	165	166	...	1	...	...	...	...	...	...	...	...	...
39	Senility, old age	5	2	2	...	1	...	...	...	...	...	...	...	...	...	1	2	2	...
40	Suicide	30	20	9	1	...	...	...	...	5	4	4	3	5	5	4	...	...	...
41	Homicide	12	5	1	6	...	2	2	...	4	...	1	1	4	...	4	...	...	...
42	Automobile accidents (all motor-driven road vehicles)	38	27	8	2	1	...	2	2	1	4	8	7	...	5	4	4	1	...		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	118	68	35	9	6	10	11	5	4	4	6	8	3	7	8	19	20	20	3	...
44	Causes of death ill-defined, unknown, or unspecified	5	3	2	...	1	1	...	1	1	1	1	

Estimated Population, 266,582.

Total Resident Deaths, 3,088.

Rate per 1,000 Population, 11.6.

DEPARTMENT OF HEALTH

[illegible]

23	Other diseases of the nervous system and sense organs	10	4	5	1						1	1	1	3	2	2	1		
24	Diseases of the heart	483	261	178	27	17		1	1	2	14	14	25	92	120	125	84	5	
25	Other diseases of the circulatory system	26	6	14	2	4					1		3	5	11	4	2		
26	Bronchitis	3	2	1		1	1								2				
27	Pneumonia and bronchopneumonia	71	36	16	14	5	11	14		1	3	5	3	11	17	11	6		
28	Other diseases of the respiratory system	14	9	2	1	2				2		2	1	3	2	4			
29	Diarrhea and enteritis	8	3	4		1	6	6						1	1				
30	Appendicitis	5	2	1	2			1		1				2		1			
31	Diseases of the liver and biliary passages	28	13	11		4				1	1		2	10	8	6			
32	Other diseases of the digestive system	21	10	8	2	1		1					2	3	4	9	2		
33	Nephritis	112	42	37	17	16					2	1	4	16	21	41	25	2	
34	Other diseases of the urinary and genital systems	14	9	1	4						1			1	5	2	5		
35	Puerperal infection	2			2														
36	Other diseases of pregnancy, childbirth, and the puerperium	3		3							3								
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3		3						1					1		1		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	83	37	27	11	8	83	83											
39	Senility, old age	1				1												1	
40	Suicide	14	10	4						2	3	3	1	1	3	1			
41	Homicide	10	4	1	5		1	1		4		1	1	3					
42	Automobile accidents (all motor-driven road vehicles)	10	12	2	2		1	1	1	2	3	2		3	2	1			
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	56	31	12	7	6	3	3	3	3	4	3	2	3	6	10	9	7	
44	Causes of death ill-defined, unknown, or unspecified	1		1			1	1											

Estimated Population, 120,500.

Total Resident Deaths, 1,433.

Rate per 1,000 Population, 11.9.

TABULATION OF DEATHS IN CAPE MAY COUNTY FOR 1947, 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	498	249	206	26	17	27	29	2	1	10	8	14	17	73	124	134	67	19		
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2		1		1	2	2													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	6	4	2								1				2	2		1		
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	5	1	1	3		1	1					1				2	1			
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	3	2	1				1					1						1		
15	Cancer and other malignant tumors	77	36	34	3	4		1				1	1	2	2	23	20	18	9		
16	Nonmalignant tumors or tumors of unspecified nature	3	1	1		1								1				1	1		
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	15	7	8					1		1			1		1	2	8	1		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	6	3	3											2		3	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1														1				
22	Intracranial lesions of vascular origin	42	17	19	4	2									3	5	7	16	11		

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Total Resident Deaths, 498.

Rate per 1,000 Population, 15.5.

TABULATION OF DEATHS IN CUMBERLAND COUNTY FOR 1947, 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	1008	518	396	56	38	53	63	5	4	8	29	36	25	44	151	206	264	148	22	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria	1	1					1													
6	Tuberculosis of the respiratory system	23	10	10	1	2					1	4		3	3	3	3	5	1		
7	All other forms of tuberculosis	1	1					1													
8	Malaria																				
9	Syphilis	6	3	2	1											3	2	1			
10	Influenza	3	1										1		1		1				
11	Smallpox																				
12	Measles																				
13	Typhus fever	1	1														1				
14	Other infectious or parasitic diseases	2		2												1	1				
15	Cancer and other malignant tumors	143	61	67	7	8						1	5	8	8	30	42	31	16	2	
16	Nonmalignant tumors or tumors of unspecified nature	5	2	3						1		1	2			1					
17	Chronic rheumatism and gout	1		1													1				
18	Diabetes mellitus	36	8	24	2	2				1		1		2	1	8	11	11	1		
19	Chronic or acute alcoholism	1	1													1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	8	2	6			1	2				1	2	1		1			1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	9	5	4			1	2		1						3	2	1			
22	Intracranial lesions of vascular origin	101	51	45	4	1	1	1					3	2	3	14	24	30	23	1	

23	Other diseases of the nervous system and sense organs	8	2	5	1	.....	.....	.....	.....	4	.....	.....	.....	1	.....	2	1	.....	.....
24	Diseases of the heart	349	200	131	11	7	.....	1	.....	1	6	5	17	59	70	116	56	12	.....
25	Other diseases of the circulatory system	32	17	11	1	3	.....	.....	.....	1	1	.....	.....	1	3	9	15	2	.....
26	Bronchitis	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
27	Pneumonia and bronchopneumonia	20	8	7	4	1	6	8	.....	.....	.....	.....	3	1	4	2	1	1	.....
28	Other diseases of the respiratory system	13	9	3	1	.....	.....	.....	.....	2	1	.....	.....	1	6	3	.....	.....	.....
29	Diarrhea and enteritis	2	1	.....	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
30	Appendicitis	6	3	1	.....	2	.....	1	1	.....	.....	.....	.....	1	1	1	1	.....	.....
31	Diseases of the liver and biliary passages	17	9	5	3	.....	1	1	.....	1	3	.....	1	3	2	4	1	1	.....
32	Other diseases of the digestive system	20	12	6	2	.....	.....	1	.....	.....	2	1	3	5	1	3	4	.....	.....
33	Nephritis	66	36	24	3	3	.....	.....	.....	1	.....	3	3	6	15	26	11	1	.....
34	Other diseases of the urinary and genital systems	9	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	3	2	.....	.....
35	Puerperal infection .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	3	.....	2	.....	1	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	42	22	10	6	4	40	41	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	6	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1	.....
40	Suicide	9	8	.....	1	.....	.....	.....	.....	.....	1	1	.....	3	.....	4	.....	.....	.....
41	Homicide	3	1	.....	1	1	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	26	16	7	2	1	.....	2	1	2	4	5	1	1	2	3	3	2	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	32	14	12	4	2	2	4	.....	4	2	3	.....	.....	2	3	8	5	1
44	Causes of death ill-defined, unknown, or unspecified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 80,443.

Total Resident Deaths, 1,008.

Rate per 1,000 Population, 12.5.

TABULATION OF DEATHS IN ESSEX COUNTY FOR 1947, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														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	90 and Over	
	ALL CAUSES	9715	4653	3977	553	532	586	684	36	25	35	254	422	382	472	1674	2212	2222	1147	150	...
1	Typhoid and paratyphoid fevers	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
2	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough	1	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	389	164	82	74	69	1	1	.....	3	11	73	73	51	35	64	39	22	16	1	.....
6	Tuberculosis of the respiratory system	27	8	2	5	12	1	5	1	1	.....	7	5	2	2	2	2	.....	.....	.....	.....
7	All other forms of tuberculosis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	72	34	7	20	11	6	6	.....	.....	.....	2	2	8	7	23	21	3	.....	.....	.....
9	Syphilis	11	2	9	.....	.....	4	3	.....	.....	.....	.....	.....	.....	.....	1	1	4	.....	.....	.....
10	Influenza .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	41	22	15	2	2	2	4	1	.....	.....	6	3	5	3	8	4	5	2	.....	.....
15	Cancer and other malignant tumors	1551	738	689	49	75	.....	4	6	1	.....	17	58	66	97	365	455	362	111	9	.....
16	Nonmalignant tumors or tumors of unspecified nature	49	17	19	4	9	1	3	.....	1	1	4	12	2	5	11	7	3	.....	.....	.....
17	Chronic rheumatism and gout	11	1	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	6	2	.....	.....
18	Diabetes mellitus	325	97	202	9	17	1	1	1	.....	.....	2	9	7	6	69	116	87	27	.....	.....
19	Chronic or acute alcoholism	17	8	4	4	1	.....	.....	.....	.....	.....	1	7	4	.....	5	.....	.....	.....	.....	.....
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	101	44	47	5	5	5	17	2	1	1	7	5	7	3	17	21	18	2	.....	.....
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	35	17	17	1	.....	.....	3	1	.....	1	2	2	.....	2	11	10	2	1	.....	.....
22	Intracranial lesions of vascular origin	770	299	404	23	44	3	5	.....	.....	1	4	11	15	26	128	194	253	119	14	.....

23	Other diseases of the nervous system and sense organs	68	33	23	8	4	6	12	2	1	2	4	13	6	4	8	10	4	1	1	....
24	Diseases of the heart	3450	1795	1401	136	118	1	4	3	5	21	81	110	143	592	932	963	518	77	....
25	Other diseases of the circulatory system	244	93	125	13	13	1	1	1	1	1	3	11	6	17	50	72	63	19	....
26	Bronchitis	21	12	5	2	2	3	7	1	1	1	1	1	1	3	5	3	1	1	....
27	Pneumonia and bronchopneumonia	244	121	84	27	12	35	47	2	1	1	7	4	8	14	32	41	46	34	8	....
28	Other diseases of the respiratory system	52	33	15	2	2	1	1	1	1	3	3	3	3	14	12	10	3	1	....
29	Diarrhea and enteritis	25	9	13	1	2	14	16	1	1	1	2	3	1	1	2	2	1	1	....
30	Appendicitis	36	20	13	3	1	1	2	2	2	2	5	3	4	4	3	2	8	1	....
31	Diseases of the liver and biliary passages	184	103	74	2	5	1	1	1	1	2	13	14	19	54	38	34	9	1	....
32	Other diseases of the digestive system	190	112	54	13	11	2	5	2	1	2	3	13	8	13	40	52	31	20	1	....
33	Nephritis	561	244	253	27	37	1	3	1	1	1	12	28	20	28	90	97	157	113	10	....
34	Other diseases of the urinary and genital systems	97	72	12	7	6	1	1	1	1	1	4	3	4	4	18	20	26	16	1	....
35	Puerperal infection	5	1	4	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	....
36	Other diseases of pregnancy, childbirth, and the puerperium	10	1	9	1	1	1	1	1	1	1	3	6	1	1	1	1	1	1	1	....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	22	13	9	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	482	225	159	55	43	468	478	1	1	1	2	1	1	1	1	1	1	1	1	....
39	Senility, old age	23	5	14	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	....
40	Suicide	120	72	41	5	2	1	1	1	1	1	10	17	11	16	30	17	15	3	1	....
41	Homicide	27	7	2	12	6	1	1	1	1	1	10	12	1	2	2	1	1	1	1	....
42	Automobile accidents (all motor-driven road vehicles)	97	66	20	9	2	7	4	1	4	4	17	9	3	7	16	17	10	2	1	....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	350	164	136	32	18	31	46	5	7	2	16	22	14	17	44	37	67	63	10	....
44	Causes of death ill-defined, unknown, or unspecified	6	2	3	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	....

Estimated Population, 886,706.

Total Resident Deaths, 9,715.

Rate per 1,000 Population, 11.0.

TABULATION OF DEATHS IN EAST ORANGE CITY FOR 1947, 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	881	406	398	32	45	41	45	1	1	1	16	20	35	38	124	202	236	141	21	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	18	9	2	4	3						5	3	1	1	7	1				
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	2		1		1										1	1				
10	Influenza	1		1													1				
11	Smallpox																				
12	Measles																				
13	Typhus fever	3		1																	
14	Other infectious or parasitic diseases		2				1	1								1	1				
15	Cancer and other malignant tumors	157	62	81	3	11			1			1	2	14	8	27	44	46	14		
16	Nonmalignant tumors or tumors of unspecified nature	1	1													1					
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	25	12	11		2								2		4	6	8	5		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	9	4	4		1		1				1				2	3	2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	4	1	3									1			1	2				
22	Intracranial lesions of vascular origin	72	25	41	2	4						1	1	1	2	11	18	20	17	1	

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Rate per 1,000 Population, 12.0.

TABULATION OF DEATHS IN IRVINGTON FOR 1947, 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	599	321	268	1	.....	25	28	2	2	2	5	21	23	19	110	161	139	68	10	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	8	5	3									1	1	2		2	2			
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	5	4		1											2	3				
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever	3	3																		
14	Other infectious or parasitic diseases	3	3									1	1	1							
15	Cancer and other malignant tumors	98	49	49									7	4	5	30	27	16	7	2	
16	Nonmalignant tumors or tumors of unspecified nature	2	2																		
17	Chronic rheumatism and gout	1		1											1			1			
18	Diabetes mellitus	21	6	15									1		1	2	10	6	1		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	5	3	2										1		3	1				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	2	2								1						1				
22	Intracranial lesions of vascular origin	61	27	34										2		12	19	18	9	1	

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Total Resident Deaths, 590.

Rate per 1,000 Population, 9.9.

TABULATION OF DEATHS IN NEWARK FOR 1947, 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	5156	2460	1889	420	387	350	399	20	14	24	161	273	216	304	972	1196	1059	464	54	...
1	Typhoid and paratyphoid fevers	1		1													1				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1	1				1	1													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	283	116	47	62	58	1	1		2	11	56	51	39	28	44	26	16	9		
7	All other forms of tuberculosis	21	4	1	4	12	1	3	1	1		7	4	2	2		1				
8	Malaria																				
9	Syphilis	52	22	5	17	8	5	5				1	1	8	4	17	13	3			
10	Influenza	3	1	2												1		2			
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	16	9	5		2	1	2				2	1	2	2	4	2		1		
15	Cancer and other malignant tumors	792	388	321	37	46		3	3			9	34	25	54	209	253	159	38	5	
16	Nonmalignant tumors or tumors of unspecified nature	31	8	11	4	8	1	3		1		3	8	2	3	5	5	1			
17	Chronic rheumatism and gout	6	1	5																	
18	Diabetes mellitus	183	49	118	6	10	1	1	1			2	7	3	5	41	63	50	10		
19	Chronic or acute alcoholism	13	5	3	4	1						1	4	3		5					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	49	23	18	4	4	5	12	1	1	1	4	3	3	1	7	10	6			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	17	7	9	1			1	1			1			2	9	2	1			
22	Intracranial lesions of vascular origin	379	144	193	17	25	1	3					5	5	20	71	101	125	44	5	

23	Other diseases of the nervous system and sense organs	37	16	12	6	3	3	4	2	1	2	11	2	2	6	5	2	.....	.....
24	Diseases of the heart	1745	926	649	93	77	.....	4	2	4	13	53	60	80	331	488	454	225	31
25	Other diseases of the circulatory system	132	53	58	10	11	1	1	.....	.....	.....	2	9	4	11	29	37	31	8
26	Bronchitis	19	5	2	1	2	2	4	.....	.....	.....	1	.....	1	1	2	.....	1	.....
27	Pneumonia and bronchopneumonia	129	68	35	18	8	22	29	1	.....	4	4	5	11	21	19	17	16	2
28	Other diseases of the respiratory system	28	16	9	2	1	.....	1	1	.....	2	2	.....	3	7	8	4	.....	.....
29	Diarrhea and enteritis	15	3	9	1	2	10	10	.....	.....	2	.....	1	.....	1	.....	1	.....	.....
30	Appendicitis	20	12	5	3	.....	.....	1	.....	1	2	2	4	3	1	1	5	.....	.....
31	Diseases of the liver and biliary passages	105	59	40	1	5	.....	.....	.....	.....	2	8	9	12	36	18	16	4	.....
32	Other diseases of the digestive system	108	65	22	11	10	2	2	.....	2	2	9	4	11	23	35	17	3	.....
33	Nephritis	284	123	111	23	27	.....	2	1	1	9	19	13	19	52	58	65	42	2
34	Other diseases of the urinary and genital systems	50	36	5	4	5	.....	1	.....	.....	3	2	1	3	11	12	14	3	.....
35	Puerperal infection	3	.....	3	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	4	.....	4	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	14	9	5	.....	.....	.....	.....	.....	.....	3	.....	3	2	3	2	1	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	287	122	85	44	36	279	284	.....	.....	2	.....	.....	.....	1	.....	.....	.....	.....
39	Senility, old age	14	4	8	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	11	.....	.....
40	Suicide	64	37	22	3	2	.....	.....	.....	.....	6	11	5	10	16	8	8	.....	.....
41	Homicide	21	4	2	10	5	.....	.....	.....	.....	8	9	.....	1	1	2	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	46	29	8	7	2	.....	1	3	2	5	5	3	5	11	8	3	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	189	94	54	25	16	13	23	2	5	7	12	8	14	27	20	44	25	1
44	Causes of death ill-defined, unknown, or unspecified	4	1	2	1	.....	1	1	.....	.....	1	.....	.....	1	.....	1	.....	.....	.....

Estimated Population, 443,000.

Total Resident Deaths, 5,156.

Rate per 1,000 Population, 11.6.

TABULATION OF DEATHS IN GLOUCESTER COUNTY FOR 1947, 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	956	452	401	60	43	76	87	5	3	17	41	25	44	124	205	239	145	21	...	
1	Typhoid and paratyphoid fevers	1		1							1										
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	12	5	8	5						2	2	1		5	5	2	1			
7	All other forms of tuberculosis	2			1	1					1					1					
8	Malaria																				
9	Syphilis	2	1	3	3	1	2	2				1	1	1	2	1					
10	Influenza	4	2	1	1		1	2										2			
11	Smallpox																				
12	Measles																				
13	Typhus fever	1		1														1			
14	Other infectious or parasitic diseases	12				1	1	1													
15	Cancer and other malignant tumors	141	66	65	6	4					1	5	4	10	28	37	43	13			
16	Nonmalignant tumors or tumors of unspecified nature	5	1	4										1	2		1	1			
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	30	13	17											2	4	13	6	5		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	7	2	3	1	1	3	4	1		1										
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	1	2			1	2													
22	Intracranial lesions of vascular origin	80	25	43	5	7							2	3	3	9	16	30	16	1	

Rate per 1,000 Population, 12.5.

TABULATION OF DEATHS IN HUDSON COUNTY FOR 1947, 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	7134	3802	3095	127	110	381	435	17	21	34	142	300	268	396	1350	1693	1638	750	90	...
1	Typhoid and paratyphoid fevers	1		1								1									
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2	1	1			1	2													
5	Diphtheria	3	1	2				1	2												
6	Tuberculosis of the respiratory system	265	182	57	12	14				1	3	24	37	26	27	61	59	22	4	1	
7	All other forms of tuberculosis	19	6	10	2	1	1	2					2	5	1	6	2		1		
8	Malaria	1	1									1									
9	Syphilis	35	18	10	5	2	1	1			1	1	1	7	1	6	14	3			
10	Influenza	7	3	4			2	2						1			1		3		
11	Smallpox								1												
12	Measles	1		1																	
13	Typhus fever		15			2	2	3	2			5	5	2	3	2	6		2		
14	Other infectious or parasitic diseases	31	14	15				3	1	2											
15	Cancer and other malignant tumors	1217	636	552	13	16	2	9	3		1	10	41	49	78	293	360	285	84	4	
16	Nonmalignant tumors or tumors of unspecified nature	34	13	19	1	1		1			1	3	3	3	4	11	5	2	1		
17	Chronic rheumatism and gout	4	1	3																	
18	Diabetes mellitus	233	57	169	1	6						1	8	4	9	39	72	80	20		
19	Chronic or acute alcoholism	20	16	4									8	2	4	3	3				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	76	36	37	2	1	2	7		1	1	9	11	3	7	15	10	11	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	22	14	7	1		3	3				1	2	1		4	10	1			
22	Intracranial lesions of vascular origin	574	255	305	6	8	1	1				2	14	13	30	112	155	168	66	13	

23	Other diseases of the nervous system and sense organs	49	17	36	2	1	2	1	3	8	4	5	3	7	6	6	2	2
24	Diseases of the heart	2752	1312	1177	37	26	1	1	1	8	17	74	64	155	508	694	786	395
25	Other diseases of the circulatory system	130	56	71	1	2	1	1	1	1	1	6	4	17	23	34	40	4
26	Bronchitis	10	7	3	1	4	1	1	1	1	1	1	1	3	1	2	2	1
27	Pneumonia and bronchopneumonia	223	113	91	12	7	38	46	1	5	9	8	9	11	41	37	26	24
28	Other diseases of the respiratory system	44	25	17	2	2	2	2	1	3	5	4	1	7	14	4	2	1
29	Diarrhea and enteritis	20	6	10	3	1	9	10	1	1	1	2	1	3	2	2	1	1
30	Appendicitis	26	19	6	1	1	1	1	1	3	3	1	2	7	8	1	1	1
31	Diseases of the liver and biliary passages	152	93	59	1	1	1	1	1	2	13	11	15	45	38	22	4	1
32	Other diseases of the digestive system	128	80	47	1	2	3	1	2	1	2	10	6	10	31	32	20	10
33	Nephritis	282	145	124	5	8	1	1	2	6	10	9	6	47	74	77	44	5
34	Other diseases of the urinary and genital systems	45	31	12	2	1	1	1	1	1	1	2	1	12	6	16	7	1
35	Puerperal infection	4	3	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1
36	Other diseases of pregnancy, childbirth, and the puerperium	3	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and organs of movement	9	4	5	2	1	2	1	1	1	1	1	1	1	1	2	2	1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	309	168	124	12	5	300	306	2	1	1	1	1	1	1	1	1	1
39	Senility, old age	5	1	4	1	1	1	1	1	1	1	1	1	1	1	1	2	2
40	Suicide	61	44	16	1	1	1	1	2	2	7	9	6	13	14	8	2	1
41	Homicide	16	10	2	3	1	1	1	2	5	3	2	2	2	1	1	1	1
42	Automobile accidents (all motor-driven road vehicles)	60	48	11	1	4	1	4	2	10	5	3	3	12	5	10	1	1
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	257	168	81	5	3	8	18	4	3	13	18	18	15	42	38	50	35
44	Causes of death ill-defined, unknown, or unspecified	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 704,340.

Total Resident Deaths, 7,134.

Rate per 1,000 Population, 10.1.

TABULATION OF DEATHS IN BAYONNE FOR 1947, 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	Mala	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	722	406	292	11	13	42	45	2	3	5	17	39	27	43	144	197	139	58	3	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	27	20	4	1	2					1	3	2	1	2	7	11				
7	All other forms of tuberculosis	1	1													1					
8	Malaria																				
9	Syphilis	2	4	1	1	2					1	1	1	1	1		3				
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases																				
15	Cancer and other malignant tumors	137	80	54	2	1			2				8	8	9	38	43	22	7		
16	Nonmalignant tumors or tumors of unspecified nature	5	2	3								1	1			2		1			
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	26	8	17		1							2			4	5	12	3		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	6	1	5			1	1				1			2	1		1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	2	1												1	1				
22	Intracranial lesions of vascular origin	75	29	44	1	1							3	2	4	18	28	12	8		

28.

Total Resident Deaths, 722.

Rate per 1,000 Population, 8.0.

TABULATION OF DEATHS IN HOBOKEN FOR 1947, 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	633	370	248	4	2	33	30	2	5	3	9	26	10	35	114	169	147	69	6	...
1	Typhoid and paratyphoid fevers	1		1								1									
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1		1																	
5	Diphtheria	2	1	1				1	1												
6	Tuberculosis of the respiratory system	32	24	6		2							5	1	5	12	6	2	1		
7	All other forms of tuberculosis	1		1												1					
8	Malaria																				
9	Syphilis	2		1	1											1	1				
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	3		3						2		1									
15	Cancer and other malignant tumors	98	59	39			2	2					2	1	4	19	32	30	6		
16	Nonmalignant tumors or tumors of unspecified nature	1	1													1					
17	Chronic rheumatism and gout	1		1																	
18	Diabetes mellitus	16	5	11												2	6	5	3		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	2	1	1												2					
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	1	2			1	1					2								
22	Intracranial lesions of vascular origin	45	25	20									2	2	3	7	9	18	2	2	...

23	Other diseases of the nervous system and sense organs	3	2	1	.....	.....	.....	.....	1	.....	1	.....	1	.....	1	.....	.....	.....
24	Diseases of the heart	277	165	111	1	.....	.....	.....	2	.....	8	4	19	42	84	70	45	3
25	Other diseases of the circulatory system	9	3	6	.....	.....	.....	.....	2	.....	.....	.....	2	.....	1	2	4	.....
26	Bronchitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	20	14	6	.....	7	9	1	.....	1	.....	1	.....	4	3	.....	1	.....
28	Other diseases of the respiratory system	3	2	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....
29	Diarrhea and enteritis	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
30	Appendicitis	6	4	1	1	.....	.....	.....	.....	.....	.....	1	.....	1	4	.....	.....	.....
31	Diseases of the liver and biliary passages	13	8	5	.....	.....	.....	.....	.....	2	.....	1	.....	4	4	2	.....	.....
32	Other diseases of the digestive system	11	10	1	.....	.....	.....	1	.....	1	.....	.....	.....	4	3	2	.....	.....
33	Nephritis	23	14	9	.....	.....	.....	.....	1	.....	1	.....	.....	4	7	7	3	.....
34	Other diseases of the urinary and genital systems .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Puerperal infection	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	24	17	6	1	.....	23	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	7	5	2	.....	.....	.....	.....	1	2	.....	.....	.....	2	2	.....	.....	.....
41	Homicide .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	26	17	9	.....	1	.....	2	.....	1	.....	1	.....	4	5	7	5	.....
44	Causes of death ill-defined, unknown, or unspecified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 51,605.

Total Resident Deaths, 633.

Rate per 1,000 Population, 12.3.

TABULATION OF DEATHS IN JERSEY CITY FOR 1947, 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	3515	1836	1478	109	92	205	231	8	11	13	81	145	134	190	687	838	782	349	46	....
1	Typhoid and paratyphoid fevers .....																				....
2	Plague .....																				....
3	Scarlet fever .....																				....
4	Whooping cough .....																				....
5	Diphtheria	1		1						1											....
6	Tuberculosis of the respiratory system	147	97	29	11	10				1	2		15	26	17	14	26	30	13	2	1
7	All other forms of tuberculosis	12	4	5	2	1	1	2					2	2	2		3	2		1	....
8	Malaria .....																				....
9	Syphilis	16	8	5	3		1	1						3		4	6	2			....
10	Influenza	4	3	1			1	1						1			1			1	....
11	Smallpox .....																				....
12	Measles	1		1																	....
13	Typhus fever		9	5		2	2	2				2	3	1	2	2	3		1		....
14	Other infectious or parasitic diseases	16																			....
15	Cancer and other malignant tumors	586	298	262	11	15		6	1			6	20	19	39	149	179	129	35	3	....
16	Nonmalignant tumors or tumors of unspecified nature	20	7	11	1	1		1				1	2	1	2	2	6	3	1	1	....
17	Chronic rheumatism and gout	1																1			....
18	Diabetes mellitus	112	24	83	1	4						1	2	4	6	21	36	32	10		....
19	Chronic or acute alcoholism	17	15	2									8		4	2	3				....
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	39	21	15	2	1		3			1	5	5	2	2	8	6	6	1		....
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	10	5	4	1		2	2				1				1	5	1			....
22	Intracranial lesions of vascular origin	287	126	149	5	7						2	5	6	19	53	77	87	33	5	....

23	Other diseases of the nervous system and sense organs	25	9	14	2	.....	1	1	1	1	4	2	2	2	3	5	2	.....	1	.....
24	Diseases of the heart	1328	712	560	32	24	.....	1	1	1	1	12	29	35	61	267	347	367	181	25	.....
25	Other diseases of the circulatory system	65	32	30	1	2	1	1	1	1	.....	.....	.....	4	2	7	14	17	18	1	.....
26	Bronchitis	4	3	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1	.....
27	Pneumonia and bronchopneumonia	131	56	58	11	6	16	19	.....	2	4	5	6	7	.....	26	21	20	19	2	.....
28	Other diseases of the respiratory system	20	10	8	.....	2	1	1	1	.....	1	4	2	.....	.....	4	5	1	1	.....
29	Diarrhea and enteritis	13	5	5	3	.....	6	7	.....	1	1	.....	1	.....	.....	1	1	.....	.....	1	.....
30	Appendicitis	7	5	2	.....	.....	1	1	.....	.....	.....	.....	.....	.....	1	4	1	.....	.....	.....	.....
31	Diseases of the liver and biliary passages	77	53	24	.....	.....	.....	.....	.....	2	3	7	8	.....	23	20	12	2	.....	.....	.....
32	Other diseases of the digestive system	64	37	26	1	.....	2	3	.....	1	1	1	2	1	5	19	12	13	6	.....	.....
33	Nephritis	167	51	47	3	6	.....	.....	1	.....	1	5	5	2	2	17	27	31	12	4	.....
34	Other diseases of the urinary and genital systems	24	18	4	.....	2	.....	.....	.....	.....	.....	1	1	1	3	2	12	4	.....	.....	.....
35	Puerperal infection	2	.....	1	.....	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	2	.....	1	.....	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	5	2	3	.....	.....	2	.....	1	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	167	85	68	10	4	165	167	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
40	Suicide	28	23	5	.....	.....	.....	.....	.....	.....	.....	2	5	2	8	6	4	1	.....	.....	.....
41	Homicide	10	6	1	3	.....	1	1	.....	1	.....	3	3	1	.....	1	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	31	26	4	1	.....	2	1	2	.....	4	3	2	1	7	4	5	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	135	85	42	5	3	4	6	.....	2	2	8	11	8	10	20	20	27	18	3	.....
44	Causes of death ill-defined, unknown, or unspecified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 315,000.

Total Resident Deaths, 3,515.

Rate per 1,000 Population, 11.2.

TABULATION OF DEATHS IN UNION CITY FOR 1947, 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	639	330	307	1	1	27	32	....	....	1	10	29	29	36	103	148	172	67	12	....
1	Typhoid and paratyphoid fevers																					
2	Plague																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria																					
6	Tuberculosis of the respiratory system	18	11	7								1	1	5	1	2	6	1	1			
7	All other forms of tuberculosis																					
8	Malaria																					
9	Syphilis	1	1											1								
10	Influenza																					
11	Smallpox																					
12	Measles																					
13	Typhus fever		1	1																		
14	Other infectious or parasitic diseases	2	1	1											1		1					
15	Cancer and other malignant tumors	118	59	59								2	5	4	5	27	34	28	12	1		
16	Nonmalignant tumors or tumors of unspecified nature	3	2	1											1	1	1					
17	Chronic rheumatism and gout																					
18	Diabetes mellitus	21	3	18									1		2	4	9	3	2			
19	Chronic or acute alcoholism	2		2										1		1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	11	5	6								1	2		1	2	4	1				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	2	2													1	1					
22	Intracranial lesions of vascular origin	51	27	24										1	2	1	4	13	22	6	2	

Rate per 1,000 Population, 11.0.

TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1947, 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	478	251	225	1	1	26	33	3	1	3	4	14	9	12	57	110	132	86	14	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	8	4	4								1				3	3	1			
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	2	1	1									1			1					
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases																				
15	Cancer and other malignant tumors	77	35	42							1		2	2	2	15	25	17	10	3	...
16	Nonmalignant tumors or tumors of unspecified nature	2	2									1				1					
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	17	5	12									1			5		9	2		
19	Chronic or acute alcoholism	2	2														2				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	4	2	2			2	2	1							1					
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1					1													
22	Intracranial lesions of vascular origin	27	9	18											1	2	6	8	8	2	...

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Rate per 1,000 Population, 12.6.

TABULATION OF DEATHS IN MERCER COUNTY FOR 1947, 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	2345	1191	948	111	95	167	198	8	3	17	61	94	82	112	381	539	513	298	39	...
1	Typhoid and paratyphoid fevers	1				1					1										
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2			1		2														
5	Diphtheria	3	1	2				12	1												
6	Tuberculosis of the respiratory system	90	57	10	16	7					1	11	15	7	9	17	21	8	1		
7	All other forms of tuberculosis	5	1	1	1	2		1	1				1		1			1			
8	Malaria																				
9	Syphilis	12	7	1	3	1							2	2	1	3	3	1	1		
10	Influenza	3	1	2			2	2													
11	Smallpox	1			1								1								
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	7	4	2		1		1				1	2	1		1			1		
15	Cancer and other malignant tumors	371	182	167	11	11		2				3	9	17	17	83	109	98	33		
16	Nonmalignant tumors or tumors of unspecified nature	13	1	10		2						3	2	4	3	1					
17	Chronic rheumatism and gout	4	2	2													2	2			
18	Diabetes mellitus	79	23	51	3	2								1	2	15	34	18	8	1	
19	Chronic or acute alcoholism	3	2		1									1		1	1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	27	12	14		1	2	3				1	2		2	4	6	6	3		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	7	2	4	1				1			1		1	1		1	2			
22	Intracranial lesions of vascular origin	192	89	93	6	4						1	5	2	8	33	48	70	22	3	

23	Other diseases of the nervous system and sense organs	12	8	3	1						1	2	1	3	3	2				
24	Diseases of the heart	809	423	338	21	27					8	15	20	42	142	209	215	135	23	
25	Other diseases of the circulatory system	73	37	32	1	3								2	8	26	30	7		
26	Bronchitis	5	3	2											1	1	1			
27	Pneumonia and bronchopneumonia	74	41	24	3	6	17	23	1	2	2	2	1	6	6	10	13	8		
28	Other diseases of the respiratory system	12	6	4	1	1	1	1					1	1	2	4	2		1	
29	Diarrhea and enteritis	18	8	6	2	2	16	17								1				
30	Appendicitis	15	4	9	2			2		1	1	2	2	1	2	3	1			
31	Diseases of the liver and biliary passages	45	32	12	1							4	5	6	12	11	5	2		
32	Other diseases of the digestive system	40	24	10		6	3	6		1	1	3	3	1	6	9	1	8	1	
33	Nephritis	101	49	44	3	5				1	1	4	3	4	19	24	21	23	1	
34	Other diseases of the urinary and genital systems	19	12	6		1	1	2				1	1		4	6	3	2		
35	Puerperal infection	2		2							2									
36	Other diseases of pregnancy, childbirth, and the puerperium	3		3						1	2									
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	3											1	1		1			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	123	57	48	14	4	115	120		1	1		1							
39	Senility, old age	4		4													1	2	1	
40	Suicide	19	16	3							4	2	2		4	3	3	1		
41	Homicide	12	3	1	8		3	4		2	1	2			1	2				
42	Automobile accidents (all motor-driven road vehicles)	45	31	8	3	3	1	4	1	4	10	6	6		5	7	1	1		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	89	48	29	8	4	3	3	4	1	5	12	2	5	14	13	11	16	1	
44	Causes of death ill-defined, unknown, or unspecified	2	2				1	1						1						

Estimated Population, 216,264.

Total Resident Deaths, 2,345.

Rate per 1,000 Population, 10.8.

TABULATION OF DEATHS IN TRENTON FOR 1947, 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	1439	731	570	78	60	101	120	3	3	7	36	52	45	65	253	353	310	170	22	....
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2		1	1		2	12													
5	Diphtheria	3	1	2				1													
6	Tuberculosis of the respiratory system	65	38	6	15	6						9	11	6	6	14	14	4	1		
7	All other forms of tuberculosis	4	1		1	2		1	1						1						
8	Malaria																				
9	Syphilis	6	4	1	1								2	1		1	1	1			
10	Influenza	1	1																1		
11	Smallpox	1			1								1								
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	4	3	1				1					1	1		1					
15	Cancer and other malignant tumors	232	119	102	6	5						3	3	9	12	56	72	57	20		
16	Nonmalignant tumors or tumors of unspecified nature	7		5		2						2	1	3	1						
17	Chronic rheumatism and gout	2	2														1	1			
18	Diabetes mellitus	40	16	23	1										1	7	19	12	1		
19	Chronic or acute alcoholism	3	2		1									1		1	1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	14	7	6		1	1	1				1			2	2	5	2	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	4	1	2	1				1			1			1		1				
22	Intracranial lesions of vascular origin	127	64	54	5	4							4	2	5	23	34	48	11		

Rate per 1,000 Population, 11.2.

TABULATION OF DEATHS IN MIDDLESEX COUNTY FOR 1947, 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	2255	1291	873	61	30	170	186	3	8	19	48	102	68	110	448	530	480	228	25	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1		1			1	1													
5	Diphtheria	2	2							1			1								
6	Tuberculosis of the respiratory system	59	29	18	6	6					3	9	13	3	4	14	11	2			
7	All other forms of tuberculosis	10	5	4	1		1	2			1	2	2	2		1					
8	Malaria																				
9	Syphilis	14	7	4	3								3	2		3	4	2			
10	Influenza	3	2	1				1								2					
11	Smallpox																				
12	Measles																				
13	Typhus fever										1	1	1	2		5	2				
14	Other infectious or parasitic diseases	12	10	2								1	1	1							
15	Cancer and other malignant tumors	378	203	169	4	2					1	1	13	9	20	99	120	89	26		
16	Nonmalignant tumors or tumors of unspecified nature	8		7	1								1	1	1	4		1			
17	Chronic rheumatism and gout	2		2																	
18	Diabetes mellitus	68	25	43									2		1	9	27	1	1		
19	Chronic or acute alcoholism	1	1										1								
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	30	21	8	1		1	4		2	3		1	2		9	2	5	1	1	
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	1	2												2	1				
22	Intracranial lesions of vascular origin	187	92	91	3	1	1	1					1	1	4	41	44	60	34	1	

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Rate per 1,000 Population, 9.3.

TABULATION OF DEATHS IN MONMOUTH COUNTY FOR 1947, 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	2390	1188	955	127	129	122	134	12	4	10	44	81	76	92	369	544	601	360	72	....
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough						2		2												
5	Diphtheria		1					1													
6	Tuberculosis of the respiratory system	56	26	11	11	8						10	11	8	5	8	6	6	1	1	
7	All other forms of tuberculosis	3			3							1			1	1					
8	Malaria																				
9	Syphilis	12	3	1	5	3							1		1	3	4	3			
10	Influenza	3	2	1								1						1	1		
11	Smallpox																				
12	Measles																				
13	Typhus fever					1					2		2		1	1		1	1		
14	Other infectious or parasitic diseases	9	2	1	2							1	2		1	1			1		
15	Cancer and other malignant tumors	363	184	149	13	17						1	9	12	21	71	100	101	45	3	
16	Nonmalignant tumors or tumors of unspecified nature	7	4	3									3			2		1	1		
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	77	27	42	3	5								2		18	24	25	7	1	
19	Chronic or acute alcoholism	2	2										1	1							
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	30	16	8	2	4	5	8	1			1		5	1	7	5	2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	5	5								1				1	1	2				
22	Intracranial lesions of vascular origin	199	73	104	6	16						2	3	4	3	26	50	55	43	13	

23	Other diseases of the nervous system and sense organs	15	5	8	2	.....	2	.....	1	3	1	2	.....	1	3	2	.....
24	Diseases of the heart	923	498	349	37	39	.....	.....	5	10	19	33	146	237	270	176	21
25	Other diseases of the circulatory system	62	31	30	.....	1	.....	.....	.....	1	.....	2	4	7	20	16	12
26	Bronchitis	4	1	2	1	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	1
27	Pneumonia and bronchopneumonia	69	35	25	5	4	12	13	1	.....	4	3	3	7	13	16	7
28	Other diseases of the respiratory system	18	8	8	.....	2	1	1	1	.....	1	1	1	2	1	4	5
29	Diarrhea and enteritis	4	1	3	.....	.....	1	2	.....	.....	.....	1	.....	.....	1	.....	.....
30	Appendicitis	10	3	5	1	1	.....	1	.....	1	.....	2	.....	.....	3	.....	.....
31	Diseases of the liver and biliary passages	50	24	21	3	2	.....	.....	2	1	3	4	15	12	8	5	.....
32	Other diseases of the digestive system	44	24	16	2	2	.....	1	2	.....	2	4	.....	9	18	7	1
33	Nephritis	141	70	58	4	9	.....	.....	.....	2	3	4	5	22	27	49	23
34	Other diseases of the urinary and genital systems	14	9	3	2	.....	1	1	.....	.....	1	.....	.....	2	3	5	2
35	Puerperal infection	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	5	.....	3	.....	2	.....	.....	1	3	1	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	1	.....	2	.....	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	92	41	38	7	6	90	91	.....	1	.....	.....	.....	1	7	9	8
39	Senility, old age	26	9	15	1	1	.....	.....	.....	.....	.....	.....	1	1	7	9	8
40	Suicide	23	15	7	.....	1	.....	.....	1	2	5	.....	2	11	1	.....	.....
41	Homicide	9	3	2	3	1	.....	.....	1	1	.....	2	.....	2	2	1	.....
42	Automobile accidents (all motor-driven road vehicles)	29	23	7	.....	.....	1	1	.....	1	5	5	2	4	4	5	1
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	82	41	28	9	4	6	7	5	2	2	2	6	3	3	12	10
44	Causes of death ill-defined, unknown, or unspecified	6	2	1	3	.....	2	2	.....	.....	1	1	.....	1	.....	1	.....

Estimated Population, 180,074.

Total Resident Deaths, 2,390.

Rate per 1,000 Population, 13.3.

TABULATION OF DEATHS IN MORRIS COUNTY FOR 1947, 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	1502	802	656	29	15	97	106	8	4	8	24	41	47	67	215	349	385	218	30	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	36	20	13	3							5	5	2	2	7	8	5	2		
7	All other forms of tuberculosis	1	1													1					
8	Malaria																				
9	Syphilis	3	3												1		2				
10	Influenza	5	3	2			1	1							1	1		2			
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	9	5	3	1				1	1		2			2		1	2			
15	Cancer and other malignant tumors	225	98	123	3	1		1				2	8	12	9	48	66	61	17	1	
16	Nonmalignant tumors or tumors of unspecified nature	4		3		1					1				2		1				
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	35	15	20									1		1	5	12	9	7		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	17	10	7			4	5					1	1	3	3	4				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	4	2	2													2	1	1		
22	Intracranial lesions of vascular origin	112	50	59	1	2								1	2	17	26	42	21	3	

Rate per 1,000 Population, 11.0.

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1947, 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	613	332	254	12	15	43	47	1	3	1	15	17	15	25	88	121	163	109	8	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	17	9	6	1	1						1	3	1	2	3	6	1			
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	2	1		1										1	1					
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	1	1									1									
15	Cancer and other malignant tumors	102	45	55		2				1			3	3	5	19	31	28	11	1	...
16	Nonmalignant tumors or tumors of unspecified nature	1		1											1						
17	Chronic rheumatism and gout	1		1														1			
18	Diabetes mellitus	11	5	6											1	2	4	3	1		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	7	7				2	2								3		1	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord																				
22	Intracranial lesions of vascular origin	54	22	29	1	2						1	1	1	1	6	13	17	14		

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Rate per 1,000 Population, 15.0.

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TABULATION OF DEATHS IN PASSAIC COUNTY FOR 1947, 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	3355	1777	1455	67	56	185	212	13	11	16	60	120	95	143	570	789	859	413	54	...	
1	Typhoid and paratyphoid fevers	1	1												1							
2	Plague																					
3	Scarlet fever																					
4	Whooping cough	2		2			1	1	1													
5	Diphtheria																					
6	Tuberculosis of the respiratory system	89	55	23	3	6					2	9	15	4	9	20	15	14	1			
7	All other forms of tuberculosis	6	3	1	1	1						1	1		2		1					
8	Malaria																					
9	Syphilis	17	8	4	2	3	1	1				1	2	2	1	6	1	2	1			
10	Influenza	7	6	1			1	1					2			1		2	1			
11	Smallpox																					
12	Measles																					
13	Typhus fever																					
14	Other infectious or parasitic diseases	11	3	5	2	1	1	4	1		1	1					2	1				
15	Cancer and other malignant tumors	582	294	276	9	3			2			4	15	20	39	138	184	133	44	2		
16	Nonmalignant tumors or tumors of unspecified nature	11	5	6									2		2	6						
17	Chronic rheumatism and gout	4	1	3												1	2		1			
18	Diabetes mellitus	130	40	84	2	4		1	1		1		5	1		23	36	52	10			
19	Chronic or acute alcoholism	4	3	1								1		1		1	1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	33	19	14			4	5	4		1		2		3	3	7	7	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	7	3	3	1								1		1	3		1	1			
22	Intracranial lesions of vascular origin	303	135	156	5	7							3	7	12	54	87	83	53	4		

Rate per 1,000 Population, 10.0.

TABULATION OF DEATHS IN PASSAIC CITY FOR 1947, 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	629	333	262	20	14	47	51	1	6	4	15	27	20	26	119	167	131	58	4	...	
1	Typhoid and paratyphoid fevers																					
2	Plague																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria																					
6	Tuberculosis of the respiratory system	18	14	2		2						1	1	1	1	7	2	4	1			
7	All other forms of tuberculosis	1			1							1										
8	Malaria																					
9	Syphilis	10	4	3	1	2	1	1					1	1		6		1				
10	Influenza	2	2					1	1													
11	Smallpox																					
12	Measles																					
13	Typhus fever	2																				
14	Other infectious or parasitic diseases			2							1											
15	Cancer and other malignant tumors	109	52	55	1	1						3	2	6	9	24	45	15	5			
16	Nonmalignant tumors or tumors of unspecified nature	3	2	1								1				2						
17	Chronic rheumatism and gout																					
18	Diabetes mellitus	18	6	10		2					1		1			3	7	5	1			
19	Chronic or acute alcoholism	1	1														1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	10	6	4			3	3					1		1	2		2	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1															1				
22	Intracranial lesions of vascular origin	67	27	35	2	3							1	2	2	11	24	16	10	1	...	

Rate per 1,000 Population, 10.2.

TABULATION OF DEATHS IN PATERSON FOR 1947, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														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	90 and Over	
	ALL CAUSES	1688	862	745	42	39	70	83	6	4	7	24	52	47	76	266	383	483	227	30	...
1	Typhoid and paratyphoid fevers	1	1												1						
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	2		2			1	1	1												
5	Diphtheria	47	27	11	5	4					1	6	8	1	3	11	9	8			
6	Tuberculosis of the respiratory system	4	2	1		1					1		1		1		1				
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	6	3	1		1						1	1	1	1		1		1		
10	Influenza	4	3	1									1			1		1		1	
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	7	3	1	2	1	1	3	1			1					1	1			
15	Cancer and other malignant tumors	275	133	133	7	2			1		1		9	7	22	63	79	74	18	1	
16	Nonmalignant tumors or tumors of unspecified nature	5	1	4									1		1	3					
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	70	21	46	1	2		1					2	1		13	24	27	2		
19	Chronic or acute alcoholism	3	2	1										1		1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	13	8	5			1	2	2				1		1		5	2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	1	1	1								1		1	1					
22	Intracranial lesions of vascular origin	145	63	76	3	3							1	4	9	25	32	47	25	2	

23	Other diseases of the nervous system and sense organs	12	5	7	.....	1	1	.....	.....	1	1	1	3	2	2	1	.....
24	Diseases of the heart	624	343	266	11	4	1	1	1	2	2	8	16	21	88	157	212
25	Other diseases of the circulatory system	70	34	35	.....	1	.....	.....	.....	.....	1	1	.....	4	9	23	104
26	Bronchitis	5	3	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	2	27
27	Pneumonia and bronchopneumonia	61	32	25	2	2	6	9	.....	.....	3	1	1	1	9	7	19
28	Other diseases of the respiratory system	7	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2	9
29	Diarrhea and enteritis	3	1	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....	1
30	Appendicitis	27	14	12	.....	1	.....	.....	.....	.....	1	2	3	10	6	5	.....
31	Diseases of the liver and biliary passages	28	18	9	.....	1	.....	1	.....	.....	1	2	3	4	8	8	1
32	Other diseases of the digestive system	74	36	29	1	8	.....	.....	.....	.....	2	1	7	3	14	17	19
33	Nephritis	10	9	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	5	11
34	Other diseases of the urinary and genital systems	3	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	2
35	Puerperal infection	3	1	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	3	1	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	60	34	21	.....	5	58	59	.....	1	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	7	.....	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	3
39	Senility, old age	15	9	5	1	.....	.....	.....	.....	.....	1	4	.....	1	4	4	.....
40	Suicide	3	2	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
41	Homicide	19	14	4	1	.....	.....	.....	.....	.....	3	1	1	.....	4	3	4
42	Automobile accidents (all motor-driven road vehicles)	68	33	28	5	2	2	5	1	1	2	1	1	2	3	5	16
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	15
44	Causes of death ill-defined, unknown, or unspecified	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	3

Estimated Population, 150,000.

Total Resident Deaths, 1,688.

Rate per 1,000 Population, 11.3.

TABULATION OF DEATHS IN SALEM COUNTY FOR 1947, 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	525	254	180	50	41	52	62	3	1	4	21	13	14	26	78	102	114	78	9	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1		1			1	1													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	15	6	2	2	5		2			1	4		2	3	1	2				
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	6	3		1	2	1	1					1	1		2		1			
10	Influenza	1			1										1						
11	Smallpox																				
12	Measles																				
13	Typhus fever	1	1													1					
14	Other infectious or parasitic diseases	6	4	1	1						1		2	1							
15	Cancer and other malignant tumors	65	29	33	1	2			1					1	2	5	12	19	15	8	2
16	Nonmalignant tumors or tumors of unspecified nature	1	1															1			
17	Chronic rheumatism and gout	1	1																		
18	Diabetes mellitus	18	5	10		3										5	5	6	2		
19	Chronic or acute alcoholism																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	7	3	3	1		1	1			1	1				1	1	1	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord																				
22	Intracranial lesions of vascular origin	50	18	18	10	4								1	2	8	12	13	13	1	

Rate per 1,000 Population, 11.6.

TABULATION OF DEATHS IN SOMERSET COUNTY FOR 1947, 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	851	459	366	12	14	63	71	5	4	4	21	22	26	33	143	176	196	119	31	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	19	9	7	2	1						4	1		1	5	6	1		1	
7	All other forms of tuberculosis	1		1													1				
8	Malaria																				
9	Syphilis	8	6		1	1	2	2						1		2	3				
10	Influenza	1	1								1										
11	Smallpox																				
12	Measles																				
13	Typhus fever																				
14	Other infectious or parasitic diseases	2	2			1	1	1										1			
15	Cancer and other malignant tumors	129	67	60	1	1		1				4	4	8	3	34	37	30	7	1	
16	Nonmalignant tumors or tumors of unspecified nature	2	1	1											1				1		
17	Chronic rheumatism and gout	2		2													1		1		
18	Diabetes mellitus	33	10	21	1	1		1				1	1	1		9	8	8		4	
19	Chronic or acute alcoholism	3	1	1	1								1	1	1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	6	4	2							1		2			2	1				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1													1					
22	Intracranial lesions of vascular origin	96	46	47	1	2		1				2	1	3	2	12	18	31	19	7	

Rate per 1,000 Population, 10.0.

TABULATION OF DEATHS IN SUSSEX COUNTY FOR 1947, 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	362	203	157	1	1	20	22	2	3	3	1	17	8	12	48	87	103	48	8	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	1		1			1	1													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	7	5	2									1		1	2	3				
7	All other forms of tuberculosis																				
8	Malaria																				
9	Syphilis	2	1	1									2								
10	Influenza	1	1						1												
11	Smallpox																				
12	Measles																				
13	Typhus fever	4	2	2				1					1				1				
14	Other infectious or parasitic diseases																				
15	Cancer and other malignant tumors	57	28	29									2	3	2	11	17	17	5		
16	Nonmalignant tumors or tumors of unspecified nature	1		1									1								
17	Chronic rheumatism and gout																				
18	Diabetes mellitus	12	2	10											1	1	5	4	1		
19	Chronic or acute alcoholism	1	1														1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	2	2						1									1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord																				
22	Intracranial lesions of vascular origin	36	20	16									1	1	1	3	8	17	3	2	

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Rate per 1,000 Population, 12.1.

TABULATION OF DEATHS IN UNION COUNTY FOR 1947, 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	3416	1738	1434	116	128	225	200	13	19	17	79	105	115	170	616	769	775	424	54	...
1	Typhoid and paratyphoid fevers .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Scarlet fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Whooping cough	4	...	4	...	...	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Diphtheria	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
6	Tuberculosis of the respiratory system	87	46	18	14	9	...	1	...	1	2	19	8	9	3	21	13	9	1	...	...
7	All other forms of tuberculosis	3	...	2	...	1	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...
8	Malaria .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	Syphilis	11	7	1	2	1	1	1	...	...	...	...	...	...	2	6	2	...	...	...	...
10	Influenza	7	3	3	...	1	...	1	...	1	...	1	...	1	1	2	...	...	...	...	...
11	Smallpox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Measles .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Typhus fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Other infectious or parasitic diseases	20	11	7	2	...	2	2	...	...	...	2	1	3	3	3	3	1	...	...	...
15	Cancer and other malignant tumors	591	301	254	15	21	2	4	...	1	1	6	9	27	41	138	168	131	60	5	...
16	Nonmalignant tumors or tumors of unspecified nature	13	6	5	...	2	...	...	...	...	...	...	2	1	3	...	2	5	...	...	...
17	Chronic rheumatism and gout	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...
18	Diabetes mellitus	114	38	68	2	6	...	...	...	...	...	2	1	2	4	19	44	29	13	...	...
19	Chronic or acute alcoholism	3	2	1	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	29	15	11	...	3	2	3	2	3	2	1	1	1	2	3	7	3	1	...	...
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	9	6	3	...	...	1	1	...	1	...	...	...	...	...	2	2	3	...	...	...
22	Intracranial lesions of vascular origin	316	128	177	3	8	1	2	1	...	...	...	8	7	13	53	87	93	44	8	...

23	Other diseases of the nervous system and sense organs	22	9	13	.....	.....	1	1	.....	4	2	1	2	2	3	4	1	.....
24	Diseases of the heart	1143	631	445	32	35	.....	2	1	10	25	28	55	224	281	322	167	28
25	Other diseases of the circulatory system	104	44	54	4	2	.....	.....	.....	.....	2	2	4	10	17	34	31	4
26	Bronchitis	8	6	2	.....	1	3	1	.....	.....	.....	.....	.....	2	1	1	.....	.....
27	Pneumonia and bronchopneumonia	118	60	44	7	7	15	17	1	1	3	4	8	3	9	20	24	25
28	Other diseases of the respiratory system	20	13	6	.....	1	.....	.....	2	1	1	2	1	2	4	7	.....	3
29	Diarrhea and enteritis	13	7	6	.....	6	8	.....	.....	.....	.....	.....	.....	2	2	.....	1	.....
30	Appendicitis	10	8	2	.....	.....	.....	.....	1	1	.....	1	1	.....	1	2	2	1
31	Diseases of the liver and biliary passages	70	37	32	.....	1	.....	.....	.....	.....	4	3	6	23	18	11	4	1
32	Other diseases of the digestive system	76	44	21	7	4	.....	1	.....	3	3	5	3	24	15	19	3	.....
33	Nephritis	161	68	75	7	11	.....	2	1	4	6	4	4	35	33	38	31	3
34	Other diseases of the urinary and genital systems	27	20	5	1	1	.....	.....	.....	.....	1	.....	1	4	6	6	9	.....
35	Puerperal infection	2	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	8	.....	8	.....	.....	.....	.....	.....	2	5	1	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	5	1	3	.....	1	.....	.....	1	.....	.....	.....	3	.....	1	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	192	95	81	6	10	183	189	1	.....	1	.....	1	.....	.....	.....	.....	.....
39	Senility, old age	6	2	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	2
40	Suicide	42	29	13	.....	.....	.....	.....	1	.....	3	7	3	5	6	11	4	2
41	Homicide	8	1	2	5	.....	.....	.....	1	.....	3	.....	2	2	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	50	39	10	1	.....	5	1	1	3	7	3	1	.....	10	12	5	2
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	104	51	47	6	.....	6	9	1	4	3	6	6	1	6	12	11	24
44	Causes of death ill-defined, unknown, or unspecified	16	9	3	2	2	4	6	.....	.....	.....	2	1	1	2	2	2	.....

Estimated Population, 371,583.

Total Resident Deaths, 3,416.

Rate per 1,000 Population, 9.2.

TABULATION OF DEATHS IN ELIZABETH FOR 1947, 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	1210	626	524	24	36	73	89	2	4	6	31	43	41	48	233	291	266	141	15	...
1	Typhoid and paratyphoid fevers																				
2	Plague																				
3	Scarlet fever																				
4	Whooping cough	3		3			2	3													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	30	18	7	1	4					1	5	3	5		10	5	1			
7	All other forms of tuberculosis	1				1					1										
8	Malaria																				
9	Syphilis	7		1	1	1	1	1							1	4	1				
10	Influenza	2	1	1				1				1									
11	Smallpox																				
12	Measles																				
13	Typhus fever																1	1			
14	Other infectious or parasitic diseases	6	3	2	1				1					3							
15	Cancer and other malignant tumors	201	107	86	2	6		1			1	2	5	12	9	51	60	43	17		
16	Nonmalignant tumors or tumors of unspecified nature	3	2	1													2	1			
17	Chronic rheumatism and gout	1																			
18	Diabetes mellitus	45	15	29	1							1			1	7	17	12	7		
19	Chronic or acute alcoholism	2	2												1	1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	13	4	6		3	1	2		1	1					1	5	3			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1		1														1			
22	Intracranial lesions of vascular origin	117	51	63	1	2		1	1				1	2	2	26	36	32	14	2	

Rate per 1,000 Population, 10.0.

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