

SIXTY-NINTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1946



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DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY

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E. W. SMILLIE, V. M. D.....Princeton
MARTHA W. TYNDALL, M. D.....Westfield

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

EDMUND R. OUTCALT, *Deputy Secretary*
(Deceased February 26, 1946)

CHARLES M. CALLAHAN, *Deputy Secretary*
(Appointed March 12, 1946)

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

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1946.

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

As required by law, I have the honor of submitting herewith the Annual Report of the Department of Health, together with accompanying important documents, for the fiscal year ending June 30, 1946.

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

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1946.

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

GENTLEMEN—I have the honor to submit herewith the Annual Report of the Department for the year ending June 30, 1946. The reports of the Bureau and Division heads will give comprehensive accounts of the activities of the Department during the year.

Respectfully submitted,

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

Report of the Director of Health

By J. LYNN MAHAFFEY, M. D.

Victory over Japan and the beginning of the atomic age marked the period of the fiscal year July 1, 1945 to June 30, 1946. Many of New Jersey's war-time health problems continued through the first post-war months. This was a period of transition from war to peace, and while the transition was not by any means complete at the end of the year, the prospects of having more trained personnel and better equipment and facilities to meet the post-war health problems of New Jersey were much better than at the same time in 1944. The return of trained health personnel, of physicians, nurses, dentists, and other medical and public health workers from the Armed Forces, began during this period. Old faces returned to their accustomed posts with new experiences, new training, new techniques, and a fresh approach to the old and new health problems.

The first post-war months witnessed the continuance of our excellent health record which had been maintained throughout the war years. With personnel and equipment gradually becoming available, plans made during the war for the expansion of health services in New Jersey were being put into operation. Reorganization of the New Jersey State Department of Health was begun following the plan adopted by the State Board of Health in April, 1945. The Bureau of Preventable Diseases was established and the following Divisions which had formerly been designated as Bureaus were included in the Bureau of Preventable Diseases: Division of Venereal Disease Control, Division of Tuberculosis Control, Division of Maternal and Child Health, Division of Industrial Health, Division of Dental Health, Division of Health Education, Rabies Control Program, Negro Health Program, and the Advisory Public Health Nurse. The Division of Health Education was established on July 1, 1945.

With the expansion of the Department the already over-crowded quarters were entirely inadequate and it was necessary to rent additional quarters in other buildings removed from the State House. This served to further scatter the Department and to increase the difficulty of efficient organization and administration of the work of the Department.

DISEASE RATES LOW

Communicable diseases were considerably lower than for the preceding two years. Diphtheria cases remained the same, while measles showed the lowest incidence since 1918. Meningitis cases were less than half of those in 1944. The poliomyelitis epidemic, which occurred widely, brought the number of cases to 952, the largest number since 1931. There were 102 deaths, also the largest number since 1931. Tuberculosis showed a slight drop. Whooping cough cases showed a significant increase over the preceding year and there were 24 deaths, 14 in infants and nine in the 1-4 year age group. This indicates a need for strengthening our immunization program for the prevention of whooping cough in infants and children.

There were 1,412 cases of malaria reported, of which 15 were civilians; five of these were apparently infected in New Jersey. The joint plan of control of the Department of Health and the Department of Entomology of the New Jersey State Experiment Station was enforced throughout the year. There was a drop in the cases of trichinosis from 53 to 26, and there was at the same time a significant drop in the amount of pork available for consumption.

BIOLOGICALS DISTRIBUTED

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 distributed to physicians and also to local boards of health for use in clinics through 64 stations throughout the State. Anti-rabic vaccine (human) was also distributed through 11 key stations.

Immune serum globulin as a preventive of measles was made available without charge by the American Red Cross and distributed by the Department. Pneumonia serum for the treatment of patients financially unable to pay for the material was furnished on request.

A rabies quarantine was instituted in Bergen County as a result of an increase in the incidence of rabies among dogs in that county. It is anticipated that the three mobile units now on order will be received during the coming year and will serve effectively in the Rabies Control Program.

INDUSTRIAL CHEST X-RAY SURVEYS INCREASED

The work of the Tuberculosis Control Division in conducting mass chest X-ray surveys in industries was accelerated during the year. It is anticipated that with the delivery of more equipment and the appointment of additional trained personnel the program will be expanded beyond its present size during

the coming year. Two transportable X-ray units were in operation during the last year, completing 28 surveys in which 38,786 persons received free chest X-rays. Delivery of a trailer X-ray unit complete from dressing room to dark room is anticipated during the coming year and will be used in conducting surveys of plants with fewer than 500 persons. Since the inception of this program in August, 1942, 82 industrial surveys have been completed in 19 of the 21 counties of the State. 153,537 persons have received free chest X-rays.

Follow-up of persons having doubtful or positive findings is made through the Bureau of Local Health Administration, which transmits the reports to local health departments and other community agencies for investigation. As in previous years, follow-up of persons reported to show evidence of infection upon examination for Selective Service was continued. Reports are received regularly from veterans' hospitals of cases of tuberculosis in veterans, and these are followed up in the same manner.

PENICILLIN THERAPY FOR SYPHILIS AND GONORRHEA

The general application of penicillin therapy in both syphilis and gonorrhoea during the year may well be the most significant forward step in the control of venereal diseases in recent years. During the year, 1,097 cases of early syphilis among civilians were hospitalized and treated with penicillin. An additional 689 persons were treated at the Special Rapid Treatment Center established at Medical Center, Jersey City, for men being separated from military service. About one-third of these were New Jersey residents.

Ambulatory treatment of cases of gonorrhoea with penicillin made it possible to withdraw the hospitalization care for such cases. The single injection treatment of gonorrhoea with penicillin in a base of peanut oil and beeswax (POB) was initiated on a limited basis and it is anticipated that this single treatment method will be adopted generally for gonorrhoea. It is probable that a similar treatment program for syphilis, using one injection daily and (POB) for eight or nine days, will be instituted. This program would have been impossible without the use of Federal funds.

The role of the Venereal Disease Clinic will be greatly changed as the penicillin treatment program is expanded. Eventually it will be used as a diagnostic, case finding and test-for-cure clinic with treatment centered in the office of the private physician and the local hospital.

The follow-up program of military contacts of cases discharged from the service and of cases found as a result of examination for Selective Service was continued.

MATERNAL AND INFANT DEATH RATES LOW

The maternal mortality rate of 1.5 per 1,000 live births was the lowest rate ever achieved in New Jersey, and the infant mortality rate of 32 per 1,000 live births was next to the lowest ever recorded in the State. The home delivery nursing service, which provides a registered nurse to aid physicians at home deliveries where needed, was continued and the service was provided for 159 home deliveries. The program of assistance for wives of servicemen and their infants was continued with the co-operation of some 2,000 physicians and the hospitals throughout the State. During 1945, 8,962 maternity cases were hospitalized to receive care and 1,517 infants received medical and hospital care. From the time the plan became effective in April, 1943, to December 31, 1945, 24,756 maternity cases and 3,028 pediatric cases were authorized to receive care in New Jersey.

The work of the Negro Health Program was continued with community chest X-ray surveys, blood testing surveys, immunization clinics in rural schools, and health education.

DENTAL HEALTH IMPROVEMENT SHOWN

The Dental Health Program of the Department which began in 1939 was continued through the year and it is now possible to demonstrate the results achieved during this seven-year period. The number of school districts with preventive dental treatment programs increased from 99, or 18%, of the total school districts in New Jersey in 1940, to 279, or 50%, of the total school districts in 1945. In one area studied, the number of defective teeth per pupil was 5.4 before inauguration of a preventive dental treatment program. At the end of five years, the number of defective teeth per pupil had been reduced to 4.1. Where preventive dental programs were not instituted, the dental conditions worsened, and in one community having a high economic level but no preventive dental program in the schools, the number of defective teeth per child increased from 3 to 3.5 from 1940 to 1945.

LABORATORY SERVICES INCREASED

Demands for laboratory services continued to increase and while all requests were met, an additional burden was placed upon already crowded facilities. There was, for example, an increase of 45,000 in the number of requests for serologic tests for syphilis alone during the first six months of 1946 as compared with the previous six months. Improved techniques and new procedures were instituted in the bacteriological laboratory and an evaluation study by the United States Public Health Service of the serologic tests of the laboratory gave the best rating which the Department has ever received.

The passage of the Bread Enrichment Act which is to be enforced by the Department will require additional laboratory personnel and equipment.

The manufacture of fluorine in certain South Jersey and near-by Pennsylvania plants resulted in the elimination of fluorine gas by these plants into the atmosphere. Special investigations were made by Department representatives and special laboratory analyses were made in the laboratory of the Bureau of Chemistry. No menace to public health was found and control measures were instituted by the companies.

FLUORINE TESTS OF WATER INSTITUTED

Lack of critical materials and the continued man-power shortage prevented the construction of new sewage treatment plants and extensive alterations or additions to existing plants, as well as large public water supply facilities. Construction projects approved during the fiscal year were valued at about \$2,000,000, which was the same as 1944-1945 but considerably less than in pre-war years.

The Bureau of Engineering and Sanitation instituted the collection of samples from all public potable water supplies as well as from certain surface supplies for analysis of the fluorine content. None of the surface water supplies exceeded the maximum fluorine content established as standard by the United States Public Health Service, and 99% of the potable water supplies delivered water with a fluorine content less than the maximum limit. Only three public water supplies, all in South Jersey, exceeded the maximum limit.

The Licensing Act approved May 6, 1946, requires that superintendents or operators of public water treatment plants, public sewage treatment plants and public water supply systems shall be licensed by the Department. A change was made in the regulations regarding public water supplies so that a public water supply system is now a system which supplies 20 or more dwellings.

Contrary to expectations, industrial expansion has increased since the end of the war and a number of industries have been located on potable water sheds, with a resultant increase in the problem of adequate and safe disposal of industrial wastes. The Department continued its activities toward control of stream pollution in the Delaware and in other watersheds.

The New Jersey ship canal which has been proposed for a number of years was actively considered during the last year. The engineers of the Department instituted a special study of the effect which the diversion of water from the Raritan River for the canal would have on the pollution control in the Raritan. The conclusions were that diversion of water from the Raritan by means of a dam at Sayreville would be detrimental to the

solution of the pollution problem in the Raritan. A counter-proposal was made by the United States Army Engineers that water be diverted from the Delaware River by means of an impounding reservoir in the upper reaches of the Delaware.

INDUSTRIAL HEALTH SURVEYS

The Division of Industrial Health provided two types of services to New Jersey industries during the year: (1) In-plant environmental engineering (assistance with plant lighting, ventilation, control of noise, dust fumes, gases, etc.), and (2) medical and nursing assistance and consultation on plant health problems and activities. During the last year 282 projects were completed, of which 196 were of the first type and 86 of the latter. It is anticipated that additional medical and nursing personnel will be available during the coming year for further expansion of these activities. An industrial health laboratory was operated, making special studies during the year.

Community-wide industrial health surveys were initiated in six communities in cooperation with the local health departments.

A report on medical care for agricultural migrant workers was completed and presented to the Migrant Labor Board of the New Jersey State Department of Labor. It resulted in a positive program of providing medical care for this group.

Venereal disease clinics for migrant farm workers were operated as in past years and chest X-ray surveys were made of such groups.

FOOD SHORTAGES ENCOURAGE FRAUDS

Food shortages continued and in some instances were even greater than during the war years, and there was a tendency to substitute inferior or worthless substances for the genuine article. Mineral oil was found to be substituted for vegetable oils in mayonnaise and salad dressings, and mineral oil was found to be sold in containers marked "Olive Oil." Large stocks of such articles were embargoed. Added water was found in an appreciable number of milk samples as a result of the milk shortage. The shortage of meats brought about an increase in the number of applications for slaughterhouse licenses, and an inspection program was carried out.

The heavy floods of the Passaic River in the Paterson area caused great damage to foods and drugs in retail and wholesale establishments and was considered as probably the greatest flood damage of these commodities in the history of New Jersey. Inspection of damaged foods, drugs and cosmetics was instituted immediately by agents of the State Department of Health and local and federal representatives. Damaged goods were em-

bargoed and those which could not be salvaged safely were destroyed under supervision.

HEALTH EDUCATION PROGRAM ORGANIZED

The Health Education Division was organized during the year and a start was made toward a complete health education program for the Department built around a field staff of community health educators to be placed in district and local health offices. Basic health education services for the Department, for local health departments and for health and allied agencies were organized and plans made for expansion.

A three-day Public Health Institute was conducted at the New Jersey College for Women in cooperation with the New Jersey Federation of Women's Clubs and other organizations interested in better public health, and was attended by over 100 delegates. This Institute was followed by a number of local institutes devoted to better local health services.

Summer courses given at Rutgers University were attended by 30 persons, and nine winter courses were completed by 122 students.

The field service provided by the Bureau of Vital Statistics, which provides consultation service and field visits for local registrars, county clerks, hospital authorities and others concerned with the registration of vital statistics, was expanded during the year. The Bureau has passed the peak of war-time demands for certified copies of vital records.

IMPROVEMENT OF LOCAL HEALTH SERVICES

Means of improving local health services throughout the State have been under study by health officials during the war years; with the end of the war, activities to this end have been accelerated. A number of committees were at work at the end of the year preparing to make detailed and specific recommendations of legislative and administrative means for improving local health services in New Jersey. At the end of the fiscal year, the provision of adequate local health services for the people of New Jersey was the outstanding problem confronting health officials.

Report of the Division of Personnel, Administration Records and Accounts

For the Year Ending June 30, 1946

By CHARLES M. CALLAHAN, Chief

The State Department of Health at its meeting held on July 10, 1945, elected Frederick P. Lee, M. D., as President, and Louis P. Booz, C. E., as Vice-President, for the fiscal year ending June 30, 1946.

Arthur B. Peacock, M. D., of Columbus, and Mr. L. Van D. Chandler, of Hackensack, were appointed to membership on the Board by the Governor and confirmed by the Senate on May 21, 1945, for the four-year term expiring June 30, 1949.

The following committees were appointed by the President during the year:

Committee on Budgets and Salaries of Personnel: Mr. Booz, Chairman; Miss MacNaughton; Dr. Fischelis; Mr. Lawrence; Dr. Peacock. Appointed September 11, 1945.

Committee to Set Up Definite Plans and Standards for Approval of Laboratories: Dr. Fischelis, Chairman; Mr. Chandler; Mr. Osborne. Appointed September 11, 1945.

Organization Committee: Miss MacNaughton, Chairman; Dr. Schweikhardt; Mr. Booz; Dr. Tyndall. Appointed October 9, 1945.

Legislative Committee: Mr. Chandler, Chairman; Dr. Alexander; Mr. Lawrence; Dr. Peacock. Appointed October 9, 1945.

Committee to Study Licensing and Inspection of Slaughterhouses: Dr. Smillie, Chairman; Mr. Lawrence; Dr. Peacock. Appointed July 10, 1945.

Committee on Medical Care: Dr. Peacock, Chairman; Dr. Tyndall; Dr. Alexander; Dr. Fischelis. Appointed October 13, 1945.

Mental Hygiene Committee: Miss MacNaughton, Chairman; Mr. Osborne; Dr. Tyndall. Appointed November 19, 1945.

Committee on Uniform Milk Inspection Code: Mr. Lawrence, Chairman; Mr. Osborne; Dr. Lee.

Committee to Serve As Liaison Group Between The State Board of Health and New Jersey Health Officers' Association: Mr. Osborne, Chairman; Dr. Alexander; Dr. Peacock; Mr. Chandler, Dr. Smillie. Appointed May 14, 1946.

The Department suffered a severe loss in the passing on February 26, 1946, of Edmund R. Outcalt, Chief, Bureau of Administration and Deputy Secretary to the State Board of Health. At the Department's meeting held on March 12, 1946, Charles M. Callahan was appointed as Mr. Outcalt's successor. By subsequent Board action the title of the Bureau of Administration was changed to Division of Personnel, Administration Records and Accounts.

BOARD OF EXAMINERS AND EXAMINATIONS

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

Patrick J. Monaghan, Newark; James J. Hagan, Jersey City; and Samuel L. Salasin, M. D., Atlantic City, together with John E. Bacon, C. K. Blanchard and L. M. Lounsbury, D. V. M., of the State Department of Health, were reappointed as members of the Board of Examiners of Health Officers and Inspectors for the year beginning March 1, 1946. The Board reorganized by the election of Samuel L. Salasin, M. D., as President, and John E. Bacon as Secretary.

During the year there were filed with the Department 120 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, 18; Sanitary Inspector, First Class, 22; Sanitary Inspector, Second Class, 20; Plumbing Inspector, 20; Veterinary Meat Inspector, 2; Milk Inspector, 2; Sanitary Inspector, Third Class; Food and Drug Inspector, and Lay Meat Inspector, none.

ANNUAL CONFERENCE

The 35th Annual Conference of State and Local Health Officials of New Jersey was held in the State House, Trenton, on February 15, 1946. The program of the Conference follows:

Morning Session, 10:30 A. M.

Vital Statistics—Round Table Discussion. Leader—Walter R. Scott, State Registrar of Vital Statistics.

Children's Boarding Homes. Day Care Centers and Nursery Schools. Carl Weigle, M.D., and Mary Sullivan, R.N., Division of Maternal and Child Health.

Afternoon Session, 2:00 P. M.

J. Lynn Mahaffey, M.D., Director of Health, presiding
Insect Control with D.D.T. Sheldon L. Lang, S.A. Engineer R, U. S. Public Health Service.

Some Local Health Department Accomplishments. F. P. Lee, M.D., Paterson. F. J. Osborne, East Orange.

Five-minute reports by nine Health Officers. C. A. Kientz, Jr., North Arlington. Edward Gerner, Orange. C. M. Bowen, Regional Health Commission No. 1, Bergen County. C. T. Pomeroy, Montclair. Erwin Goemann, Ridgefield Park.

Influenza Vaccine. John L. Rice, M.D., and Herold K. Cox, M.D., Lederle Laboratories, Inc.

Glimpses Into the Futures. L. S. Snegireff, M.D., Dr. P.H. Cancer Control. R. T. Fisher. Health Education. J. C. Radcliffe. Industrial Health. New Jersey State Department of Health.

Evening Session, 8:00 P. M.

Annual Meeting—New Jersey Health Officers' Association

LEGISLATION

The following legislation of interest to health officials was enacted by the Legislature during the year 1946:

S-2, *Chap. 65, Proctor.* Permits municipalities to extend sewer service to other municipalities, whether or not serving municipalities furnish water to receiving municipalities.

S-57, *Chap. 86, Pascoe.* Requires flour and bread on sale to be vitamin enriched.

S-121, *Chap. 253, Pyme.* Broadens admission to Glen Gardner Sanatorium to include diseases of a respiratory nature, whether curable or not.

- S-198, *Chap. 275, Lewis*. Requires notification of and investigation by coroner of sudden or violent deaths in counties having no medical examiner or county physician.
- S-203, *Chap. 304, Lewis*. Requires notification of and investigation by county physicians of sudden or violent deaths in counties having no county medical examiner.
- S-209, *Chap. 185, Summerill*. Requires 72 hours to elapse between application and issuance of marriage licenses; permits Common Pleas Courts to waive such period; requires court, as well as parental, consent in marriage of minors.
- S-227, *Chap. 231, Littell*. Requires State Health Department to certify to county supervisors of veterans' interment names and burial places of veterans buried in such counties between 1936 and 1944.
- S-228, *Chap. 232, Littell*. Requires State Health Department to submit monthly reports to county supervisors of veterans' interment of veterans' burials in such counties; prescribes penalties for cemeteries or undertakers failing to furnish burial records to supervisors.
- S-262, *Chap. 138, Hannold*. Permits counties and municipalities to create sewerage authorities to construct and operate sewage disposal systems; permits authorities to issue bonds and to use system's revenues to retire such bonds.
- S-283, *Chap. 295, Summerill*. Provides for licensing of water treatment plant superintendents by State Health Department.
- A-5, *Chap. 123, W. H. Jones*. Permits Boards of Freeholders in first and second-class counties to create sanitary sewer districts.
- A-69, *Chap. 22, Huhn*. Permits Boards of Freeholders to maintain blood banks.
- A-70, *Chap. 223, Reiffin*. Constitutes Boards of Freeholders, or committee of board, as board of managers of county hospitals for communicable diseases, in first and second-class counties.
- A-73, *Chap. 26, Harris*. Revises procedure for recording births of persons not previously recorded.
- A-149, *Chap. 211, Mischlich*. Permits local Boards of Health to enforce adequate heating standards in buildings occupied or designed to be occupied as dwellings for more than two families.
- A-223, *Chap. 107, Greenbaum*. Requires that individual drinking straws in public places be wrapped.
- A-229, *Chap. 172, Mathis*. Requires operators of commercial swimming pools to maintain adequately trained personnel, life saving and resuscitation equipment.
- A-376, *Chap. 137, R. G. Howell*. Appropriates \$15,000 to State Agricultural Experiment Station to study effect of industrial fumes on agricultural lands and products.

The following bills were introduced in the Legislature, but had not become laws at the time this report was submitted:

- S-7, *Armstrong*. Requires commodity packages to be marked with net weight or other net quantity.
- S-8, *Armstrong*. Requires sale of meats and poultry by avoirdupois net weight.
- S-14, *Mathis*. Limits taking of clams and oysters to 100 per day.
- S-95, *Stanger*. Prescribes qualifications for veterans who practiced medicine in war service to be licensed as physicians and surgeons in New Jersey.
- S-169, *Littell*. Forbids indemnities to be paid for tuberculous cattle infected by imported animal, if such animal is not subjected to tuberculosis test within 60 days after entry.
- S-172, *Littell*. Requires sale of bulk ice cream by net weight.
- S-197, *Lewis*. Requires records of autopsies or chemical analyses of bodies be filed with Boards of Freeholders for public inspection.
- S-235, *Summerill*. Fixes professional standards for local health inspectors of foods, drugs, milk and meat.
- S-242, *Proctor*. Permits creation of County Water Commissions of five members to acquire and construct water systems; permits municipal or private water systems to be acquired; grants power of condemnation to such Commissions; permits Commissions to issue bonds and to pledge revenues from operation of systems to retirement of bonds.
- S-245, *Farley*. Permits registered assistant pharmacists to take three examinations in practical pharmacy and laboratory work within two years after passage of present bill, or within two years after discharge from military or naval service, for registration as pharmacist.
- S-258, *Summerill*. Requires developers of real estate subdivisions to obtain State Health Department permits covering adequacy of water and sewage systems.
- A-45, *Reiffin*. Prescribes training requirements for license to practice medicine and surgery.
- A-47, *W. H. Jones*. Provides reorganization of State Health Department with State Commissioner of Health at \$15,000 annually, required to be physician; provides Public Health Council of seven members.
- A-171, *Shershin*. Creates Bureau of Cancer Control in State Health Department; appropriates \$250,000.
- A-176, *Thomas*. Fixes uniform sizes for containers in which flour is sold.
- A-178, *Widhall*. Permits persons other than physicians to be superintendents of county hospitals for communicable diseases.
- A-246, *Mathis*. Defines "pharmacy" under act providing registration for such establishments; includes pharmacies in hospitals, health clinics and public and private institutions for treatment of disease.
- A-258, *Mischlich*. Governs issue of burial and removal permits for human bodies.

DEPARTMENT OF HEALTH

A-259, *Mischlich*. Limits nature of advertising by licensed chiroprodists.

A-262, *Mischlich*. Forbids corporations formed for primary purpose of chiropody practice, to continue such practice; forbids persons to practice chiropody as officers of such corporations; forbids persons to practice chiropody under trade names.

APPROPRIATIONS

During the fiscal year ending June 30, 1946, there was appropriated through state and federal sources to the New Jersey State Health Department the sum of \$2,511,314.22.

The State Legislature appropriated \$678,481.31 and the following sums were received from the Federal Government:

Social Security Act, Title V (U. S. Children's Bureau)	\$92,576.79
Emergency Maternity and Infant Care Program (U. S. Children's Bureau)	1,112,752.73
General Health Fund (U. S. P. H. S.)	249,239.45
Veneral Disease Control Act (U. S. P. H. S.)	175,561.63
Rapid Treatment Facilities (U. S. P. H. S.)	82,060.00
Tuberculosis Control (U. S. P. H. S.)	120,642.31

Total federal funds \$1,832,832.91

In addition to the foregoing appropriations, \$81,799.15 was received from dog registration fees, \$28,171.08 of which was used for rabies control. In accordance with the provisions of Chap. 151, P. L. 1941, the sum of \$53,270.95 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, 1946

Source	Amount
Analyses of water samples	\$3,573.00
Audiometer rental	230.00
Laboratory receipts	3.00
Licenses—cold storage	600.00
“ goat milk	163.38
“ ice cream	5,720.00
“ milk plant	17,000.00
“ narcotics	350.00
“ sewage and water plant operators	2,289.00
Penalties—violations of Food and Drug Laws	4,779.56
“ Dog Control Act	532.00
Searches of vital certificates	22,754.55
Miscellaneous (engineering and sanitation copies for certification)	15.00
Total revenue transmitted to the State Treasury	\$58,009.49

DIV. OF PERSONNEL, ADM., RECORDS & ACCOUNTS 21

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1946
STATE FUNDS—CENTRAL ADMINISTRATION BUREAU

	Personnel, Adm. Records and Accounts	Bacteri- ology	Chemistry	Dental Health	Engineer- ing and Sanitation	Food and Drugs	Local Health	Negro Health	Vital Statistics	Totals
Salaries	\$31,580.49	\$39,717.73	\$22,769.13	\$58,690.16	\$49,748.37	\$59,772.20	\$44,684.59	\$10,180.00	\$50,632.36	\$367,774.02
War adjustment						315.00	75.84		156.00	983.89
Laboratory supplies		16,906.48	2,483.66			349.35	1,043.04			19,741.49
Pneumonia and measles serum										5,586.12
Biological assays										8,012.34
Diphtheria toxoid and smallpox vaccine										454.29
Whooping cough immunization										2,919.77
Typhoid vaccine										1,785.73
Stationery and office supplies	2,743.41									650.21
Vehicular transportation sup-plies	105.66									199.15
Engineering supplies										931.25
Educational, recreational and library supplies										76.15
Dental health education material										589.95
Inspectors' supplies	3,375.32		151.01	479.00						3,003.20
Printing	1,388.07		93.98	645.47						960.378
Traveling expenses	215.00			200.00						50.00
Insurance										1,248.75
Binding volumes of birth, mar-riage and death certificates										76.15
Rental of tabulation machines										568.98
Garage rents	72.00									391.00
Freight, express and cartage	14.39									1,108.43
Subscriptions	317.26									86.41
Maintenance of dental trailer										217.94
Household expenses										544.23
Miscellaneous expenses	6,223.02		2.80	572.39						76.15
Maintenance of boats and plants				10.00						205.84
Repairs and maintenance:										1,436.18
Automotive equipment	206.80									50.00
Office furniture, equipment and machines	56.01		23.48	6.75						588.00
Compensation award										230.50
Totals	\$46,496.58	\$60,229.16	\$25,603.85	\$61,544.47	\$56,014.19	\$75,245.63	\$63,142.92	\$11,834.30	\$54,857.29	\$454,968.39

DEPARTMENT OF HEALTH

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1946STATE FUNDS
APPROPRIATIONS FOR SPECIFIC PURPOSES

	Veneral Disease Control	Maternal and Child Health	Industrial Health	Totals
Salaries	\$19,689.15	\$78,514.79	\$25,745.69	\$123,949.63
War adjustment	36.00	399.70		435.70
Laboratory supplies, drugs and biologicals	4,738.63	301.31	421.89	5,461.83
Stationery and office supplies	281.53	1,044.34	294.54	1,620.41
Printing	1,060.65	207.96	1,347.26	2,615.81
Travel	603.18	10,731.41	3,777.25	15,111.84
Subscriptions	70.00			70.00
Miscellaneous expenses	67.47	94.37	150.06	311.90
Current repairs:				
Office furniture, equipment and machines	55.50	42.70		98.20
Totals	\$26,602.11	\$91,336.58	\$31,736.63	\$149,675.32

TOTAL EXPENDITURES FROM STATE FUNDS

Central administration bureaus	\$454,968.39
Appropriations for specific purposes	149,675.32
Total	\$604,643.71

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1946

STATE FUNDS

RABIES CONTROL FUNDS

Salaries	\$20,055.43
Anti-rabies serum	821.03
Stationery and office supplies	312.32
Motor vehicle transportation supplies	174.66
Printing	582.03
Travel	4,257.29
Insurance	10.00
Postage	500.00
Office rent	915.00
Garage rent	56.00
Court expenses	47.79
Telephone and telegraph	300.00
Miscellaneous expenses	139.53
Total expenditures—Rabies Control	\$28,171.08

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1946

FEDERAL FUNDS

Project General Health	Salaries	Travel	Materials, Supplies and Services	Total Expendi- tures
Bureau of Administration	\$14,691.98	\$757.49	\$11,764.08	\$27,213.55
Bureau of Bacteriology	28,450.64		5,504.27	33,954.91
Bureau of Chemistry	13,160.63		2,235.94	15,396.57
Division of Dental Health	15,164.92	1,043.90	4,090.03	20,298.85
Bureau of Engineering and Sanitation	21,639.92	1,099.48	798.03	23,537.43
Bureau of Food and Drugs	14,921.45	4,499.61	2,178.29	21,599.35
Bureau of Local Health Administration	12,999.32	2,463.40	4,104.51	19,567.23
Atlantic, Cape May State Health District	5,405.00	534.51	455.45	6,394.96
Bergen, Passaic State Health District	3,044.14	300.00	191.92	3,536.06
Burlington State Health District	6,330.00	1,859.79	620.00	8,809.79
Cumberland, Gloucester, Salem Health District	7,008.39	851.98	568.31	8,428.68
Monmouth, Ocean and part of Middlesex State Health District	3,480.00	375.00	125.76	3,980.76
Somerset, Hunterdon, Middlesex, Camp Kilmer State Health District	4,679.03	824.41	391.84	5,895.28
Sussex, Warren, Morris State Health District	4,380.00	968.72	864.62	6,213.34
Camden County State Health District	3,360.00	479.80	363.13	4,202.93
Bureau of Vital Statistics	9,313.34	86.32	2,918.51	12,318.17
Division of Industrial Health			2,645.34	2,645.34
Bureau of Preventable Diseases	8,149.87	632.14	263.26	9,045.27
Division of Health Education			350.00	350.00
In-service field orientation			1,212.00	1,212.00
Training of personnel			231.49	231.49
Total expenditures General health Funds	\$176,178.63	\$16,776.55	\$41,881.78	\$234,836.96

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1946—Continued

Project	FEDERAL FUNDS—Continued			Total Expenditures
	Salaries	Travel	Materials, Supplies and Services	
<i>Venerae Disease Control Act</i>				
Bureau of Bacteriology	\$4,440.00	\$65.75	\$6,325.03	\$10,830.78
Division of Venerae Disease Control ..	97,756.29	8,102.09	54,222.88	160,081.26
Training of personnel			750.48	750.48
<i>Total expenditures—Venerae Disease Control Act</i>	<i>\$102,196.29</i>	<i>\$8,167.84</i>	<i>\$61,298.39</i>	<i>\$171,662.52</i>
<i>Total expenditures—rapid treatment facilities</i>			<i>\$71,059.80</i>	<i>\$71,059.80</i>
<i>Title V, Social Security Act</i>				
<i>Total expenditures—maternal and child health</i>	<i>\$545,781.52</i>	<i>\$7,801.32</i>	<i>\$668,541.06</i>	<i>\$1,222,123.90</i>
<i>Tuberculosis Control</i>				
Division Tuberculosis Control	\$25,331.34	\$5,540.16	\$69,975.52	\$100,847.02
Division of Health Education	11,550.58	1,143.01	5,969.29	18,662.88
<i>Total expenditures—tuberculosis control</i>	<i>\$36,881.92</i>	<i>\$6,683.17</i>	<i>\$75,944.81</i>	<i>\$119,509.90</i>
<i>Total federal funds expended</i>	<i>\$861,038.36</i>	<i>\$39,428.88</i>	<i>\$918,725.84</i>	<i>\$1,819,193.08</i>

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH
OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING
JUNE 30, 1946—Continued

COMBINED EXPENDITURES—STATE AND FEDERAL FUNDS

<i>Salaries (and War Adjustment)—</i>				
State			\$491,723.65	
Federal: General health	\$176,178.63			
Venerae Disease Control Act	102,196.29			
Title V—maternal and child health	545,781.52			
Tuberculosis control	36,881.92			
		\$61,038.36		
			\$1,352,762.01	
<i>Other Expenses—</i>				
State			\$112,920.06	
Federal: General health	\$58,658.33			
Venerae disease control	69,466.23			
Rapid treatment facilities	71,059.80			
Title V—maternal and child health	676,342.38			
Tuberculosis control	82,627.98			
		\$958,154.72		
			1,071,074.78	
<i>Total expended—state and federal funds</i>			<i>\$2,423,836.79</i>	
<i>Expended for rabies control from dog registration fees</i>			<i>28,171.08</i>	

Report of the Bureau of Local Health Administration

For the Year Ending June 30, 1946

By WILLIAM H. MACDONALD, Chief

At the close of the fiscal year ending June 30, 1946, the personnel of the Bureau of Local Health Administration at the central office in Trenton consisted of the Bureau Chief, the Assistant Chief, the Supervisor of District Health Officers and Sanitation, the Distributor of Biologicals, and 11 stenographic and clerical assistants. The advisory public health nurse, who had been assigned to the Bureau, was transferred in December, 1945, to the Bureau of Preventable Diseases.

The eight district health offices maintained by the Bureau at Dover, Hackensack, Highland Park, Freehold, Mount Holly, Collingswood, Pitman and Mays Landing were continued during the year. At each district office, except Collingswood, there were at the close of the fiscal year a District Health Officer, a sanitarian and a clerk. One additional sanitarian was employed at the Mount Holly office. At Collingswood there is no sanitarian or clerk. The District Officer at this office also serves in that capacity at the Mount Holly office pending the return of a District Officer from military service. In addition to the above, there were two public health nurses (communicable diseases) employed, one assigned to the Mount Holly office and the other to the Mays Landing office. Another nurse who had been employed at the Dover office, was transferred on January 1, 1946, to the Division of Dental Health, and a nurse who had been assigned to the district office at Mount Holly was transferred on February 1, 1946, as assistant to the state advisory nurse.

One District Health Officer and five sanitarians were in active military service during the war years. At the close of the fiscal year three of the sanitarians had returned to duty.

REPORTABLE DISEASES FOR 1945

Local boards of health reported 57,097 cases of the 36 diseases listed in Regulation 1, Chapter VI of the State Sanitary Code during the calendar year 1945. This figure is considerably lower than those for the two pre-

ceding years, which were, 89,929 (1944) and 162,868 (1943). The so-called children's diseases—chickenpox, measles, German measles, mumps, and whooping cough—accounted for 71 per cent of the cases reported in 1945.

Diphtheria reports numbered 140, which is one less than the 1944 figure. Deaths were six against five in 1944.

Measles reports dropped from 29,491 in 1944 to 1,747 in 1945, the lowest figure since the disease was made reportable in 1918. Only three deaths were recorded, which is also a record low.

Meningitis (epidemic cerebrospinal) reports totaled 290, which is less than half the 1944 figure. Deaths were 64 in 1945 against 111 in 1944.

Pneumonia reports numbered 3,849, with 1,668 recorded deaths. The corresponding figures for 1944 were 3,961 and 1,811.

Poliomyelitis (acute anterior), with 952 cases reported, was more prevalent than in any year since 1931, when 975 cases were reported. One hundred and two deaths were recorded, also the highest number since 1931.

Scarlet fever reports decreased from 6,202 in 1944 to 4,243 in 1945. The corresponding death figures were 11 and 5.

Tuberculosis figures showed a slight decrease from 3,475 cases in 1944 to 3,413 in 1945. Deaths decreased from 1,813 to 1,726.

Typhoid fever reports numbered 80, exactly the same figure as in 1944. Eight deaths were recorded in 1945, nine in 1944.

Whooping cough reports increased from 3,097 cases in 1944 to 7,317 in 1945. Twenty-four deaths were recorded in 1945. Fourteen of the deaths were in infants under one year of age and nine in the 1-4-year age group.

ANTHRAX

Only two cases were reported in 1945. One death occurred. The cases were in persons employed in industrial plants where wool is processed.

MALARIA

During 1945, there were reported 1,412 cases of malaria. This is the highest number reported in this State since the disease was made reportable in 1911. Cases among returned military and naval personnel accounted for most of the cases. Military establishments within the State reported 1,313 cases; local boards of health reported 99 cases. Eighty-four of these 99 were persons who had been in military service, and the remaining 15 were civilians. Only five of the 15 civilian cases were apparently infected in New Jersey, and two of these are believed to have resulted from blood transfusions.

The plan inaugurated early in the war period, under which the State Department of Health notified the Department of Entomology of the New

Jersey State Experiment Station of the location of all reported cases of malaria, was continued during the year. Under this plan a survey of the vicinity of each patient's home for anopheles mosquito breeding places was made either by a representative of the appropriate county mosquito extermination commission or by a representative of the Department of Entomology and the results reported to the local board of health. Such breeding places as were found were then kept under observation during the mosquito breeding season and control measures instituted when necessary.

ROCKY MOUNTAIN SPOTTED FEVER

Fifteen cases were reported in 1945, three of which were fatal. In the previous year, 19 cases and one death were recorded. The location of the 1945 cases by county was as follows: Bergen 1, Burlington 1, Cape May 3, Cumberland 2, Essex 1, Mercer 1, and Monmouth 6. A considerable amount of vaccine for protective inoculations furnished by the United States Public Health Service was distributed to physicians upon request.

TRICHINOSIS

The number of reported cases of trichinosis dropped from 53 in 1944 to 26 in 1945. One death was recorded. Case histories showed that 18 of the 26 cases had eaten pork or pork products shortly before taken ill, two gave a history of having eaten hamburgers in which they assumed there was no pork, and for the remaining six cases satisfactory records were not obtained.

TULAREMIA

Three cases of this disease were reported, one each in Atlantic, Camden and Gloucester Counties. Each patient gave a history of having cleaned a wild rabbit prior to the onset of illness.

UNDULANT FEVER

In 1945, there were 73 cases of undulant fever reported. No death was recorded. Cases occurred in every county except Atlantic. The counties with the highest number of cases were Somerset with 12, Essex with 8, and Middlesex with 7.

Case histories showed that 33 of the patients had been regular users of raw milk before illness; five had used both raw and pasteurized milk; two had used pasteurized milk regularly and raw milk occasionally; three had used pasteurized milk regularly, but occasionally used milk of unknown kind; 20 gave no history of the use of milk other than pasteurized, but of these 20, three were persons who had slaughtered hogs before illness, one was

a veterinarian and two were apparently infected outside of New Jersey. In 10 cases definite information as to the use of milk was not obtained. In the 63 cases for which information as to the use of milk was available, raw milk was a factor in 40, or 63 per cent, of the cases. Eighteen of the patients followed occupations as a result of which infection might possibly have been acquired: dairymen 5, farmers 10, butchers 2, and veterinarian 1.

INVESTIGATIONS OF COMMUNICABLE DISEASES

During the fiscal year ending June 30, 1946, employees of the Bureau investigated 440 cases of communicable diseases, exclusive of tuberculosis. These cases were divided by diseases as follows:

Anthrax	2	Undulant fever	45
Chickpox	38	Poliovmyelitis (acute anterior)	124
Diphtheria	43	Rocky Mt. spotted fever	3
Dysentery, amoebic	1	Smallpox	1
Hepatitis, infectious	4	Scarlet fever	29
Malaria	63	Streptococic sore throat	1
Measles	7	Trichinosis	10
Meningitis (epidemic cerebrospinal)	7	Typhoid fever	62
Paratyphoid fever	5	Typhus fever	1
Whooping cough	3		

The only closely related group of cases having a common source occurred during August, 1945, and included 19 cases of typhoid fever. This outbreak was among the guests of a seashore resort hotel at Bradley Beach. Investigation revealed that a cook in the hotel kitchen was a typhoid carrier. During the investigation, operation of the hotel kitchen and dining room was suspended. Business was resumed after the carrier was found and his services discontinued. No further cases occurred.

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

Municipality	No. of Cases	Vector or Suspected Vector of Infection
Newton and vicinity	27	Cream puffs
Blairstown Township	49	Chicken a la king

Additional outbreaks of gastro-enteritis were reported by local health officials, as listed below:

Municipality	No. of Cases	Vector or Suspected Vector of Infection
Princeton Borough	17	Potato salad
Orange City	145	Chicken filling
Irvington Town	7	Not determined
Trenton City	3	Smoked ham

DAIRY PREMISES

Cases of the diseases which are reportable when occurring on dairy premises were reported on 14 such premises during the fiscal year. These reports included 12 cases of scarlet fever, three cases of typhoid fever, one case of diphtheria, and one case of streptococic sore throat. The daily milk production on the 14 dairies amounted to about 7,785 quarts. In each instance it was possible to institute satisfactory precautionary measures so that it was not necessary to interrupt the sale of milk.

TYPHOID CARRIERS

At the close of the fiscal year, 91 persons were recorded in the files of the Department as carriers of typhoid bacilli. Seven were withdrawn from the list during the year; three by death, three by removal from the State, and one after a series of negative specimens in accordance with the resolution adopted by the State Board of Health at its meeting in May, 1943. Eleven persons were added to the list of carriers. All 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 distributed to physicians and also to local boards of health for use in clinics through 64 stations throughout the State. Anti-rabic vaccine (human) was also distributed through 11 key stations.

During the fiscal year ending June 30, 1946, 30,500 packages of these seven materials were furnished to the distributing stations as need arose. Reports received from physicians and local health departments during the same period show that at least 51,827 children received either the diphtheria toxoid or diphtheria toxoid-whooping cough combined, furnished by the State, and at least 3,372 children received whooping cough vaccine not combined with diphtheria toxoid. A total of 30,493 smallpox vaccinations with the material furnished by the State was reported.

OTHER BIOLOGICALS

Immune serum globulin as a preventive of measles, made available without charge by the American Red Cross, was also distributed during the year through the 64 stations co-operating in the distribution of other vaccines. A rapid and very marked increase in the prevalence of measles during the latter part of the fiscal year ending June 30, 1946, resulted in greatly increased calls

for the globulin. A limited supply was purchased to augment the amount available through the Red Cross.

During the fiscal year a total of 19,000 packages of the globulin, some containing 2 c.c. and some 5 c.c. was released to the stations. Verbal reports from physicians as to the effectiveness of the material, when given before onset, both in preventing measles in exposed children or modifying the severity of illness, were almost universally favorable.

Pneumonia serum for the treatment of patients financially unable to pay for the material was furnished on request. Serum for treating two cases was released. Also in compliance with statute, pneumococcic typing serum was furnished on request to laboratories previously approved for this work.

AID IN VENEREAL DISEASE CONTROL

Groups of boards of health in seven counties continued to pool resources for the operation of venereal disease clinics. These groups were organized and continue their support of these clinics chiefly under the guidance and with the advice of the State District Health Officer of the respective areas.

Four public health nurses assigned the Bureau of Local Health Administration during all or part of the year made 933 field visits to venereal disease patients delinquent in treatment and 629 field visits to known or reported contacts with venereal disease cases.

TUBERCULOSIS AND INDUCTION BOARDS

The procedure as previously described in the follow-up of persons listed by military induction centers as suspected cases of tuberculosis, was continued. Such suspects were reported directly to this Department and were referred in turn to local agencies for personal visitation. Statements of the result of later examination for the presence of tuberculosis, either active or arrested, were returned to this office.

Since the time that the names of persons deferred from military service because of suspicion of tuberculosis were first made available to the Department, up to June 30, 1946, a total of 6,112 persons have been so recorded. As shown in the following table, at least 1,244 of this number were found, after more complete and careful examination, to have active tuberculosis.

CLASSIFICATION BASED UPON FOLLOW-UP EXAMINATIONS OF 6,112 PERSONS RECORDED AS DEFERRED FROM MILITARY SERVICE WITH EVIDENCE SUGGESTIVE OF TUBERCULOSIS

1. <i>Active tuberculosis:</i>			
(a) Pulmonary	1232		
(b) Non-pulmonary	12		
		1244	
2. <i>Arrested tuberculosis:</i>			
(a) Pulmonary	2807		
(b) Non-pulmonary	54		
		2861	
			4105
3. Pathology other than tuberculosis	330		
4. No apparent pathology	465		
5. In military service when followed up	111		
6. Residing out of New Jersey	587		
7. Deceased during investigation	19		
8. Not located in follow-up	251		
9. Visited but refused examination	75		
10. Under investigation:			
(a) Previously reported by local boards of health as tuberculous	24		
(b) Not previously reported by local boards of health as tuberculous	145		
		169	
			2007
			6112

TUBERCULOSIS IN INDUSTRIAL PLANTS

Names and addresses of workers found to show evidence suggestive of tuberculosis in X-ray screening examination of employees in industrial plants by the mobile unit sponsored by the Department, were referred to the Bureau of Local Health Administration for follow-up. In this work there was continued the general plan previously followed of referring such persons to their family physician, and to local agencies through district health offices or directly, in instances in which the name of a family physician was not available, or the report of follow-up examination by the family physician was not received.

During the year ending June 30, 1946, there were referred to the Bureau by the Division of Tuberculosis Control the names of 342 persons found to show evidence suggestive of tuberculosis in the X-ray screening examination of 20,878 workers at 15 industrial plants in nine counties. The follow-up of all these persons could not be completed in the same fiscal year. However, in the follow-up work completed during the year, both of the persons listed above and some others previously referred, there were recorded 28 active

cases of tuberculosis, 172 arrested tuberculosis, 68 as pathology other than tuberculosis, and 18 as no pathology.

From the beginning of the industrial mass X-ray program by the Department to June 30, 1946, a total of 929 cases of tuberculosis in some form has been recorded as a result of the follow-up of suspected cases revealed in the program. Of this total, 159 were recorded as active pulmonary cases.

TUBERCULOSIS AND THE VETERANS' ADMINISTRATION

Reports were received directly from veterans' hospitals of cases of tuberculosis residing in New Jersey who were admitted to, discharged from, or left such hospitals without permission. Veterans reported as leaving these hospitals were referred to local agencies for follow-up. A total of 98 such persons were referred during the year. There were also followed up during the same period 16 others listed as under investigation at the end of the previous year.

Records of these up to June 30, 1946, showed 20 to be attending a chest clinic in New Jersey; 12 were admitted to a hospital in this State; 7 re-entered a hospital of the Veterans' Administration; 15 were under the professional care of their own physician; 5 were recorded as deceased. Twelve were not located and 43 were still under investigation at the end of the year.

From the Veterans' Administration there were also received the names of 438 persons listed as members of the immediate families of tuberculous veterans. These were also referred to local agencies for visitation to urge chest examinations. At the end of the year a summary of the results of the follow-up of these 438 persons, together with a similar group classed as still under investigation at the end of the previous fiscal year, was as follows:

Examined and found to have active tuberculosis	1
Arrested tuberculosis	26
Pathology other than tuberculosis	5
Negative patch test	15
No lung pathology	233
Physically unable to attend a clinic	9
Found to have had no recent contact with the veteran in question	38
In military service	17
Refused examination	38
Not located	29
Still under investigation	137

INSPECTION OF FOOD-VENDING ESTABLISHMENTS

In the areas about Fort Dix and Camp Kilmer frequent inspection is made by employees assigned to the Bureau of places offering food or drink for sale to the public. Inspections are also made to a limited degree of such places in small towns and in rural areas. During the year a total of 1,163 primary inspections and 5,429 re-inspections of this type were made. As a check on dishwashing methods, swabs from utensils in a few eating places in the Fort Dix and Camp Kilmer areas were collected on alternate weeks and submitted to the laboratory of the Department for determination of total bacteria.

CAMP INSPECTIONS

Inspection of a total of 160 recreational camps located chiefly in rural sections were made by employees assigned to the Bureau. Basic sanitation, including the water supply, sewage and waste disposal, were stressed in these inspections as well as methods followed in cleansing dishes and storing and preparing food. A Certificate of Approval was issued each camp found to have a high rating in these particulars. Although these certificates are not required by statute for the operation of a camp, the desire to receive and display such a certificate has been a definite added incentive to camps, groups and operators to improve sanitary conditions and facilities.

PRIVATE WATER SUPPLIES

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

In the year under review, 1,015 such letters were sent, each containing the results of the tests, an interpretation of their public health significance and, if the water proved to be unsafe, a request for a report on action taken by the local board. Five hundred eighty-seven, or 58 per cent, of the 1,015 supplies were found to be safe; 73, or 7 per cent, were of doubtful quality, and 355, or 35 per cent, were reported unsafe for drinking and household use.

TRAINING COURSES

Training courses for public health workers were offered again by Rutgers University and this Department, according to the policy followed for 20 years. These included summer courses held at New Brunswick two days a week

for two terms of six weeks each, a total of 144 clock hours, and short winter courses, usually held on Wednesday evenings and Saturday afternoons for two terms of ten weeks each, at places convenient for the students enrolled.

The summer courses in 1945 were attended by 30 persons, 14 in the first year class and 16 in the advanced group. Since these courses started in 1926, 313 students have enrolled and 203 received a Rutgers certificate for satisfactory completion of the required studies. Nine winter courses were held in 1945-46, with 122 students completing them. These courses gave instruction in dairy laboratory procedures, basic training for sanitarians, water supply and sewage disposal, industrial health problems and public health education technique. Classes were conducted at Newark, Hawthorne, Dover, Long Branch, Woodstown, Woodbury and Camden, as well as New Brunswick.

LOCAL BOARDS OF HEALTH

Information obtained from annual reports of each local Board of Health for the calendar year 1945 shows that these boards had available for their use in that year \$3,075,931.63, which is equivalent to 73 cents per capita for the State as a whole. The amount reported as expended during the year by local health boards was \$2,944,416.95. Of this sum, \$156,884.54 was reported as expended for hospital maintenance and for garbage and rubbish removal.

SUMMARY OF OTHER WORK OF THE BUREAU

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

Number of conferences with local health officials on questions pertaining to public health	5,332
Number of conferences with persons other than local health officials	7,635
Number of meetings of local boards of health attended	60
Number of other meetings attended	387
Number of lectures given in summer courses for health officials	59
No. of lectures given in special courses for health officials	100
Number of other talks or lectures given or papers read	45
Number of persons given immunizing treatments or aid given in such treatments	523
Number of specimens collected from humans either by employees of the Bureau or with their aid, to be examined for pathogenic bacteria	379
Number of other specimens and samples collected for laboratory examinations	1,295
Number of instances in which aid was given in diagnosis of suspected cases of communicable disease	2

REPORTED CASES AND DEATHS, CASE AND DEATH RATES FOR CERTAIN REPORTABLE DISEASES FOR 1945

DISEASE	Cases	Cases Per 100,000 Pop.	Deaths	Deaths Per 100,000 Pop.	Per Cent Fatality
Chickenpox	22,142	827.07	8	0.07	0.01
Diphtheria	140	3.33	6	0.14	4.23
Influenza	649	15.45	188	3.23	21.28
Pneumonia	3,840	91.62	1,699	39.70	43.83
Meningitis, Epidemic cerebrospinal	290	9.90	64	1.62	22.07
Measles	1,747	41.88	3	0.07	0.17
German measles	2,888	68.98	0	.....	.....
Poliomyelitis (acute anterior)	952	22.66	102	2.43	10.71
Scarlet fever	4,248	101.00	5	0.12	0.11
Rocky Mountain spotted fever	15	0.35	3	0.07	20.00
Tuberculosis	3,413	81.24	1,726	41.06	50.57
Typhoid fever	90	1.90	8	0.19	10.00
Whooping cough	7,817	174.17	24	0.57	0.58

CASES AND DEATHS FROM OTHER REPORTABLE DISEASES FOR 1945

DISEASE	Cases	Deaths	DISEASE	Cases	Deaths
Anthrax	2	1	Rabies	0	0
Dysentery, amoebic	54	5	Smallpox	0	0
Bacillary	8	2	Tetanus	8	7
Unspecified	49	2	Trachoma	2	3
Encephalitis, lethargic	8	20	Trichinosis	26	1
Malaria	1,412	3	Tularemia	3	0
Mumps	7,713	1	Typhus fever	6	0
Ophthalmia neonatorum	14	0	Undulant fever	78	0
Paratyphoid fever	15	4			

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1945

COUNTIES	Anthrax	Cholera	Diphtheria	Dysentery	Encephalitis Epidemic	Influenza	Malaria	Measles	German Measles	Measles Epidemic	Scarlet Fever	Smallpox	Staphylococcal Sore Throat	Tetanus	Tuberculosis	Typhoid Fever	Typhus Fever	Urticaria Fever	Whooping Cough
Atlantic	0	222	4	0	0	12	3	83	48	4	226	0	0	0	0	0	0	0	0
Bergen	0	272	6	0	0	17	5	119	81	25	1,650	0	0	0	0	0	0	0	0
Burlington	0	178	8	0	0	17	7	171	70	25	271	0	0	0	0	0	0	0	0
Camden	0	793	89	0	0	78	0	206	17	25	1,171	0	0	0	0	0	0	0	0
Cape May	1	89	2	0	0	19	0	36	17	1	55	0	0	0	0	0	0	0	0
Camden	0	171	5	0	0	6	1	47	25	7	83	0	0	0	0	0	0	0	0
Gloucester	0	313	0	3	3	118	22	842	974	77	1,262	0	0	0	0	0	0	0	0
Hudson	0	484	28	0	0	68	0	225	18	77	228	0	0	0	0	0	0	0	0
Huntdon	0	84	0	0	0	60	3	115	64	88	546	0	0	0	0	0	0	0	0
Huntdon	0	84	0	0	0	60	3	115	64	88	546	0	0	0	0	0	0	0	0
Mercer	0	492	8	0	0	22	4	118	81	12	837	0	0	0	0	0	0	0	0
Midlesex	0	481	8	0	0	1	2	40	47	4	197	0	0	0	0	0	0	0	0
Monmouth	0	700	4	0	0	3	3	25	20	14	836	0	0	0	0	0	0	0	0
Ocean	0	1,077	0	0	0	2	2	44	103	10	83	0	0	0	0	0	0	0	0
Ocean	0	71	0	0	0	4	4	34	9	2	88	0	0	0	0	0	0	0	0
Passaic	1	1,640	8	0	0	78	6	57	40	13	871	1	0	0	0	0	0	0	0
Salem	0	88	3	0	0	0	0	9	1	5	15	0	0	0	0	0	0	0	0
Somerset	0	283	0	0	0	0	0	26	20	0	260	0	0	0	0	0	0	0	0
Sussex	0	73	2	0	0	0	0	25	20	0	260	0	0	0	0	0	0	0	0
Warren	0	2,490	5	0	0	20	11	203	232	12	415	0	0	0	0	0	0	0	0
Warren	0	15	2	0	0	5	1	17	59	8	13	0	0	0	0	0	0	0	0
State Institutions	0	81	3	0	0	1	0	2	0	2	205	0	0	0	0	0	0	0	0
Military posts	0	54	13	77	0	5	1,813	31	58	2	205	0	0	0	0	0	0	0	0
State total	2	22,142	140	106	5	649	1,413	1,747	2,688	290	7,713	14	15	15	8,849	932	0	0	0

REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1945—(Continued)

COUNTIES	Babies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Staphylococcal Sore Throat	Tetanus	Tuberculosis	Typhoid Fever	Typhus Fever	Urticaria Fever	Whooping Cough
Atlantic	0	0	208	0	2	0	83	1	0	0	47
Bergen	0	1	49	0	10	0	244	0	0	4	1,440
Burlington	0	0	16	0	0	0	46	0	0	1	68
Camden	0	0	214	0	0	0	222	0	0	3	92
Cape May	0	3	71	0	2	0	16	0	0	1	94
Camden	0	0	0	0	0	0	0	0	0	0	0
Gloucester	0	0	1,182	0	69	0	32	0	0	0	38
Hudson	0	0	174	0	16	0	69	0	0	0	59
Huntdon	0	0	80	0	0	0	28	0	0	0	123
Huntdon	0	0	80	0	0	0	28	0	0	0	602
Mercer	0	1	273	0	0	2	103	0	0	0	2
Midlesex	0	0	313	0	0	0	128	0	0	0	35
Monmouth	0	0	106	0	4	0	110	0	0	0	154
Monmouth	0	0	106	0	0	0	110	0	0	0	157
Morris	0	0	104	0	0	0	108	0	0	0	205
Ocean	0	0	14	0	0	0	28	0	0	0	47
Ocean	0	0	14	0	0	0	28	0	0	0	28
Passaic	0	0	174	0	0	0	180	0	0	0	626
Salem	0	0	60	0	0	0	26	0	0	0	23
Somerset	0	0	20	0	0	0	30	0	0	0	77
Sussex	0	0	847	0	3	0	132	0	0	0	47
Union	0	0	16	0	0	0	151	0	0	0	67
Warren	0	0	16	0	0	1	25	0	0	0	28
Warren	0	0	14	0	0	0	25	0	0	0	0
State Institutions	0	0	68	0	1	0	295	0	0	0	0
Military posts	0	15	4,243	0	105	8	294	0	0	0	0
State total	0	15	4,243	0	105	8	295	3	80	6	73
State total	0	15	4,243	0	105	8	294	3	80	6	73

DEPARTMENT OF HEALTH

RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1945

COUNTIES	Anthrax	Chickpox	Diphtheria	Dysentery	Haemophilic Lethargic	Influenza	Malaria	Measles	German Measles	Meningitis, Epidemic Cerebrospinal	Whooping Cough	Optic Neuritis	Paratyphoid Fever	Pneumonia	Acute Anterior Polyomyelitis
Atlantic	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0
Bergen	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0
Burlington	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
Camden	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Essex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloucester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hudson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monmouth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Morris	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocean	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State total	1	2	6	9	20	188	3	3	0	64	1	0	4	1,683	102

LOCAL HEALTH ADMINISTRATION

RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1945—(Continued)

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic	0	0	0	0	0	0	0	80	0	0	0	0
Bergen	0	0	0	0	0	0	0	12	0	0	0	0
Burlington	0	0	0	0	0	0	0	28	0	0	0	0
Camden	0	0	0	0	0	0	0	118	0	0	0	0
Cape May	0	0	0	0	0	0	0	9	0	0	0	0
Cumberland	0	0	0	0	0	0	0	23	0	0	0	0
Essex	0	0	0	0	0	0	0	400	0	0	0	0
Gloucester	0	0	0	0	0	0	0	391	0	0	0	0
Hudson	0	0	0	0	0	0	0	112	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	92	0	0	0	0
Mercer	0	0	0	0	0	0	0	87	0	0	0	0
Middlesex	0	0	0	0	0	0	0	86	0	0	0	0
Monmouth	0	0	0	0	0	0	0	85	0	0	0	0
Morris	0	0	0	0	0	0	0	13	0	0	0	0
Ocean	0	0	0	0	0	0	0	106	0	0	0	0
Passaic	0	0	0	0	0	0	0	11	0	0	0	0
Salem	0	0	0	0	0	0	0	27	0	0	0	0
Somerset	0	0	0	0	0	0	0	151	0	0	0	0
Union	0	0	0	0	0	0	0	12	0	0	0	0
Warren	0	0	0	0	0	0	0	12	0	0	0	0
State total	0	3	6	0	23	7	1	1,726	8	0	0	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.

REPORTED CASES OF DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	1	0	0	0	0	0	0	0	1	0	0	0	0
1 year	2	0	0	0	1	1	0	0	0	0	0	0	0
2 years	8	2	0	0	0	1	1	2	0	0	0	0	0
3 years	15	0	0	1	3	0	1	2	0	1	0	0	0
4 years	11	1	3	0	2	0	1	2	0	1	1	0	4
Under 5 years	37	3	4	1	6	2	3	5	1	3	3	1	5
5 to 9 years	35	1	2	1	6	1	2	2	2	4	3	6	3
10 to 14 years	11	2	1	2	0	2	2	2	4	3	6	4	3
15 to 19 years	12	0	1	2	0	2	3	1	0	0	1	0	1
20 to 24 years	18	3	0	1	2	1	3	1	0	0	0	0	1
25 to 34 years	17	0	1	1	2	0	1	1	1	2	0	0	1
35 to 44 years	6	0	1	2	1	0	0	0	2	4	2	3	2
45 to 54 years	1	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	1	0	0	0	0	0	0	0	0	1	0	0	0
65 years and over	1	0	0	0	0	0	0	0	0	1	0	0	0
Age not stated	2	0	0	0	2	0	0	0	0	0	0	0	1
Total	140	9	10	14	16	6	11	9	8	14	17	8	18

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex.

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
	Under 1 year	1	0	0	0	1	0
1 year	2	0	0	0	2	0
2 years	8	0	8	0	8	0
3 years	6	0	9	0	15	0
4 years	7	0	4	0	11	0
Under 5 years	21	0	18	1	37	1
5 to 9 years	20	1	15	1	35	2
10 to 14 years	11	0	7	0	18	0
15 to 19 years	5	0	7	0	12	0
20 to 24 years	8	0	10	0	18	0
25 to 34 years	10	2	7	0	17	2
35 to 44 years	4	0	0	0	4	0
45 to 54 years	1	0	0	0	1	0
55 to 64 years	0	0	1	0	1	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	2	0	2	0
Total	69	4	71	2	140	6

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1945, 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	12	0	1	0	1	3	1	1	0	0	2	1	2
1 year	22	4	4	0	2	6	1	1	0	2	0	1	2
2 years	17	1	2	4	0	3	2	1	0	0	0	1	2
3 years	7	1	2	4	0	2	0	0	1	0	0	1	2
4 years	9	0	1	1	0	1	1	0	1	0	2	0	2
Under 5 years	67	6	10	5	5	13	5	2	4	2	4	3	8
5 to 9 years	39	4	2	7	4	5	0	2	0	4	3	8	8
10 to 14 years	26	8	3	5	0	2	1	0	3	1	2	1	2
15 to 19 years	34	10	3	5	0	2	1	0	1	3	1	3	2
20 to 24 years	18	4	3	2	0	1	5	0	3	2	0	1	4
25 to 34 years	39	7	4	2	6	1	4	1	3	0	2	1	4
35 to 44 years	24	4	2	4	3	2	4	0	0	3	1	2	2
45 to 54 years	30	4	3	4	3	2	4	1	0	1	1	2	5
55 to 64 years	15	2	3	4	0	2	4	1	0	0	1	0	5
65 years and over	6	1	0	1	0	1	1	0	0	0	1	0	1
Age not stated	1	0	0	0	0	1	1	0	0	0	0	0	0
Total	290	60	38	37	18	39	14	14	7	14	18	12	34

REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	7	5	5	4	12	9
1 year	11	6	11	3	22	9
2 years	10	2	7	0	17	2
3 years	5	2	2	1	7	3
4 years	7	1	2	0	9	1
Under 5 years	40	18	27	9	67	24
5 to 9 years	21	5	5	3	30	6
10 to 14 years	12	4	14	1	26	5
15 to 19 years	21	0	13	1	34	1
20 to 24 years	21	0	7	1	28	1
25 to 34 years	23	2	18	1	41	3
35 to 44 years	18	2	8	2	24	4
45 to 54 years	18	4	12	5	29	9
55 to 64 years	10	5	5	4	15	2
65 years and over	4	2	2	0	6	2
Age not stated	1	0	0	0	1	0
Total	177	40	113	24	290	64

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1945, 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	305	28	54	85	29	21	19	18	2	9	17	22	26
1 year	129	18	20	19	8	5	1	3	5	2	14	11	24
2 years	101	9	20	11	14	10	5	0	1	2	7	7	15
3 years	67	10	10	12	11	8	0	1	2	0	7	5	7
4 years	66	1	9	11	5	2	3	4	2	8	4	4	7
Under 5 years	657	64	118	118	67	46	28	21	11	19	42	61	77
5 to 9 years	296	28	15	32	12	10	5	7	4	5	17	27	48
10 to 14 years	149	6	8	9	6	8	4	6	6	6	19	17	42
15 to 19 years	184	18	9	16	11	9	3	8	9	11	16	33	46
20 to 24 years	211	15	19	13	16	14	6	12	11	11	21	29	44
25 to 34 years	421	43	37	35	29	26	26	20	28	31	53	52	78
35 to 44 years	445	64	54	40	28	28	16	13	18	22	38	52	74
45 to 54 years	441	67	44	54	25	32	25	11	20	20	39	38	75
55 to 64 years	403	61	48	53	27	23	21	18	10	11	22	36	67
65 years and over	732	80	103	54	54	52	27	34	46	80	106	80	106
Age not stated	7	0	1	1	1	0	0	1	0	1	1	1	1
Total	3849	456	426	476	270	245	188	149	118	167	283	386	658

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	156	100	149	132	305	232
1 year	67	17	62	33	129	49
2 years	48	10	53	6	101	16
3 years	41	4	26	6	67	10
4 years	66	8	19	4	85	9
Under 5 years	248	196	300	180	657	376
5 to 9 years	115	8	95	7	206	15
10 to 14 years	61	4	69	12	140	16
15 to 19 years	139	15	49	9	184	24
20 to 24 years	186	8	81	15	267	23
25 to 34 years	270	25	151	22	421	47
35 to 44 years	284	64	101	39	445	103
45 to 54 years	264	121	167	60	441	171
55 to 64 years	267	141	146	84	403	227
65 years and over	386	34	361	63	732	106
Age not stated	8	0	4	0	12	0
Total	2272	946	1577	722	3849	1668

REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	15	0	0	0	0	0	0	4	7	3	0	0	0
1 year	47	0	0	0	0	0	2	11	22	10	3	0	1
2 years	65	0	0	0	0	1	0	7	27	9	9	0	0
3 years	58	0	0	0	0	0	0	7	27	14	10	3	0
4 years	72	0	0	0	0	1	2	15	23	19	11	2	2
Under 5 years	257	0	0	0	0	2	4	47	108	75	37	6	3
5 to 9 years	208	0	1	0	0	2	4	47	108	75	37	6	3
10 to 14 years	202	0	1	0	0	1	2	60	115	56	28	6	3
15 to 19 years	91	1	2	2	0	1	4	27	64	48	30	7	0
20 to 24 years	35	0	0	0	0	1	1	11	35	26	14	1	0
25 to 34 years	49	1	0	0	0	1	4	11	35	26	14	1	0
35 to 44 years	49	1	0	0	0	1	4	11	35	26	14	1	0
45 to 54 years	18	0	0	1	0	0	0	7	14	20	2	2	0
55 to 64 years	1	0	0	0	0	0	0	3	5	6	2	1	0
65 years and over	1	0	0	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	952	2	4	3	1	5	12	159	367	240	126	27	8

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	8	1	7	1	15	2
1 year	22	3	25	2	47	5
2 years	33	3	30	2	63	5
3 years	33	2	25	2	58	4
4 years	40	2	32	3	72	5
Under 5 years	188	8	114	9	302	17
5 to 9 years	184	15	101	11	285	26
10 to 14 years	101	13	101	10	202	23
15 to 19 years	64	6	37	2	101	8
20 to 24 years	18	2	22	7	40	8
25 to 34 years	18	2	36	3	54	10
35 to 44 years	9	1	9	1	18	2
45 to 54 years	1	0	0	0	1	0
55 to 64 years	1	0	0	0	1	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	514	54	438	48	952	102

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	15	2	6	2	1	2	3	0	0	0	2	0	0
1 year	75	13	10	14	8	4	2	0	0	0	2	0	2
2 years	245	49	25	54	29	19	8	4	2	0	7	8	5
3 years	281	48	48	40	52	30	19	8	4	7	8	10	11
4 years	341	58	54	57	27	45	21	11	7	8	25	20	20
Under 5 years	990	171	143	163	108	120	65	53	26	15	27	46	44
5 to 9 years	1974	273	229	321	273	302	145	89	41	81	109	106	99
10 to 14 years	99	93	174	111	106	43	18	11	10	15	9	13	9
15 to 19 years	258	88	37	22	196	13	2	4	1	6	8	10	11
20 to 24 years	121	20	24	20	46	13	2	1	8	5	2	2	7
25 to 34 years	151	110	7	13	3	7	4	3	2	0	0	0	0
35 to 44 years	47	10	17	20	8	13	15	1	8	5	3	2	3
45 to 54 years	29	4	2	7	4	3	2	0	0	0	0	0	1
55 to 64 years	3	0	1	0	0	0	0	0	0	0	0	0	0
65 years and over	1	0	0	1	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	4243	622	559	797	661	592	297	88	75	76	135	212	225

REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	33	1	3	0	36	1
1 year	118	0	59	0	175	0
2 years	127	0	118	0	245	0
3 years	144	0	137	1	281	1
4 years	185	0	176	0	361	0
Under 5 years	485	1	475	1	960	2
5 to 9 years	971	0	1018	0	1974	0
10 to 14 years	372	0	377	0	749	1
15 to 19 years	181	1	127	0	298	1
20 to 24 years	57	0	64	0	121	0
25 to 34 years	54	0	50	0	110	0
35 to 44 years	17	0	20	0	47	0
45 to 54 years	9	0	11	0	20	0
55 to 64 years	3	1	0	0	3	1
65 years and over	1	0	0	0	1	0
Age not stated	0	0	0	0	0	0
Total	2100	4	2143	1	4243	5

REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	10	0	2	1	1	1	0	2	1	0	0	1	0
1 year	8	0	0	0	1	3	1	0	1	0	1	0	1
2 years	9	0	0	0	0	2	1	0	3	1	1	0	1
3 years	5	0	0	0	0	2	2	0	0	0	0	0	1
4 years	6	0	0	0	1	1	0	0	0	1	1	0	1
Under 5 years	37	0	2	1	5	9	2	2	5	2	8	1	5
5 to 9 years	35	1	0	6	1	4	7	4	1	3	1	3	4
10 to 14 years	41	8	6	4	6	3	3	3	2	8	2	5	0
15 to 19 years	157	13	13	13	13	19	17	8	7	10	9	17	13
20 to 24 years	344	27	17	33	37	29	26	26	35	39	22	26	35
25 to 34 years	700	54	61	65	68	69	70	63	69	79	51	63	64
35 to 44 years	690	55	55	57	52	77	57	59	69	61	49	55	40
45 to 54 years	584	39	50	57	51	52	44	45	62	72	46	82	81
55 to 64 years	428	29	32	33	41	43	47	48	50	51	25	38	26
65 years and over	298	25	23	24	21	27	23	25	20	22	25	15	15
Age not stated	9	2	1	0	1	0	2	0	1	2	0	0	0
Total	4413	248	268	315	304	380	299	308	311	318	246	266	291

REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	7	4	3	3	10	7
1 year	2	3	6	3	8	6
2 years	5	1	1	1	6	2
3 years	3	0	2	2	5	2
4 years	1	0	2	1	3	1
Under 5 years	21	8	19	10	40	18
5 to 9 years	16	3	19	6	35	9
10 to 14 years	17	4	24	6	41	10
15 to 19 years	75	14	53	31	128	45
20 to 24 years	142	49	202	67	344	116
25 to 34 years	155	53	166	66	321	119
35 to 44 years	485	210	522	112	1007	322
45 to 54 years	439	209	445	64	884	273
55 to 64 years	383	236	396	72	779	308
65 years and over	202	172	95	68	297	240
Age not stated	7	0	2	0	9	0
Total	2177	1126	1236	601	3413	1726

DEPARTMENT OF HEALTH

REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	1	0	0	0	0	0	0	0	0	0	0	0	0
1 year	1	0	0	0	0	0	0	0	1	0	1	0	0
2 years	1	0	0	0	0	0	0	0	0	0	0	0	0
3 years	1	0	0	0	0	0	0	0	0	0	0	0	0
4 years	3	0	0	0	0	0	0	0	1	1	0	0	0
Under 5 years	6	0	0	0	0	0	0	0	1	1	0	0	0
5 to 9 years	10	3	1	0	0	0	0	3	1	2	0	1	0
10 to 14 years	10	1	0	0	0	0	0	3	1	1	0	0	0
15 to 19 years	12	1	1	1	0	1	3	4	0	1	0	1	0
20 to 24 years	8	0	0	0	0	1	1	3	4	0	0	0	0
25 to 29 years	9	1	1	0	0	0	2	2	2	1	0	0	0
30 to 34 years	13	2	1	0	0	2	1	0	2	1	0	0	0
35 to 39 years	9	0	1	0	0	0	1	0	4	3	1	0	0
40 to 44 years	3	0	0	0	0	0	1	3	0	0	0	0	0
45 to 49 years	3	0	0	0	0	1	0	1	0	1	0	0	0
50 to 54 years	3	0	0	0	0	1	0	1	0	1	0	0	0
55 to 59 years	5	0	0	0	0	1	0	1	0	1	0	0	0
60 years and over	0	0	0	0	0	0	0	0	1	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	80	8	5	2	0	3	4	7	26	12	11	0	3

REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	1	0	0	0	1	0
1 year	0	0	0	0	1	0
2 years	0	0	1	0	1	0
3 years	0	0	0	0	0	0
4 years	1	0	2	0	1	0
Under 5 years	2	0	2	0	3	0
5 to 9 years	3	0	4	0	6	0
10 to 14 years	6	0	4	0	10	0
15 to 19 years	3	0	4	0	10	0
20 to 24 years	2	0	4	0	12	0
25 to 29 years	6	2	4	1	6	1
30 to 34 years	9	2	3	0	9	2
35 to 39 years	3	0	4	0	13	3
40 to 44 years	3	0	0	0	6	0
45 to 49 years	2	2	0	0	3	0
50 to 54 years	0	0	0	0	6	0
55 to 59 years	2	2	0	0	3	0
60 years and over	0	0	0	0	6	0
Age not stated	0	0	0	0	0	2
Total	44	7	36	1	80	8

REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	536	25	25	31	22	48	47	60	73	53	57	52	45
1 year	585	28	25	27	28	33	54	35	78	49	54	74	50
2 years	758	37	33	42	42	55	80	114	106	79	31	32	52
3 years	800	36	43	43	40	39	74	107	102	86	82	36	54
4 years	808	33	34	42	45	59	74	114	88	85	75	96	62
Under 5 years	3497	161	106	136	130	229	306	478	447	552	310	410	263
5 to 9 years	3189	201	177	231	204	225	225	476	447	552	310	410	263
10 to 14 years	490	39	24	30	30	61	43	54	35	42	32	25	27
15 to 19 years	15	3	1	7	5	8	1	5	4	2	3	5	3
20 to 24 years	0	0	0	1	3	3	1	1	2	0	1	1	2
25 to 29 years	30	1	1	2	0	3	1	1	2	0	1	1	3
30 to 34 years	32	0	2	3	2	3	2	1	4	7	5	1	4
35 to 39 years	7	0	0	1	0	1	1	1	2	1	2	2	0
40 to 44 years	5	0	0	1	0	1	1	1	2	0	2	0	0
45 to 49 years	4	0	0	0	0	1	1	0	2	0	0	0	0
50 to 54 years	5	0	0	0	0	1	1	0	2	0	0	0	0
55 to 59 years	4	0	0	0	0	1	1	0	1	0	0	0	0
60 years and over	0	0	0	0	0	0	0	0	1	0	1	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7317	405	372	461	515	516	665	927	799	932	631	856	548

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1945, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	253	6	288	8	536	14
1 year	294	1	321	4	585	5
2 years	305	0	403	2	708	2
3 years	331	0	406	1	800	1
4 years	400	0	406	1	806	1
Under 5 years	1673	7	1824	16	3497	23
5 to 9 years	1532	0	1666	0	3189	0
10 to 14 years	226	0	264	0	490	0
15 to 19 years	25	0	31	1	54	1
20 to 24 years	3	0	12	0	15	0
25 to 29 years	9	0	21	0	30	0
30 to 34 years	8	0	18	0	26	0
35 to 39 years	2	0	5	0	7	0
40 to 44 years	2	0	3	0	5	0
45 to 49 years	1	0	3	0	4	0
50 to 54 years	1	0	0	0	1	0
55 to 59 years	0	0	0	0	0	0
60 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	3480	7	3837	17	7317	24

Report of the Bureau of Engineering and Sanitation

For the Year Ending June 30, 1946

By H. P. Croft, C. E., Chief Engineer

The lack of critical materials and manpower continued during the year and such shortages, as in the last several years, have again prevented the construction of municipal sewage treatment plants, and extensive alterations and additions thereto, as well as large public water supply projects. Such a lack is reflected in the following summary that relates to plans examined in the Bureau and, later approved by the Department. Of the water projects approved 66 per cent, based on cost estimates, have been constructed, and of the sewerage projects, 63 per cent.

NUMBER OF WATER AND SEWERAGE PROJECTS EXAMINED AND APPROVED FROM JULY 1, 1945 TO JUNE 30, 1946

Type of Projects	Number of Projects	Number of Applying Municipalities, Commissions, Companies or Individuals	Number of Plans	Engineers' Estimates of Cost
<i>Water:</i>				
Alteration, improvements and additions to waterworks	38	35	81	\$111,451.85
New systems and supplies	4	4	16	61,150.00
<i>Sewage:</i>				
Sewer extensions	34	28	64	276,074.90
Alterations and additions to sewerage systems, sewage and/or industrial waste treatment plants	28	28	87	467,301.95
New sewage and/or industrial waste treatment plants, systems and appurtenances	8	8	44	239,860.91
<i>Totals</i>	112	103	292	\$1,155,839.61
Total of engineers' estimates of cost for the fiscal year ending June 30, 1945				\$1,991,136.14

However, during the war period, including this fiscal year, attention has been focused on those responsible for stream pollution, resulting in the violation of certain public health laws, in order to prepare the necessary engineering data so that construction may begin promptly when conditions improve.

INSPECTIONS AND OTHER ACTIVITIES

The field activities of the Bureau of Engineering and Sanitation fall into four general categories:

1. Protection of public potable water supplies:

To this end the technical personnel makes routine inspections of the operation of the water supplies, including the collection of samples for the determination of the quality of water delivered; investigates the probable causes of contamination of water supplies as may be indicated by the analyses of samples submitted to the Department quarterly; inspects physical connections and points of delivery of water for interstate carriers; collects data for court prosecution in cases of violation of statutes relating to water supplies; inspects school supplies; and makes such other emergency inspections as are occasioned by floods, hurricanes; etc.

2. Stream pollution control:

This entails policing of the operation of sewage and industrial wastes treatment plants; special and detail investigations of the degree and extent of the pollution of rivers and other waters of the State (excluding area under the jurisdiction of the Passaic Valley Sewerage District) with a view to collecting data to be used (a) as the basis of service of notices by the Department to cease the pollution of such waters, and (b) as testimony in court prosecution for non-compliance with terms of such notices; inspection of sewage treatment plants and outfalls discharging effluents into the Atlantic coastal waters, and collection of surf samples to determine in particular the bacteriological quality of the said waters (a safeguard to the health of persons using these waters for bathing purposes); detailed investigations of various methods of sewage treatment so that the Department may be able to make proper recommendations relating thereto; and such other activities as investigation of pollution complaints, routine stream sampling, float work in streams to determine path and extent of travel of stream waters, etc.

3. Conferences with interstate and other state, local and federal agencies:

The objective purpose of these conferences is to integrate the activities of the various agencies with a view to adopting and agreeing upon consistent policies in order to diminish the existing and control the future pollution of the inter and intra-state waters.

4. Court work:

This involves the service by the technical personnel of subpoenas, court orders, presentation of testimony in court; etc.

The man-hours spent in the performance of the above activities during the current fiscal year are as follows:

(a) Protection of public potable water supplies	4,750	man-hours
(b) Stream pollution control	4,950	" "
(c) Conferences with other agencies	2,110	" "
(d) Court work	35	" "
Total	11,845	" "

Another important and time-consuming activity is the administration of the Water and Sewage Treatment Plant Licensing Act, R. S. 58:11-14 through R. S. 58:11-18.22. (This act is discussed in detail in another section of this report.) The man-hours spent in the performance of this activity were 2,840. (Of this number, 1,310 hours were spent by the clerical staff.)

Notices issued pursuant to the provisions of R. S. 58:10-1	17
Notices issued pursuant to the provisions of R. S. 58:10-10	1
Notices issued pursuant to the provisions of R. S. 58:11-1	17
Notices issued pursuant to the provisions of R. S. 58:11-14 through 18	2
Notices issued pursuant to the provisions of R. S. 58:12-1 through 5	9
Notices issued pursuant to the provisions of Chapter 146, P. L. 1939	5
Notices issued pursuant to the provisions of Chapter 308, P. L. 1942	4
Orders of necessity issued pursuant to the provisions of R. S. 40:1-16 sub- vision "g"	2
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:11-1 through 3	5
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:11-14 through 18	3
Resolutions requesting Attorney-General to institute proceedings pursuant to the provisions of R. S. 58:12-2 through 3	2
Resolutions requesting Attorney-General to institute contempt proceedings for failure to comply with commands of Chancery Court decrees	3
Resolution requesting Attorney-General to compel water company to treat all water derived for public potable purposes in accordance with the terms of permit issued by this department for the distribution of water	1
Resolutions requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:10-1	7
Resolutions requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:11-1	2
Resolutions requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of R. S. 58:11-14 through 18	3
Resolutions requesting Attorney-General to discontinue proceedings instituted pursuant to the provisions of Chapter 146, P. L. 1939	2
Resolutions requesting Attorney-General to hold in abeyance action instituted pursuant to the provisions of Chapter 146, P. L. 1939	2
Resolutions rescinding terms of notices instituted pursuant to the provisions of R. S. 58:11-1	2

Resolution rescinding terms of notice issued pursuant to the provisions of Chapter 308, P. L. 1942	1
Resolutions rescinding terms of notice issued pursuant to the provisions of R. S. 58:12-3	2
Resolutions rescinding permits relating to the construction and operation of water supplies and removing said supplies from Department's list of approved water supplies	2
Resolutions transferring permits for the distribution of water from one utility to another utility	2
Resolutions granting extension of time for a period of two years' approval of plans and specifications for sanitary sewer systems and sewer extensions	2
Resolutions granting extension of time for submission of detailed plans for sewage treatment plants and sewer systems and authorizing further action to be held in abeyance relative to notices issued pursuant to the provisions of R. S. 26:2-43	5
Resolution approving sewage treatment plant units as a temporary measure pending tests on a biological pilot plant and the construction of a wastes treatment plant	1
Resolution approving a proposed general scheme of a sewerage system	1
Resolutions granting permission for licensed operators to operate more than one public water treatment plant, public sewage treatment plant and public water supply system	6
Resolution appointing employees of the Passaic Valley Water Commission as special watershed inspectors of the Department, activities limited to the Passaic River watershed above the point from which the Passaic Valley Water Commission diverts water for public potable purposes	1
Resolution reclassifying license required at water treatment plant in accordance with the provisions of R. S. 58:11-14 through 18	1
Resolution denying application to establish a factory	1
Resolution denying application for approval of plans and specifications for a sanitary sewer system	1

FLUORINE IN WATERS

During the year numerous requests were received by the Department for information as to the fluorine content in the public potable water supplies in New Jersey. Such requests were probably induced by the publicity given to dental health programs regarding the effect of fluorides on dental caries, and to recent litigation arising in southern New Jersey as a result of the release of fluorine fumes by certain manufacturing establishments located in this general area. In view of the interest shown in this matter it is believed advisable to preface the remarks pertinent to this subject with a statement as to a certain standard on fluorine content.

The United States Public Health Service Drinking Water Standards for 1946, superseding the standards adopted September 25, 1942, and recommended by the Advisory Committee on the Revision of the 1925 Drinking Water Standards, were approved by the Acting Administrator of the Federal Security Agency on February 6, 1946. In paragraph 4.21 of the said standards, under the general heading of Chemical Characteristics, it is provided

that "The presence of ... fluoride in excess of 1.5 p.p.m. ... shall constitute grounds for rejection of the (water) supply."

From 1935 to 1944 fluorine determinations were made upon water samples from some of the State's public water supplies. During the current fiscal year the Bureau of Engineering and Sanitation initiated the collection of samples for fluorine determinations from all of the public potable water supplies in New Jersey as well as from certain surface waters in this State. As a result of this most recent sampling survey, it is concluded that:

1. The fluorine content of the surface waters in New Jersey did not exceed the standard set by the United States Public Health Service in any instance. A total of 112 samples was collected from surface waters throughout the State during this phase of the survey.

2. Three public water supplies, all in southern New Jersey, exceeded the standard set by the United States Public Health Service in the matter of fluorine content. These supplies, derived from drilled wells, serve Woodbury, Woodstown and Pitman Camp Meeting Association. In only one case has a drastic increase resulted—in 1935 the fluorine content of the Pitman Camp Meeting Association's supply was 0.3 p.p.m. (part per million), whereas in 1946 the fluorine content was 1.8 p.p.m. The fluorine content of the Woodbury supply was 1.4 p.p.m. in 1935; 1.5 p.p.m. in 1944; and, 1.6 p.p.m. in 1946. The fluorine content of the Woodstown supply was 2.4 p.p.m. in 1938; 1.8 p.p.m. in 1944; and, 2.3 p.p.m. in 1946.

3. Ninety-nine per cent of the public water supplies surveyed in New Jersey during the current fiscal year delivered a water to consumers containing fluorine in quantities less than the maximum limit set by the United States Public Health Service.

LICENSING ACT

Chapter 295, P. L. 1946 (now R. S. 58:11-18.10, et seq.) was approved by the Governor on May 6, 1946. This law, entitled "An act to provide for the examination and licensing, under the direction of the Department of Health of the State of New Jersey, of superintendents or operators of public water treatment plants, public sewage treatment plants and public water supply systems," was sponsored by the Department in co-operation with the New Jersey Sewage Works Association and the New Jersey Section of the American Water Works Association.

The new law was designed to effect the purposes of the original licensing act (Chapter 23, P. L. 1918) and the supplement (Chapter 206, P. L. 1938), and, to strengthen those acts particularly from the administration standpoint.

Into the Department's considerations leading to the sponsoring of the new law, there entered the opinion and decree issued by Vice-Chancellor Charles M. Egan on January 9, 1942 and January 23, 1942 respectively, in the case of the Department vs. the City of Hoboken and the opinion rendered by the State Department of Law under date of March 8, 1945. The Vice-Chancellor had ruled that the Department did not have the au-

thority to define what the Legislature's term "water supply system" implied; and, he said further "... Such right to define resides in the courts. When the Legislature fails to clarify a term of doubtful meaning, then the courts, if called upon, will define, interpret, or construe the statutory enactment. ..."

Based upon the aforesaid opinion of the Vice-Chancellor, the State Department of Law advised the Department under date of March 8, 1945 that the licensing acts (Chapter 23, P. L. 1918 and Chapter 206, P. L. 1938) did not apply to operators of water supply systems. Licensing of such operators was, therefore, suspended immediately. The new law restores the Department's authority to license operators or superintendents of water supply systems.

The new law did not repeal the old statutes nor did it affect the Tenure Act, Chapter 234, P. L. 1941. Section 12 (now R. S. 58:11-18.21) provides:

"58:11-18.21. In so far as the provisions of this act (58:11-18.10 et seq.) are inconsistent with the provisions of any act, general or special, the provisions of this act (58:11-18.10 et seq.) shall be controlling, but nothing in this act (58:11-18.10 et seq.) contained shall be construed to repeal or in anywise impair the provisions of chapter two hundred thirty-four of the laws of one thousand nine hundred and forty-one, and said last mentioned act shall also be applicable to persons licensed under this act (58:11-18.10 et seq.)."

The Board of Examiners is appointed annually to give examinations for licenses. The members of the Board for the year ending August 31, 1947 are as follows:

Name	Address
Howard C. Banks	Wildwood, New Jersey
Maurice Brunstein	Atlantic City, New Jersey
P. N. Daniels	Trenton, New Jersey
Edward P. Molitor	Morristown, New Jersey
George R. Spalding	Oradell, New Jersey
R. P. Johns	State Department of Health
S. A. Kowalchik	State Department of Health
R. S. Shaw	State Department of Health

The new licensing law includes definitions of the important terms: (1) "public water treatment plant," (2) "public sewage treatment plant" and (3) "public water supply system." The latter is of particular interest in the light of the foregoing judicial and legal opinions and also because of its effect upon the Department's jurisdiction over small water supplies.

EFFECT UPON SMALL WATER SUPPLIES

The new licensing act as a bill originally sponsored by this Department defined a "public water supply system" as "a system comprising structures which operating alone or with other structures result in the derivation, conveyance (or transmission) or distribution of water for potable or domestic purposes to consumers in eight (8) or more dwellings or properties; this definition does not include a public water treatment plant." The bill was amended in the Legislature, "eight (8)" being deleted and in lieu thereof "twenty" being substituted in the aforesaid definition.

The Department had by a resolution adopted on December 6, 1932, based upon opinions rendered by the Attorney-General, limited its jurisdiction and supervision as to safeness to water supplies serving eight (8) or more dwellings and/or properties. This policy was followed thereafter but it became inconsistent and without legal standing upon the enactment of the new licensing act. Therefore, the following resolution was adopted on July 9, 1946:*

"WHEREAS, The Department of Health of the State of New Jersey, at a meeting held on the ninth day of July, A. D. one thousand nine hundred and forty-six, has found and determined that the Members of the Department at a meeting held on December 6, 1932, based upon opinions rendered by the Attorney-General of the State of New Jersey on April 25, 1929, May 8, 1929, April 26, 1932, October 1, 1932, and October 11, 1932, relating to the enforcement of the provisions of Chapter 253, P. L. 1909, being an act of the New Jersey Legislature entitled 'A supplement to an act entitled "An Act to secure the purity of the public supplies of potable waters in this State," approved March seventeenth, eighteen hundred and ninety-nine,' adopted a preamble and resolution expressing its opinion that, "... in order for sources of water supplies to be considered as public potable supplies, they must represent sources of supply from which water is distributed or sold to consumers for potable purposes in eight or more dwellings and/or properties, and where water from sources of supplies is distributed or sold to less than said number of dwellings and/or properties, such supplies will hereafter be considered as private sources of water supplies and which supplies come within the jurisdiction of local boards of health having control over the territory wherein such supplies are located,' and, that subsequent to the aforesaid December 6, 1932 the Department has issued permits to certain owners and/or purveyors of public potable water supplies to derive water from certain sources, construct works for the collection and/or treatment of said water, and to distribute water from said sources of supply for public potable purposes, and, furthermore, has supervised the operation of such water plants with respect to the purity of potable water furnished thereby under the applicable provisions of Title 58 of the Revised Statutes; and

"WHEREAS, Chapter 295, P. L. 1946, approved May 6, 1946, defines a 'public water supply system' as a system comprising structures which operating alone or with other

* This resolution was prepared prior to June 30, 1946, and is included here for continuity of the record even though it was adopted nine days after the expiration of the fiscal year.

structures result in the derivation, conveyance (or transmission) or distribution of water for potable or domestic purposes to consumers in twenty or more dwellings or properties; and

"WHEREAS, The water supply owners and/or purveyors set forth in the following resolution distribute or sell water to consumers for potable purposes in eight or more dwellings and/or properties and do not own or control a water supply system comprising a system or systems which operating alone or with other structures result in the derivation, conveyance (or transmission) or distribution of water for potable or domestic purposes to consumers in twenty (20) or more dwellings or properties; therefore,

"Be It Resolved, By the Department of Health of the State of New Jersey, at a meeting held on the ninth day of July, A. D. one thousand nine hundred and forty-six, that permits issued to the owners and/or purveyors of potable water supplies to distribute water for potable purposes, and located as hereinafter listed, be and are hereby rescinded, and, that the Department discontinues its supervision, under the provisions of Chapter 253, P. L. 1909, now R. S. 58:11-1 through 58:11-6, of the operation of said potable water supplies with respect to the purity of water furnished; to wit:

Located In

Somerset Hills Land Corporation and
Twin Lakes Association
Frank G. Riddle
The Whippany Heights Improvement Association and Charles R. and Margaret Helen Ott
Alvin S. Hopping
Joseph R. Black
Mountain Heights Water Company, Inc.
Montville Realty Company (Lake Valhalla)
Estates of Peter J. Tuite and Helen T. Cronin
Estate of Aaron S. Hulse (Harvey N. Cassidy, Administrator)
Industrial Building and Loan Association (White Birch Colony)
Pine Valley Golf Club
Ada and Sarah Hantman
Alexander Hamilton Council Boy Scouts of America
J. T. Wilson
Lula A. Birdsall
Earl W. Cleveland
Hiram A. Cook Estate
Edwin P. Sweeten
and

Bernardsville, Morris County
Hampton, Hunterdon County

Hanover Twp., Morris County
Jefferson Twp., Morris County
Lincoln Park, Morris County
Lincoln Park, Morris County

Montville Twp., Morris County

Mount Arlington, Morris County

Mount Olive Twp., Morris County

Mount Olive Twp., Morris County
Pine Valley, Camden County
Randolph Twp., Morris County

Stillwater Twp., Sussex County
Washington Twp., Gloucester County
Washington Twp., Morris County
Washington Twp., Morris County
West Windsor Twp., Mercer County
Woodbury Heights, Gloucester Co.;

"Be It Further Resolved, That the interested owners and/or purveyors of water from the aforesaid sources of water supplies and the local boards of health of the municipalities involved be advised of this action."

CROSS-CONNECTIONS

Activities of the Bureau under the new cross-connection law, Chapter 308, P. L. 1942 (now R. S. 58:11-9.1 et seq.) have not been covered previously because of the curtailment of the annual report during the war.

The aforesaid law was enacted in November, 1942. The law is substantially the same in text as the bill which was prepared in the Bureau of Engineering in June, 1941, in accordance with the instructions of the Department at that time.

Chapter 13 of the Sanitary Code was repealed by the Department on January 12, 1943, in view of the discrepancies between it and Chapter 308, P. L. 1942. The law took precedence over the former Chapter 13 and it granted new and broader authority to the Department, to local boards of health and to public potable water supply purveyors in controlling cross-connections.

Permits in good standing under the former Chapter 13 of the Sanitary Code were replaced by permits issued in accordance with the new law. All local health and water authorities were advised of the law.

Permits are renewed annually, and, new permits are issued as applications are received and found to be in order. Inspections are made by engineers from the Bureau before new permits are issued.

Active permits as of June 30, 1946 are as follows:

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Arlington	E. I. du Pont de Nemours & Co., Inc.	49
Asbury Park	Keystone Laundries, Inc.	134
Atlantic City	Marbright Corporation (Hotel Chelsea)	12
Bayonne	American Radiator & Sanitary Corporation	3
Bayonne	Asiatic Petroleum Corporation	162
Bayonne	General Cable Corporation	163
Bayonne	Maiden Form Brassiere Co., Inc.	16
Bayonne	Tide Water Associated Oil Co.	179
Belleville	Eastwood-Nealley Corp.	14
Bloomfield	Clark Thread Company	5
Bloomfield	General Electric Company	4
Bloomfield	Oakes Mills Corporation	6
Bloomfield	Westinghouse Electric Corporation	1
Bogota	Continental Paper Company	130
Bridgeton	Martin Dyeing & Finishing Company	8
Bridgeton	E. Britchard, Inc. (Pearl Street Plant)	177
Bridgeton	E. Britchard, Inc. (Eagle Street Plant)	178
Burlington	United States Pipe & Foundry Company	2
Butler	American Hard Rubber Company	13
Butler	Pequanoc Rubber Company	9
Camden	Armstrong Cork Company	10
Camden	Camden Forge Company	17
Camden	Evanson & Levering Company	15
Camden	John R. Evans & Company	18
Camden	R. M. Hollingshead Corporation	153

Municipality	Permit Holder	Permit No.
Camden	Taylor, White Extracting Company	20
Carteret	Foster Wheeler Corporation	21
Carteret	Ichabod T. Williams & Sons	173
Chatham	Utility Laundry, Inc.	135
Clifton	Clifton Paper Board Company, Inc.	22
Clifton	Eureka Printing Company	23
Clifton (Delawanna)	Givaudan-Delawanna, Inc.	24
Clifton (Allwood)	Haberland Manufacturing Company	25
Clifton	Main Associates	26
Clifton	Tidewater Realty Company, Inc.	69
Dover	National Gypsum Company	147
East Orange	Crocker-Wheeler Electric Mfg. Company (Division of Joshua Hendy Iron Works)	27
East Orange (Bloomfield)	General Electric Company	152
East Orange	The A. P. Smith Manufacturing Company	28
Fair Lawn	Fair Lawn Finishing Company	187
Freehold	A. & M. Karagheusian, Inc.	30
Garfield	Samuel Hird & Sons, Inc.	31
Garwood	National Gypsum Company	32
Gloucester City	Armstrong Cork Company	175
Gloucester City	H & D—Lang Manufacturing Company	53
Gloucester City	The Hinde & Dauch Paper Company	53
Hackensack	Harper Terminal, Inc.	131
Haledon	Seyer Silk Dyeing and Finishing Company	34
Harrison	Crucible Steel Company of America	174
Harrison	Hyatt Bearings Division, General Motors Corporation	36
Harrison	RCA Victor Division of Radio Corporation of America	37
Hightstown	Hightstown Rug Company	35
Hillsdale	International Milk Company, Inc.	166
Hillside Township	Sunrise Dairies	161
Ho-Ho-Kus	Ho-Ho-Kus Bleachery	39
Hopewell	Rockwell Machine Company	169
Hopewell	St. Michael's Children's Home	146
Jersey City	Colgate-Palmolive-Peet Company	40
Jersey City	Consolidated Laundries Corp. (Lackawanna Laundry)	41
Jersey City	Dalesta Realty Corporation	42
Jersey City	Inland Steel Container Company	43
Jersey City	P. Lorillard Company, Inc.	44
Jersey City	Mancely, Inc.	46
Jersey City	Public Service Electric and Gas Company (West End Gas Works)	45
Jersey City	Schweitzer Paper Company	47
Kearny	Congoleum-Nairn, Inc.	48
Kearny	Koppers Company—Seaboard Division	50
Kearny	The Linen Thread Company, Inc.	54
Kearny	Swift and Company	55
Kearny	United Cork Companies	56
Kearny	Western Electric Company, Inc.	57
Keyport	Armstrong Cork Company	58
Lawrence Township (Lawrenceville)	Morris Hall, Home for the Aged	143
Linden	Simmons Company	59
Linden	Volute, Inc.	60
Little Falls	The Beattie Mfg. Company	61
Little Falls	Little Falls Laundry Company	62

Municipality	Permit Holder	Permit No.
Long Branch	Monmouth Memorial Hospital	63
Mahwah	American Brake Shoe Company (Brake Shoe Castings Division)	156
Manasquan	Block Ice & Cold Storage Company	141
Milltown	Alsol Corporation	76
Milltown	Michelin Realty Corporation	77
Milltown	The Personal Products Corporation	154
Millville	Armstrong Cork Company	64
Millville	Millville Manufacturing Company	65
Montclair	Montclair Golf Club	117
Morris Plains	American Home Foods, Inc. (G. Washington Division)	170
Newark	Celanese Corporation of America	66
Newark	Merchants Refrigerating Company	67
Newark	White Laboratories, Inc.	68
New Brunswick	The Consolidated Fruit Jar Company	139
New Brunswick	Gulbenkian Seamless Rug Company	157
New Brunswick	Johnson & Johnson	145
New Brunswick	Middlesex Farm Dairy, Inc.	142
New Brunswick	National Musical String Company	148
New Brunswick	Frank Schmidt	150
New Brunswick	Zonite Products Corporation	180
Newton	Sussex Dye & Print Works, Inc.	102
North Haledon	Ideal Farms, Inc.	168
Ocean City	The Flanders Hotel Company	132
Ocean City	Jersey Central Power & Light Company	137
Orange	Thomas A. Edison, Inc.	51
Orange	Monroe Calculating Machine Company	155
Passaic	Acheson Halden Realty Corporation	72
Passaic	Andrew McLean Company	75
Passaic	Manhattan Print Works—Division of Waldwich Company	74
Passaic	The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.	78
Passaic	The Okonite Company	79
Passaic	The Pantasote Company	80
Passaic	J. L. Prescott Company	185
Passaic	Robins Conveyors, Inc.	81
Passaic	United States Rubber Company	82
Passaic	United Wool Piece Dyeing & Finishing Company	73
Paterson	Associated Dyeing and Printing Company of New Jersey, Inc.	84
Paterson	B. & G. Interstate Products, Inc.	186
Paterson	Delta Piece Dye Works, Inc.	158
Paterson	Dolphin Jute Mills	119
Paterson	Duchess Dyeing Company	189
Paterson	Dunlop Mill No. 1 Properties, Inc.	83
Paterson	Eastwood Realty Company	85
Paterson	Grobart Mills	86
Paterson	Hall Mills	87
Paterson	The Linen Thread Company, Inc.	89
Paterson	Madison Park Realty Co., Inc.	90
Paterson	The Manhattan Shirt Company	91
Paterson	Public Service Electric and Gas Company	92
Paterson	Sterling Properties, Inc.	93
Perth Amboy (Barber Station)	American Smelting & Refining Company	11
Perth Amboy	Barber Asphalt Corporation	138
Perth Amboy	Chesbrough Mfg. Company, Consolidated	94

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Perth Amboy	General Cable Corporation	120
Perth Amboy	International Smelting and Refining Company	95
Phillipsburg	Sanco Piece Dye Works, Inc.	105
Plainfield	International-Plainfield Motor Company	96
Rahway	Merck and Company, Inc.	106
Raritan	Raritan Mills	97
Riegelsville	Riegel Paper Corporation (Hughesville)	101
Riegelsville	Riegel Paper Corporation (Warren Glen)	98
Rochelle Park	Heiss & Sons, Inc.	165
Rockaway	Rockaway Properties, Inc.	118
Roseland	Henry Becker & Son, Inc.	160
Roselle	The Watson-Stillman Company	167
Salem	Gayner Glass Works	99
Sewaren	Royal Petroleum Corporation	172
South Bound Brook	The Ruberoid Company	100
Trenton	The Acme Rubber Manufacturing Company	109
Trenton	American Bridge Company	184
Trenton	American Steel and Wire Company	110
Trenton	Crescent Insulated Wire & Cable Company	111
Trenton	Fisher Body Ternstedt Division—General Motors Corporation	151
Trenton	Panelyte Division of St. Regis Paper Company	112
Trenton	Princeton Worsted Mills	115
Trenton	Public Service Electric and Gas Company	116
Trenton	John A. Roebling's Sons Company	113
Trenton	Joseph Stokes Rubber Company	114
Trenton	U. S. Naval Air Facility	144
Union Township	Gemex Company	167
Union Township	Ideal Dairy Farms	164
Union Township	Metals Disintegrating Company, Inc.	171
West Orange	Thomas A. Edison, Inc.	52
Wharton	The Wharton Realty Company	188
<i>Total No.</i>		161

ORDER OF NECESSITY

The term "Order of Necessity" or "Certificate of Necessity" is a nomenclature which, among municipal and interested state agencies, has been accepted by usage to mean an "Order" issued by the Department of Health of the State of New Jersey pursuant to the provisions of R. S. 40:1-16 (subdivision "g"), which authorizes exceptions to the limitations of the Municipal and County Bonding Act. In substance, this section provides that if it is found by order of the State Department of Health, which is authorized to make an order in a proper case, that the expenditure and every part thereof is necessary to protect the public health and to prevent or suppress a present menace to public health of sufficient gravity to justify an incurrence of debt in excess of statutory limitations, and that no less expensive method of preventing or suppressing such menace exists, the municipality or county in receipt of such an order may incur a debt in excess of the statutory limitations for that purpose.

During this fiscal year the Department issued two such orders: the Borough of Oaklyn, Camden County, New Jersey, and the Borough of Fair Lawn, Bergen County, New Jersey. Each project related to the construction of a sewerage system.

Although this authorization to exceed their debt beyond the statutory limitations for the construction of sewerage projects enabled municipalities to prevent or suppress a present menace to public health, this method of raising funds apparently did not meet with the full approval of the State agencies exercising control over municipal financing, and many of the municipal bonding firms, because R. S. 40:1-16 merely permitted a municipality or county to incur a debt in excess of its statutory limitations to build the works but did not provide any machinery for the financing and operation of the sewerage systems. The indications are that as a result of this disapproval, coupled with the fact that other State laws relating to the establishment of joint sewer commissions and sewer rentals were lacking in flexibility, Senate Bill No. 262 was promulgated and presented to the legislators for enactment. This new proposed legislation had for its purpose the establishment of modern and effective governmental machinery for constructing, financing and operating comprehensive sanitation projects.

Senate Bill No. 262 was enacted into law and approved by the Governor on April 23, 1946. The title of the act is Chapter 138, P. L. 1946—"An act relating to the authorization, acquisition, financing and operation of sewage disposal systems by or on behalf of any county or any one or more municipalities, providing for the creation of sewerage authorities to undertake the same, for the issuance of bonds and other obligations therefor, and for service charges to meet the expense thereof. . . ."

It is believed that Chapter 138 provides a more expedient tool for the procurement of funds necessary for the construction of sewerage projects. And, for certain reasons stated hereinafter, it is hoped that the interested municipalities will take advantage of the provisions contained in this act rather than appeal to the Department for an "order of necessity."

The establishment of joint sewerage commissions and joint meetings at a municipal level is not new in this State, and experience has proved that these commissions and meetings operate effectively and efficiently. Neither is the charging of sewer rents a new procedure in the State. The records of the Department show that about 34 municipalities, excluding those located in the area under the jurisdiction of the Passaic Valley Sewerage District, operate under the sewer rental with apparent satisfaction. However, in the establishment of sewerage authorities under the provisions of Chapter 138, further advantages are to be gained which, it is believed, will provide more flexibility that will result in many cases in higher efficiencies in the construction, financing and operation of sewerage projects.

One of the many noteworthy features of the act is that the sewer rentals may be based or computed, among other things, upon "...any other special matter affecting the cost of treatment and disposal thereof, including chlorine demand, biochemical oxygen demand, concentration of solids and chemical composition." This provision is of particular importance in a case where industrial wastes are discharged into a municipal sewerage system. One familiar with the art of industrial wastes treatment knows that the satisfactory treatment of industrial wastes is a difficult and complex one, and usually expensive. Not infrequently sufficient land area is not available on the premises of the industrial sites to construct the necessary treatment works; therefore, if it be the obligation and policy of a municipality to accept the industrial wastes into its sewerage system for treatment, it appears only just that the industry be charged for its proportionate share of the increase in cost in the treatment of its wastes. A concrete example of the efficaciousness of this method of charging for the treatment of industrial wastes was demonstrated in the City of New Brunswick. This was accomplished by the adoption and enforcement of an ordinance which set forth a schedule of rates upon the basis of the quantity and quality of the industrial wastes. From the information available, it is concluded that operation under this ordinance, which, to the best knowledge of the Department, was the first of its kind in this country, proved satisfactory to all parties concerned.

Many municipalities, joint commissions and joint meetings are studying the mechanics and merits of Chapter 138, and it is believed that during the ensuing fiscal year a number of sewerage authorities will be organized under the provisions of this act.

FACTORIES WITHIN POTABLE WATERSHEDS

In the annual report for the fiscal year 1945, reference was made to the increase of stream pollution produced by industrial plants. It was assumed that with the end of the war activities, the pollution problem produced by the discharge of industrial wastes into State waters would decrease; that there would be a recession in the industrial activities in this State. The assumption was wrong; instead of a recession there has been an increase in the establishment of industrial plants, and the problem of the disposal of industrial wastes has become intensified.

The increase in industrial activities is reflected in the amount of water supplied by one water purveyor in a section of the State that experienced a marked increase in industrial plant expansion during the war years. The following shows the increase in the water supplied by said purveyor:

Date	Average Daily Consumption Million Gallons/Day
November, 1938.....	5.000
November, 1940.....	5.047
November, 1944.....	10.700
November, 1945.....	10.625
April, 1946.....	11.662
May, 1946.....	11.976

Industrial expansions are not only occurring in well defined industrial areas but have extended to residential and rural areas which sometimes are within watersheds, the waters of which are later used for public potable purposes. In the latter areas, the provisions of "An act providing that factories, workshops or places for the manufacture of materials or goods, hereafter established within the watershed of streams above the point at which public supplies of potable water are taken, shall obtain from the Department of Health of the State of New Jersey a permit to locate or establish such factories, workshops or places" (Chapter 280, P. L. 1920—R. S. 58:10-17 through 21), apply. And in those areas outside of potable watersheds, not provided with a sewer system and where the industry must dispose of its own domestic sewage and industrial wastes, the provisions of R. S. 58:12-3 apply: "Pollution of waters by sewage prohibited."

In view of the provisions of R. S. 58:10-17; and as a result of interest shown by water purveyors and local health agencies, numerous establishments were advised of the aforesaid statute and requested to make application for a permit in accordance with the appropriate requirements. During the year a total of 16 permits was granted by the Department to various manufacturing establishments to locate on potable watersheds. In many instances it was necessary to hold hearings for the purpose of assuring that the potability of the local water supply would not be adversely affected or the health of the public endangered through the discharge of harmful industrial wastes.

Products manufactured by those establishments granted permits consist of the following: Tools and plastic materials; rubber reclamation and processing of rubber products; fabrication of paperboard; cellulose acetate molding materials; textiles; pipes; aluminum products; paper materials; lacquers and resins; wallboard and roofing compounds; elastic materials; and silk and rayon products. It is evident that the multiplicity of types of wastes accruing from the manufacture of said products has presented numerous problems.

All of the aforesaid permits granted by this Department, with one exception, are for the establishment of factories on watersheds in northern New Jersey. The number granted during the year is indicative of the industrial expansion occurring within the State.

NEW JERSEY SHIP CANAL

In accordance with a certain act of authorization by Congress, a special board of United States Army Engineer Officers, under the direction of the Division Engineer of the North Atlantic Division, made surveys and prepared plans and estimates for a proposed "Intra-coastal Waterway Canal" through the State of New Jersey, interconnecting the Delaware River at Bordentown and Raritan River at Sayreville.

Briefly, the plan provided for a canal water level 10 feet above mean low water, with a least water depth of 25 feet, a bottom width of 250 feet and side slopes of $2\frac{1}{2}$ feet horizontal to 1 foot vertical.

To create and maintain a pool level in the canal at the 10-foot level, it was originally proposed to build a dam across the canal as it entered the Delaware River, and a dam across the Raritan River at Sayreville just below the mouth of the South River. The dam across the Raritan River would pool the waters up to the Five Mile Dam above New Brunswick. Each of these dams was to be provided with adequate gates to pass flood discharges, and with locks for the passage of navigation. The length of the waterway would be 31.5 miles. For a distance of about 15 miles, it would be in a deep cut through land at an elevation ranging generally from 75 to 100 feet above sea level, rising to a maximum of 144 feet.

In order to compensate for the losses occasioned by evaporation, soil percolation and the volume of water necessary to operate the locks, it was originally proposed to divert into the canal a greater portion of the water from the Raritan River and certain of its tributaries. To accomplish this end, it was proposed to construct a storage reservoir at the junction of the North and South Branches of the Raritan River which would impound waters to a level of 105 feet above mean sea level.

There were no official records available to the Department stating specifically the exact volume of water that would be diverted from the Raritan River and its tributaries, or the periods of the season that such diversion would take place. The reason? An Army secret! However, it was concluded from statements made by persons conversant with the project that it would require approximately 520,000,000 gallons daily to operate the canal and that when the water level in the storage reservoir would be lowered below the crest of the dam and the canal was not in operation, only 40,000,000 gallons would be released daily until the storage of the reservoir was refilled to its capacity. (Note that the United States Geological Survey

records indicate that the average summer flow at the junction of the North and South branches of the Raritan River is about 270,000,000 gallons per day.)

The Department was concerned over the probable effect of this canal upon the pollution of the Raritan River and the municipal and industrial wastes treatment plant structures which were constructed by reason of the program initiated by the Department to clean up the pollution of the Raritan River. Since substantial progress has been made to this end, the Director of Health instructed the Bureau of Engineering and Sanitation to review the project and report upon the probable effects from the standpoint of pollution. Coincidentally, Governor Walter E. Edge requested a similar report. Accordingly, a study was made and reported upon in February, 1945. Succinctly summarized the studies indicated:

1. That the sewage treatment plant, and certain appurtenant sewer trunk lines, and sewage pumping stations owned and operated by the City of New Brunswick, Borough of Highland Park, and Borough of South River, will be destroyed. The costs of these structures, at the present day index, are estimated at \$805,000; \$375,000; and \$235,000, respectively; an aggregate of \$1,415,000.
2. That the sewage treatment plant owned and operated by the borough of Sayreville would require the installation of pumping equipment having an equivalent capacity of 2,000,000, more or less, gallons per day to raise the sewage effluent from the plant into the proposed Intra-coastal Waterway, or to pump the same into the Raritan River below the proposed dam at Sayreville, New Jersey.
3. That when only 40,000,000 gallons per day are released from the storage basin in the Raritan River at times of dry weather flow, conditions will be created conducive to the production of nuisances that will cause injury to the health, comfort, or property of certain inhabitants of this State.
4. That the recreational and shellfish propagation assets of the Raritan Bay may be destroyed, thus depriving a source of livelihood to many thousand citizens of the State of New Jersey.

In August 1945, the Army Engineers forwarded to the Department for review and comment a report entitled "Effect of New Jersey Ship Canal on Pollution in the Raritan River," prepared by Mr. M. LeBosquet, Jr., Sanitary Engineer, United States Public Health Service. In a general statement, he reported that based upon an examination of the local pollution situation he was of the opinion that the construction of a dam at Sayreville would be detrimental to the solution of the pollution problem in the Raritan River; and he presented a thorough analysis of the data upon which the opinion was based. On October 2, 1945, a letter issued to Mr. LeBosquet, advising him of the Bureau's concurrence in his conclusion and commenting in detail on his report; a copy of this letter was forwarded to the New York District Office of the United States Engineers.

It appears that as a result of the reports issued by the Department of Health and Mr. LeBosquet, the Army Engineers revised the plan as follows:

In lieu of a dam across the Raritan River below the South River, it is now proposed to construct a dam across the South River at its mouth, and excavate a deep water channel along the southerly shore of the Raritan River to the channel in Raritan Bay; and instead of diverting from the Raritan River the water needed to operate the canal, the diversion would be from the Delaware River and the source would be supplied by an impounding reservoir to be located on a tributary in the upper reaches of the Delaware River. This proposed plan has not been adopted as yet by Congress. The indications are that the project is being promoted actively by its proponents.

DELAWARE RIVER

The Department, in effectuating its program for the control of the future pollution and the correction of existing pollution of the waters of the interstate Delaware River, has been guided by the grossly polluted condition of the Delaware River adjacent to the Cities of Camden and Gloucester, a condition caused, in a large measure, by the discharge of untreated sewage and other polluting matter from the sewer systems owned and operated by these municipalities. The extent of this pollution was demonstrated by a survey of the Delaware River by the Bureau engineers in the Summer of 1943, in which it was shown: (1) that the waters of the river were absolutely devoid of dissolved oxygen in the area from Palmyra to Raccoon Island, a distance of 21.6 miles. (This stretch of the river holds approximately 86 billion gallons of water. Waters devoid of oxygen are, figuratively speaking, absolutely dead and worthless for any useful purpose; and, in addition, fish and aquatic life cannot survive, and an aerial nuisance is created, jeopardizing the health, comfort or property of any of the inhabitants of this State), and (2) that that part of the river from the mouth of Pennypack Creek to Arnold's Point, a distance of 64 miles, contained less than 50% saturation of dissolved oxygen. (This section of the lower Delaware River contains upwards of 300 billion gallons of water.)

The above areas are within that part of the Delaware River defined by Chapter 146, P. L. 1939, as Zone III which extends from the mouth of Pennypack Creek to the Pennsylvania-Delaware boundary line. This law provides in part:

"ARTICLE III

"In order to put and maintain the waters of the interstate Delaware river and its west branch as aforesaid, in a clean and sanitary condition, no sewage, industrial wastes or other polluting matter shall be discharged into, or be permitted to flow or fall into, or be placed in any respective zone of the interstate Delaware river as herein established;

unless such sewage, industrial waste or other artificial polluting matter shall first have been so treated as to produce an effluent which will meet the following minimum requirements:

"Zone 3 . . .

"(3) Such effluent shall show a reduction of at least fifty-five per centum of the total suspended solids and a reduction of not less than thirty-five (35) per centum of the bio-chemical demand. (It is the intent of this requirement to restore the dissolved oxygen content of the river water in this zone to at least fifty (50) per centum saturation. To accomplish this it may be necessary in the case of certain wastes, to obtain reductions greater than those required under this item.)"

Although the Department issued notices on November 14, 1939, under the provisions of Chapter 146, P. L. 1939 and R. S. 58:12, to the Cities of Camden and Gloucester requiring compliance with the aforesaid acts by November 1, 1941, and although the Attorney-General was requested on November 14, 1941, to institute the necessary legal proceedings to compel the aforesaid cities to comply with these notices, the cases were not heard in the Court of Chancery until February 15, 1943. At that time arguments were presented by the solicitors for Camden, Gloucester, the State of New Jersey and the Interstate Commission on the Delaware River Basin. Additional time was requested to prepare and file briefs, and Vice-Chancellor Woodruff complied with this request. On August 17, 1944, the City of Gloucester entered into a consent decree.

The case of the Department of Health vs. City of Camden was brought before Vice-Chancellor Woodruff on October 17, 1944. After hearing testimony presented by witnesses for the State, Camden consented to the issuance of a decree dated October 17, 1944, subject to a certain stipulation, to wit:

"IN CHANCERY OF NEW JERSEY

139/470

"Between

DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY,

Complainant,

and

THE CITY OF CAMDEN AND THE CITY OF GLOUCESTER,
MUNICIPAL CORPORATIONS OF THE STATE OF NEW
JERSEY,

Defendants.

On Bill, &c.

FINAL DECREE

"This matter being opened to the Court by Robert Peacock, Esquire, appearing for Walter D. Van Riper, Attorney-General, of counsel with the complainant, and John L. Morrissey, Esquire, of counsel with defendant, The City of Camden, and the Court having heard the testimony of witnesses produced by complainant and having heard the

argument of respective counsel, and it appearing to the Court that complainant is entitled to relief as hereinafter provided:

"It is, on this 17th day of October, 1944, ORDERED, ADJUDGED AND DECREED that a writ of injunction do forthwith issue out of and under the seal of this Court directed to the defendant, The City of Camden, a corporation of the State of New Jersey, commanding it, its officers, servants and agents to desist and refrain absolutely from polluting the waters of the Delaware River and Cooper River and their tributaries, by the discharging therein at Camden in the County of Camden, of sewage and other polluting materials in such manner as to cause or threaten injury to any of the inhabitants of the State of New Jersey in the vicinity of the said Delaware River and Cooper River and their tributaries either in their health, comfort or property, as follows:

"The City of Camden shall complete plans and specifications for a comprehensive sewerage system and sewage treatment plant or plants designed to cause the abatement of its pollution of the Delaware and Cooper Rivers, said plans and specifications to be approved by the New Jersey Department of Health by May 1, 1946.

"The time within which the defendant, The City of Camden, must comply with the said decree and cease its pollution of the Delaware and Cooper Rivers shall be extended until such time as the materials and labor required for the construction of the said comprehensive sewerage system and sewage treatment plant or plants approved as aforesaid by the Department of Health of the State of New Jersey are made available for general civilian use or until such time as the Court shall direct as set forth in the stipulation filed with this Court and made a part hereof by reference.

"Respectfully advised.

ALBERT S. WOODRUFF, P. C.

"I hereby consent to the above decree.

JOHN L. MORRISSEY, *Solicitor for Defendant, The City of Camden.*

"IN CHANCERY OF NEW JERSEY
139/470

"Between

DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY,

and

THE CITY OF CAMDEN AND THE CITY OF GLOUCESTER,
MUNICIPAL CORPORATIONS OF THE STATE OF NEW
JERSEY,

Complainant,

Defendants.

On Bill, &c.

STIPULATION

"It is hereby stipulated between Walter D. Van Riper, Attorney-General of the State of New Jersey, Solicitor for Complainant, by Robert Peacock, Deputy Attorney-General, and John L. Morrissey, Solicitor for the defendant, The City of Camden, as follows:

"1. The City of Camden will consent to a decree of injunction in the within matter, which decree shall contain the following provisions:

"A. The City of Camden shall complete plans and specifications for a comprehensive sewerage system and sewage treatment plant or plants designed to cause the

abatement of its pollution of the Delaware and Cooper Rivers, said plans and specifications to be approved by the New Jersey Department of Health by May 1st, 1946.

"B. The time within which the defendant, The City of Camden, must comply with the said decree and cease its pollution of the Delaware and Cooper Rivers shall be extended until such time as the materials and labor required for the construction of the said comprehensive sewerage system and sewage treatment plant or plants approved as aforesaid by the Department of Health of the State of New Jersey are made available for general civilian use or until such time as the Court shall direct as set forth in the stipulation filed with this Court and made a part hereof by reference.

"2. The clause 'until such time as the Court shall direct' shall mean until such time as the City of Philadelphia shall complete plans and specifications for the construction of a comprehensive sewerage system and sewage treatment plant or plants and advertise the same for bids for immediate construction."

"WALTER D. VAN RIPER,
Solicitor for complainant,
"By ROBERT PEACOCK,
Deputy Attorney-General.
"JOHN L. MORRISSEY,
Solicitor for defendant,
The City of Camden."

Subsequent to the issuance of this decree the City of Camden retained a firm of consulting engineers to design and submit to the Department for approval, plans and specifications showing and describing a proposed system of intercepting sewers and sewage treatment plant. As an initial step, the consulting engineers prepared a preliminary report setting forth the design factors and the proposed method of treatment, and submitted the same to the Department for study and comment. This led to a series of conferences between the consulting engineers and the engineers of the Department. After suggesting certain changes and revisions respecting the proposed design, the following letter issued to the consulting engineers on May 10, 1946:

"Re: Proposal contained in your letter of April 19, 1946, respecting the method of treatment and the design factors for the sewage treatment plant proposed for the City of Camden, New Jersey.

"I am advised that the interested engineering representatives of the Department have completed the study of the sewage treatment plant proposal outlined in your aforementioned letter of April 19, 1946, and that based upon the studies they are prepared to recommend the approval of the proposed method; to wit, primary sedimentation having a detention period of 2½ hours and an overflow rate of 725 gallons per square foot on the basis of 53 million gallons per day; trickling filters of the size and capacity that will cause an over-all reduction in biochemical oxygen demand of seventy per centum (70%); secondary sedimentation having a detention period of 2½ hours and an overflow rate of 725 gallons per square foot on the basis of 53 million gallons per day; and disposal of sludge by vacuum filtration and incineration, subject particularly to the following conditions:

"1. That the effluent produced shall meet the minimum requirements set forth in Zone III of Chapter 146, P. L. 1939; and

"2. That these minimum requirements be subject to such revision from time to time as the Department of Health of the State of New Jersey may determine to be necessary or advisable for the abatement or control of the pollution of the waters of the Delaware River and its tributaries in order to assure that the discharge of such effluent into the said waters shall not cause or threaten injury to the inhabitants of this State either in their health comfort or property.

"I concur in the above.

"Very truly yours,

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

(The Court of Chancery on a petition made on May 3, 1946 by the City of Camden extended the time for the submission of final plans and specifications to the Department to November 1, 1946.)

Action by the Court of Chancery in the Camden case establishing responsibility for the correction of existing gross pollution in the lower Delaware River left the way open to proceed against others discharging polluting matter into the Delaware River.

Inasmuch as that part of the Delaware River extending from the New York boundary line to the head of tidewater at Trenton has been established by Chapter 146, P. L. 1939, as Zone I, and provides that that part of the river is to be restored and maintained at the highest possible sanitary quality, the Department proceeded against a municipality and certain industries discharging the major portion of the polluting matter into that section of the river; to wit:

The Town of Phillipsburg, having been commanded by a certain writ of injunction issued out of the Chancery Court on September 28, 1914, to cease the unlawful pollution of the Delaware River, above the point at which the City of Trenton obtains its source of potable water, by the discharge therein of sewage and other polluting matter from its sewer system and drains, and to dispose of its sewage and other polluting matter as shall be approved by the Department, elected to install treatment works consisting of the "Landreth" method of direct oxidation. Inasmuch as this method of treatment had not been tried in the State of New Jersey, the Department on August 12, 1919, acquiesced to the construction of the treatment works subject to certain conditions, particularly:

"Resolved, That if the inhabitants of the Town of Phillipsburg are desirous of installing a plant for the treatment of sewage by this method, this Department will interpose no objection for the construction of such a plant as an experimental installation and its operation for a period of one year. . . ."

This plant was constructed in 1920. Subsequent inspections disclosed that the "Landreth" phase of the process did not produce the results expected, and, therefore, was abandoned. However, the screens, lime feeder,

the settling tanks and sludge beds, which had been part of the entire process, were retained and continued in service. Although these units were inadequate to give the ultimate treatment desired, partial treatment was provided which was removing a substantial portion of the objectionable pollution. This plant continued in operation until July 9, 1945, at which time heavy torrential rains flooded areas in Phillipsburg and vicinity virtually wiping out the treatment plant structures, thus making it necessary to discharge raw sewage and other polluting matter into the Delaware River. Although the treatment plant structures were partially rehabilitated since that time, raw sewage and other untreated polluting matter were still permitted to flow into the river through pumping station by-passes and certain sewer outlets. Therefore, on December 5, 1945, the Department requested the Town of Phillipsburg to show cause as to why the Department of Law should not be authorized to institute proceedings in the Court of Chancery to hold the Town of Phillipsburg and officers guilty of contempt for the violation of the writ of injunction.

Officials of the Town of Phillipsburg, at a hearing before the Director of Health, on December 21, 1945 agreed that a consulting engineer would be engaged to make the necessary surveys and prepare plans for satisfactory sewage treatment facilities. The Department on January 24, 1946 was advised that a consulting engineer had been so engaged. Conferences between the consulting engineer and the departmental engineers have been held and the consultant has been submitting progress reports periodically.

The J. T. Baker Chemical Company, Phillipsburg, New Jersey, was found to be discharging untreated industrial wastes into the Delaware River above the point from which the City of Trenton obtains its water supply. A hearing was held in this matter on May 28, 1946, and as a result notices issued upon the J. T. Baker Chemical Company on June 11, 1946, in accordance with the provisions of Article 1, R. S. 58:10 and Chapter 146, P. L. 1939 (Cum. Supp. R. S. 32:20). On June 18, 1946 the Department was informed that the J. T. Baker Chemical Company had retained a firm of consulting engineers to make a survey and submit a proposal for the treatment of their wastes.

Riegel Paper Corporation maintains four paper mills discharging untreated industrial wastes into the waters of the Delaware River and its tributary, the Musconetcong River. These plants are located as follows: (1) Warren Glen Mill, Holland Township, located on the bank of the Musconetcong River; (2) Hughesville Mill, Holland Township, located on the bank of the Musconetcong River; (3) Riegelsville Mill, Pohatcong Township, located on the Delaware River at the confluence of the Musconetcong River; and, (4) Milford Mill, Milford Borough, located on the Delaware River. Notices issued under the provisions of Article 1, R. S. 58:10 and Chapter

146, P. L. 1939 (Cum. Supp. R. S. 32:20) on April 9, 1946. The notices under the latter act required that the discharge of the aforementioned industrial wastes be discontinued unless such wastes are subjected to a method of treatment that will result in the production of an effluent meeting the standards established by Chapter 146, P. L. 1939. The Department has been advised that the Riegel Paper Corporation has engaged a consultant to develop a satisfactory method of treatment for wastes emanating from the above mills. Progress reports have been submitted to the Department.

The Frenchtown Porcelain Company, Frenchtown, New Jersey, was found to be discharging untreated industrial wastes into the waters of the Delaware River. Notices issued under the provisions of Article I, R. S. 58:10 and Chapter 146, P. L. 1939 (Cum. Supp. R. S. 32:20) on May 14, 1946. The notices under the latter act require that the discharge of industrial wastes by the Frenchtown Porcelain Company be discontinued unless such wastes are treated so as to result in the discharge of an effluent into the Delaware River meeting the standards established by Chapter 146, P. L. 1939.

During the current fiscal year the Hercules Powder Company proposed the establishment of a factory in Burlington Township, above the point from which the City of Burlington obtains its source of potable water and pursuant to the provisions of R. S. 58:10-17 to 21, entitled "Factories Within Potable Watersheds," made application to the Department for permission to establish same. This is another new potential source of pollution of the Delaware River. A hearing was held in this matter before the Director of Health on March 15, 1946, at which representatives of the City of Burlington, the Township of Burlington, the Interstate Commission on the Delaware River Basin and the Hercules Powder Company were heard. There were no objections filed and, therefore a permit issued to the Hercules Powder Company on April 9, 1946, granting permission to locate a manufacturing plant in the Township of Burlington on the watershed of the Delaware River above the point from the City of Burlington obtains its public supply of potable water, subject to certain conditions, among which were:

"7. That no sewage, industrial wastes or other polluting matter shall be discharged from the premises of the plant to which this permit relates, into, or be permitted to flow or fall into, or be placed into the waters of the Delaware River or its tributaries, unless such sewage, industrial waste or other artificial polluting matter shall first have been so treated as to produce an effluent which will meet the following minimum requirements:

"(1) Such effluent shall be free of noticeable floating solids, color, oil or grease, and practically free of both suspended solids and sleet.

"(2) Such effluent shall be sufficiently free of turbidity that it will not cause noticeable turbidity in the water of the Delaware River.

"(3) Such effluent shall show a reduction of organic substance of at least eighty-five (85) per centum as measured by the bio-chemical oxygen demand, and further, such effluent in no case shall exceed a bio-chemical oxygen demand of one

hundred (100) parts per million, and furthermore, the discharge of such effluent, after dispersion in the water of the river, shall not cause a reduction of the dissolved oxygen content of such water of more than ten (10) per centum. The aforesaid reduction in dissolved oxygen content shall be determined by the average results obtained by dissolved oxygen tests made upon samples collected on not less than six (6) consecutive days from points in the river above and below the point or points of effluent discharge.

"(4) Such effluent shall be of such quality that the most probable number of organisms of the coli-aerogenes group shall not exceed one (1) per milliliter in more than twenty-five (25) per centum of the samples of sewage effluent tested by the confirmed test; and provided, further, that no single sample shall contain more than one hundred (100) organisms of the coli-aerogenes group in one (1) milliliter.

"(5) Such effluent shall be sufficiently free of acids, alkalis, and other toxic or deleterious substances, that it will not create a menace to the public health through the use of the water of the Delaware River for public water supplies, for recreation, industrial and other purposes; nor be inimical to fish, animal or aquatic life.

"(6) Such effluent shall be free of offensive odors and also be free of substances capable of producing offensive tastes or odors in public water supplies derived from the Delaware River at any place below the discharge of such effluent.

"8. The issuance of this permit shall not exempt the Hercules Powder Company from complying with the applicable provisions of R. S. 58: which include that before the building of any plant for the treatment of sewage or other polluting substances, plans therefor shall be submitted to and approved by the Department of Health of the State of New Jersey.

"9. This permit is issued on the premise that the waste treatment plant outfall line from the proposed treatment works, referred to in Conditions 7 and 8, is to be extended westerly across the Burlington Island so as to discharge into the main channel of the Delaware River."

FUNCTIONS AND DUTIES

In the early part of this report data were presented upon the number of water and sewerage projects examined and approved, inspections and other activities. Detailed information was presented upon a few of the Bureau's activities. There follows some information upon the functions and duties of the Bureau and the type of work entailed:

1. The Bureau, under the direction and supervision of the State Director of Health and/or the Members of the State Department of Health, enforces the provisions of the following public health laws:

a. An Act to secure the purity of the public water supplies in this State. (Chapter 41, P. L. 1899, as amended and supplemented—now R. S. 58:10-1 through 4);

b. (Chapter 253, P. L. 1909, as amended—now R. S. 58:11-1 through 6);

c. An Act prohibiting the discharge of sewage, excremental matter, domestic refuse and other polluting matter into fresh water. (Chapter 215, P. L. 1910—now R. S. 58:10-5 through 9);

d. An Act to regulate the discharge of effluents from sewerage systems into a potable water supply. (Chapter 46, P. L. 1921—now R. S. 58:10-10 through 12);

e. An Act providing that factories...for the manufacture of materials or goods, hereafter established within the watershed of streams above the point at which public supplies of potable water are taken, shall obtain from the Department of Health of the State of New Jersey, a permit to locate or establish such factories, workshops or places. (Chapter 280, P. L. 1920—now R. S. 58:10-17 through 21);

f. A Further Supplement to an Act entitled "An Act to secure the purity of the public supplies of the potable waters in this State," approved March seventeenth, eighteen hundred and ninety-nine. (Chapter 317, P. L. 1912—now R. S. 58:11-7 through 9);

g. An Act requiring the approval of plans and specifications by the Department of Health of the State of New Jersey for changes and improvements made at water purification plants, sewerage systems, and sewage treatment plants. (Chapter 87, P. L. 1921—now R. S. 58:11-10 and 11);

h. An Act requiring the furnishing of information relative to the construction and operation of water purification plants and distribution systems, and sewage treatment plants and sewerage systems to the Director of the Department of Health of the State of New Jersey (Chapter 47, P. L. 1921—now R. S. 58:11-12, and 13);

i. An Act to protect the purity of the public supplies of potable waters in this State. (Chapter 308, P. L. 1942—now R. S. Cum. Supp. 58:11-9.1 through 9.11);

j. An Act to provide for the examination and licensing of superintendents and operators and other persons in charge of water purification or treatment plants and sewage treatment plants under the direction of the Department of Health of the State of New Jersey. (Chapter 23, P. L. 1918—now R. S. 58:11-14 through 18), and, the supplement thereto (Chapter 206, P. L. 1938—now R. S. Cum. Supp. 58:11-18.1 through 18.6) which expanded the Department's jurisdiction to include the licensing of superintendents of water supply systems;

k. An Act to provide for the examination and licensing, under the direction of the Department of Health of the State of New Jersey, of superintendents or operators of public water treatment plants, public sewage treatment plants and public water supply systems. (Chapter 295, P. L. 1946—now R. S. Cum. Supp. 58:11-18.10 through 18.22);

l. An Act to prevent the pollution of the waters of this State by the establishment of a State sewerage commission. . . . (Chapter 210, P. L. 1899 as amended and supplemented);

m. An Act to require the provision of adequate trained personnel and proper appliances for life-saving and resuscitation at swimming pools or public swimming places operated directly or indirectly for profit and providing penalties for the violation thereof. (Chapter 172, P. L. 1946—now R. S. Cum. Supp. 26:4A-1 through 4A-3);

n. An Act to prescribe the conditions and restrictions under which public vaults, crypts or mausoleums for the interment of human bodies may be constructed, and fixing penalties for failure to comply therewith. (Chapter 233, P. L. 1916—now R. S. 26:6-42 through 49);

o. Section 40:1-16, Chapter 1, Title 40 of the Revised Statutes—Bonds and other obligations; and

under the same direction and supervision, alone or in conjunction with other Bureaus in the Department, particularly the Bureaus of Local Health Administration and Food and Drugs, enforces the provisions of:

2. a. An Act to secure the purity and wholesomeness of shellfish. (Chapter 24, P. L. 1912, as amended and supplemented—now R. S. 24:14-1 through 16);

b. A supplement to an Act to establish in this State boards of health. . . . (Chapter 330, P. L. 1894—now R. S. 26:2-43 through 48: "E. Abatement of Nuisances or Sources of Foulness");

c. An Act providing for the licensing and regulation and operation of slaughter-houses, abattoirs or places where animals are slaughtered for sale for human food... (Chapter 295, P. L. 1910—now R. S. 24:16-1 through 5); and

under the same direction and supervision:

3. a. In co-operation with the Interstate Commission on the Delaware River Basin, enforces the provisions of an Act to promote interstate co-operation for the conservation and protection of water resources in the Delaware River basin. (Chapter 146, P. L. 1939, now R. S. Cum. Supp. 32:20-1 through 10);

b. In co-operation with the Interstate Sanitation Commission enforces the provisions of R. S. 32:18-1 through 22 and 32:19-1 through 10; and:

4. a. As required by the United States Public Health Service, (1) inspects the watering points where water is derived for interstate carriers, and (2) certifies water for use on interstate carriers;

b. Does drafting work for other Bureaus in the Department;

c. Confers in the field and in the office with private citizens, public officials, consulting engineers and chemists, industrialists and associations in reference to stream pollution, bathing waters, and water and sewage treatment;

d. Supervises the purity of the water supplies at rural schools;

e. Examines weekly or monthly reports on the operation of water and sewage treatment plants.

Field investigations are required by:

1—a, b, c, d, e, f, g, h, i, j, k, l, m, n, o; 2—a, b, c; 3—a, b; 4—a, c, d, e.

Preparation of rules and regulations are required by:

1—a, b, d, e, f, g, h, i, j, k, l, m; 2—c.

Preparation of permits to construct and/or to operate are required by:

1—b, d, e, g, i, l, n; 2—c; 4—a, d.

Preparation of resolutions and notices are required by:

1—a, b, c, d, e, f, g, h, i, j, k, l, m, o; 2—a, b; 3—a, b; 4—a, d, e.

Preparation and scheduling of operating reports are required by:

1—b, i.

Preparation of exhibits and data and the presentation of testimony at Department hearings are required by:

1—a, b, c, d, e, f, g, h, i, j, k, l, n; 2—a, b; 4—d, e.

DEPARTMENT OF HEALTH

Preparation of court exhibits and the presentation of court testimony are required by:

1—a, b, c, d, e, f, g, h, i, j, k, l, m; 2—a, b; 3—a, b; 4—d.

The forwarding of water results with interpretations when necessary are required by:

1—b; 4—a, d.

The examinations of plans and specifications and reports thereon are required by:

1—b, d, e, f, g, i, l, n; 2—c; 4—c, d.

Preparation of permits to establish is required by:

1—e, i.

Preparation of permits to maintain is required by:

1—i.

The examination and licensing of operators of water supply systems and water and sewage treatment plants are required by:

1—j, k.

The renewal of annual licenses and/or permits is required by:

1—i, j, k.

The entrance into the court for a penalty and/or into the Court of Chancery for a writ of injunction to restrain is required by:

1—a, b, c, d, e, f, g, h, i, j, k, l, m, n, o; 2—a, b, c; 4—d.

Report of Bureau of Food and Drugs

For the Year Ending June 30, 1946.

By WALTER W. SCOFIELD, *Chief*

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

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

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

The agents of this Bureau have been most diligent in the inspection of these particular establishments and in the collection of samples of foods in order to provide grounds to take appropriate action promptly to correct these unsatisfactory practices and conditions.

BAKERY INVESTIGATIONS

The commercial baking of bread and pastries during this year has been carried on under most difficult conditions. Shortages of sugar, butter, shortening, milk powder and genuine flavorings made it impossible for the bakers to prepare foods which were as nutritious and appetizing as these foods were before the war. This Bureau could not increase the quantities of these ingredients but we did advise bakers to refrain from the use of substitutes which gave dissatisfaction to the consumers without increasing the food value

of the bakery products. The use of synthetic flavoring which would give bakery products a flavor slightly resembling the flavor of butter was discouraged on the ground that the use of such flavorings resulted in deception and dissatisfaction. The lower nutritional value of white bread due to the inability of the bakers to secure milk powder was balanced in part by the War Emergency Order which required that all white bread shall contain vitamins and minerals in quantities established by the Federal Food and Drug Administration for enriched white bread.

The State Board of Health held three hearings during the year on the desirability of securing state legislation which would make it mandatory to enrich all white flour and white bread offered for sale in New Jersey. This legislation was desired in order to prevent the sale of unenriched white flour and unenriched white bread when the War Emergency Order terminates six months after the end of the war. The uniform enrichment bill was approved by the State Board of Health and subsequently passed the Legislature. This law became effective on July 1, 1946.

SANITATION OF BAKERIES AND PUBLIC EATING ESTABLISHMENTS

The agents of the Bureau of Food and Drugs make sanitary inspections of all bakeries in the State and also of public eating places located in cities, boroughs and villages. During this year proprietors of these establishments experienced serious difficulty in securing labor to clean food handling establishments and the equipment used in the preparation and service of food.

During the year 1,727 inspections have been made of bakeries and 1,503 inspections have been made of public eating establishments. The Bureau has forwarded letters of advice and/or warnings in those cases in which violations of the laws were reported. Reinspections have been made where notices have been sent. In those cases in which little or no improvement was found upon reinspection, the proprietors have been given opportunities to come to hearings to show cause why legal action should not be taken against them for violations of the laws. It is concluded that the written letters of advice and warning and the hearings have stimulated the operators to greater efforts to prepare foods under sanitary conditions.

SLAUGHTERHOUSES

The shortage of meats available to the people of New Jersey continued during this year. This shortage from mid-western states resulted in an increased demand from the slaughterhouses of this State. Persons and firms operating slaughterhouses in New Jersey purchased animals in neighboring states for the purpose of causing these animals to be shipped into New Jersey and slaughtered here. Several applications were received during the

year for the construction of new slaughterhouses to take care of this increasing business.

The usual practice has been followed in regard to all new applications for licenses to operate slaughterhouses, that is, the applicant has been required to secure the approval of the site of the proposed slaughterhouse from the local board of health within whose jurisdiction the plant is to be located. It is also required that detailed plans and specifications covering the construction of the building be submitted to this office before building operations are started. An adequate water supply and satisfactory means of disposal of both liquid and solid wastes from the slaughterhouse are required.

During the year 720 inspections have been made of the 151 slaughterhouses in the various sections of the State. In certain instances these inspections proved that the slaughterhouses were being operated under insanitary conditions or were being operated in such a manner that meat of an unwholesome character was being distributed. Where evidence of this kind was obtained, hearings have been held and legal action has been instituted to collect the penalties provided in the laws of this State.

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

	MEAT INSPECTIONS			
	Passed for Food Carcasses	Pounds	Condemned Carcasses	Pounds
Beef	649	1,200	2	1,308
Horse	14	....	..	....
Lamb	5	....	1	....
Pork	359	....	..	20
Veal	266	....	5	....

MINERAL OIL IN FOOD

A shortage in the supplies of edible vegetable oils resulted in the substitution of mineral oil in such foods as mayonnaise dressing, salad dressing, and the sale of mineral oil in containers marked "Olive Oil," "Table Oil," etc. In certain instances these containers were lithographed cans which closely resembled cans used for the sale of established brands of olive oil. In certain instances the oil was colored to imitate the color of olive oil.

The substitution of mineral oil in place of edible oil constitutes adulteration under the laws of the State. Mineral oil is not digestible and has no value as a food. Recent investigations have established that the continued

use of mineral oil in the diet has a deleterious effect upon health because certain nutrients soluble in oils are removed from the body by the mineral oil.

Large stocks of mayonnaise dressing and adulterated oils were embargoed.

FOODS, DRUGS AND COSMETICS SALVAGED FROM FLOOD

The heavy rains during the week of July 22, 1945 caused several dams to break resulting in the overflow of the Passaic River and its tributaries, causing the greatest damage in foods, drugs and cosmetics in the history of New Jersey. Over 100 city blocks were affected by the flood waters in the towns along the Passaic River, and in a number of establishments the water rose to a height of four feet above the level of the first floor. Several sewers broke as a result of the water pressure, causing the water to be highly polluted, resulting in dangerous contamination to all foods, drugs and cosmetics coming in contact with this water.

It was learned upon investigation that 166 food, drug or cosmetic establishments were flooded, in which approximately one-half million containers of these products were found to have been contaminated by the water.

On July 25, 1945, representatives of the State Department of Health visited the Paterson Board of Health and, together with representatives of the local board of health and the Federal Food and Drug Administration, a survey was made of the areas in Paterson and the surrounding towns. The investigators immediately embargoed all foods, drugs and cosmetics which had evidence of coming in contact with the flood waters. At the time these embargoes were placed, all foods, drugs and cosmetics which could not be made safe for human use, such as sugar, fresh vegetables, etc., were destroyed under the supervision of the investigators. Embargoes were placed at 166 establishments throughout this area.

The next step was taking inventories at each of these 166 establishments to determine the quantity and kinds of foods, drugs and cosmetics which were being held under embargo. It was learned that a total of 468,867 units composed of glass jars, hermetically sealed tin cans, etc., were under embargo.

After the embargoes and inventories were made, it was found necessary to destroy all foods, drugs and cosmetics in containers which, in our opinion, were not water-tight or could not be cleaned thoroughly, and all containers of foods, drugs and cosmetics which had lost their identity. It was agreed by the persons in charge of this work that all containers of foods, drugs and cosmetics found to be hermetically sealed or water-tight should be reconditioned. It was necessary to cause all such containers to be washed in

clean water in order to remove the filth which adhered to the surfaces of the containers. Then the washed containers were submerged in two different solutions containing not less than 400 parts per million of available chlorine. The cleansing of the containers was carried out under the supervision of representatives of the co-operating health agencies. The local board of health of Paterson furnished the substance used in making the chlorine solutions and the solutions were made and changed under the supervision of official agents. All washed containers were required to be held for a period of not less than 30 days. After the expiration of the 30 days, these containers were inspected by the health representatives for any evidence of any change or abnormality in the products or the containers. The number of containers that developed abnormality after the holding period of 30 days was extremely small. It was gratifying to note the splendid co-operation of the affected merchants and it was only necessary in two cases to close the stores where it was found that our embargoes were being violated.

At the completion of this work, it was learned that 168,114 units had been condemned and destroyed and that 302,753 units had been reconditioned under official supervision. Among the condemnations there were 22,367 pounds of cheese, 5,653 pounds of butter, 53,424 bottles of beer and other beverages, 13,301 containers of drugs and 8,800 containers of cosmetics.

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 for assuring the fitness of these articles of food.

The same law places upon local boards of health of the various municipalities the responsibility for enforcing these provisions within their respective jurisdictions. In the enforcement of these provisions, it has been found that but few of the local boards are adequately equipped with funds or the trained personnel necessary to meet the demands of the law.

Local boards of health are encouraged to co-operate with each other and to enforce the law in so far as they are able to do so, and to advise this Department in a manner that will avoid unnecessary duplication of effort.

This Department being without the necessary funds and personnel to properly enforce these laws, because of the wide field from which milk and milk products are obtained, and the tremendous number of milk plants and dairies to be inspected, has found it necessary to place much of the responsibility for inspection upon the dealers in the industry, who are expected to know that the articles which they offer for sale to the public are satisfactory for food.

Our inspectors act in the manner of supervisors, giving direction to the efforts of inspectors of local boards of health, as well as inspectors employed by milk companies, in the inspection of dairies and milk plants, selecting for special attention those sources of milk and milk products which are of questionable repute.

This Department looks upon the errors of dairymen and milk dealers in a spirit of tolerance, particularly necessary at this time because of shortage of man-power and materials in industry. It offers friendly criticisms until chastisement becomes necessary, and finally resorts to prosecution only when such action seems necessary to secure substantial compliance with the law and protection of the public health.

The national defense program has resulted in extensive changes in the order of business in many milk plants, necessitating additional supplies of milk. During this emergency period, it has been necessary to issue some temporary emergency permits for the distribution of milk and milk products. In this connection it seems only fitting to express our appreciation for the excellent co-operation received from the men engaged in the milk industry, as it concerns this State.

During the past fiscal year, numerous special investigations were made at milk pasteurizing plants, following the receipt of laboratory reports indicating there was some question as to whether or not milk was being adequately pasteurized. In some instances the records, equipment and methods at the plants appeared entirely satisfactory. In a number of cases it was found that the pasteurizing temperature was slightly below 142° Fahrenheit as shown by a test of the thermometer; in other cases it was found that the milk was not held for the full 30 minutes required by law. Milk pipe line pockets appeared as potential sources of raw milk contamination of so-called pasteurized milk. The results of these investigations indicate clearly the need for exacting greater care in the supervision and operation of milk pasteurizing plants to secure the safety of milk and milk products for food.

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	2	41
Minnesota	2 .....	.. ..
New Jersey	1,973	3,479
New York	19	118
Pennsylvania	30	180
Wisconsin	17	324
	<hr/> 2,043	<hr/> 4,142

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

<i>State</i>	<i>Number of Inspections of Milk Plants</i>	<i>Number of Inspections of Dairies</i>
Indiana	3	6
Maryland	1	59
Michigan	2 .....	.. ..
New Jersey	17	667
New York	70	3,834
Pennsylvania	50	2,615
Wisconsin	7 .....	.. ..
	<hr/> 150	<hr/> 7,181

SANITARY SHELLFISH CONTROL

The importance of shellfish as food was emphasized during the war years, and continued during the shortage of meat products. The dietary value of shellfish has been well recognized by the consumers, and large quantities of clams and oysters moved to the markets. The return of men from service to their homes in maritime counties found many of them re-engaging in the catching of shellfish in the approved waters of bays and channels, where unusually high prices produced a rich reward.

Three field shellfish laboratories and the mobile laboratory boat "Inspector" provided facilities for the examination of samples of shellfish and growing waters. In addition, there were provided three power boats for use by the three bacteriologists in charge of the laboratories located in the Raritan Bay, Coastal and Delaware Bay areas. Inspections and sampling of waters and shellfish were made in all shellfish producing areas of the State.

Condemned shellfish areas were patrolled at frequent intervals, and good compliance with the laws observed. Dealers in shellfish, and oyster and clam shucking houses were inspected at regular intervals, and the products frequently sampled. Joint inspections were made with representatives of the United States Public Health Service to observe compliance with the Shellfish Manual of the Service. All interstate shipments of shellfish must be made under the approval of the Service, through the issuance by the Department and approval by the Service, of serially numbered shellfish shipping certificates. Frequent inspections by the bacteriologists assure the efficiency of this system of sanitary control, and the purity and safety of the product.

During the fiscal year there were examined in the laboratory of the boat "Inspector" 1,205 water samples; during the six months of operation

during the warm seasons the boat logged 893 miles. There were also examined in the three field laboratories 214 samples of shell oysters, 279 samples of shucked oysters, eight samples of frozen oysters and clams, 276 samples of hard clams, 14 samples of soft clams, 14 samples of mussels, 11 miscellaneous samples and 502 samples of water.

The total number of samples examined was 1,707 water samples and 816 shellfish samples, making a grand total of 2,523 samples.

Inspections were completed as follows: shellfish shipping establishments 1,393; shellfish shucking establishments 144; miscellaneous shellfish establishments 18. The grand total of inspections is 1,555.

Four hundred twenty-one establishments were granted shellfish certificates by the Department.

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

Article	Amount
Canned or bottled foods	426 cans—3 bottles
Cereals	6,732 pounds
Meats	90 pounds
Non-alcoholic beverages	64,758 bottles
Nuts	793 pounds
Raisins	724 pounds
Sugars	415 pounds
Miscellaneous	4,014 pounds

SUMMARY OF EXAMINATIONS OF SAMPLES OF DRUGS

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

Inspectors of the Bureau visited many pharmacies throughout the State and requested dangerous drugs, which are prohibited from sale except upon prescriptions, without presenting prescriptions. Only 15 violations were reported during the entire year.

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

PENALTIES

During the year, \$4,454.56 was collected in penalties and costs for violation of the Food and Drug Laws.

FEES

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

680 Milk Permits	@ \$25.00	\$17,000.00
15 Goat Milk Permits	@ 10.00	150.00
1 Goat Milk Permit	@ 9.17	9.17
1 Goat Milk Permit	@ 3.36	3.36
1 Goat Milk Permit	@ .85 .....	.85
22 Ice Cream Plant Licenses	@ 100.00	2,200.00
9 Ice Cream Plant Licenses	@ 50.00	450.00
13 Ice Cream Plant Licenses	@ 25.00	325.00
35 Ice Cream Plant Licenses	@ 10.00	350.00
479 Ice Cream Plant Licenses	@ 5.00	2,395.00
60 Cold Storage Licenses	@ 10.00	600.00
3 Narcotic Drug Licenses	@ 50.00	150.00
40 Narcotic Drug Licenses	@ 5.00	200.00
1,359		\$23,833.38

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

	Above Standard	Below Standard	Misbranded	Total
Milk and Cream	3,539	194	68	3,801
Foods	1,730	251	6	1,987
Drugs	112	26	51	189
	5,381	471	125	5,977

SANITARY INSPECTIONS MADE OF ESTABLISHMENTS WHERE FOODSTUFFS ARE PRODUCED,
PREPARED, PACKED, STORED OR OTHERWISE HANDLED

	Inspections
Bakeries	1,727
Candy factories	52
Canning factories	36
Cider presses	1
Cold storage warehouses	374
Dairies	3,479
Drug stores	4
Egg-breaking establishments	66
Goat dairies	18
Ice cream manufacturing plants	484
Meat markets	25
Meat processing plants	37
Milk plants	1,973
Non-alcoholic beverage establishments	334
Pickling plants	21
Poultry slaughterhouses	3
Restaurants and hotel kitchens	1,503
Shellfish shipping establishments	1,393
Shellfish shucking establishments	144
Shellfish inspections (miscellaneous)	18
Slaughterhouses	720

12,412

COLD STORAGE

During the last fiscal year from July 1, 1945 to June 30, 1946, extensions of time were granted for the storage of food in cold storage, as follows:

Quantity	Article	Extension Granted
17 boxes	poultry	4 months
30 barrels	poultry	3 months
14 barrels	meat	3 months
1,538—30-lb. cans	whole egg yolks	3 months

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

ANNUAL COLD STORAGE REPORT

	July 1945	August 1945	September 1945	October 1945	November 1945	December 1945	January 1946	February 1946	March 1946	April 1946	May 1946	June 1946
Eggs, cases	473,135	412,724	298,941	97,720	18,748	19,454	98,585	201,626	480,616	680,869	902,811	871,802
Eggs, broken, lbs.	6,670,866	6,633,471	6,266,152	6,205,686	2,284,118	2,502,889	1,647,595	2,008,188	3,111,866	5,906,818	7,274,604	6,928,814
Cheese, lbs.	5,827,069	5,178,767	5,860,048	7,038,063	3,207,081	2,769,118	2,068,889	2,198,228	1,441,968	1,468,041	1,898,708	2,064,928
Butter, lbs.	15,025,101	16,618,806	15,000,119	9,602,068	7,895,489	4,827,282	5,116,887	2,263,691	1,817,982	1,018,281	1,968,881	8,127,088
Poultry, lbs.	8,081,719	8,309,429	6,481,460	11,489,847	17,860,645	28,608,914	27,281,758	27,988,448	27,046,514	20,185,489	12,088,966	10,162,000
Fresh meats, lbs.	80,776,424	26,284,698	20,288,070	17,772,668	17,064,047	16,428,769	18,991,265	18,127,498	20,860,801	20,883,009	17,898,378	18,881,669
Fresh fish, lbs.	2,103,866	3,483,188	4,768,010	4,180,878	6,688,041	6,518,027	4,963,018	5,090,287	4,101,789	4,627,769	5,862,822	6,827,821
Milk and milk products, lbs.	2,672,086	2,096,808	1,797,779	1,240,668	886,588	689,807	208,082	861,770	877,288	1,076,087	3,876,874	6,976,006
Edible fats and oils, lbs.	5,006,979	6,848,058	5,097,283	3,328,288	2,844,898	4,272,767	1,720,868	5,131,108	5,995,085	4,649,914	2,882,815	2,488,181
Game, lbs.	80	841	80	1,068	6,962	1,860	1,975	14,018	8,876	8,769	2,104	2,408
Miscellaneous articles, lbs.	580,891	700,260	970,882	1,684,700	1,187,084	1,015,817	1,114,822	1,040,812	976,106	996,896	886,229	978,488

Report of the Bureau of Bacteriology

For the Year Ending June 30, 1946

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

The end of the fiscal year found the Bureau of Bacteriology adjusting itself to the post-war renewal of increased demands for services from physicians returned from the armed services. The excellent laboratory facilities offered to physicians while in service had acquainted them anew with the diagnostic aid which may be obtained by submitting laboratory specimens. A greater volume of work is also reflected by the post-war return of local and county health officials, resulting in a reactivating of their programs. Fortunately, the Bureau of Bacteriology had all its personnel, who had served in the Army and Navy, returned to the Bureau. With one or two exceptions, all were back by the first of the calendar year. I say fortunately, for two reasons. First, because the personnel returned with new experiences and techniques obtained in their respective theatres and secondly, because of the large increase of work which started about the first of December 1945. There were 45,000 additional requests for serologic tests for syphilis alone between January and June 1946, as compared with the previous six months.

Besides the increase in volume of work, the Bureau of Bacteriology has initiated a number of improved techniques and procedures in order to give the physicians submitting specimens better information on the test. This was impossible to do during the war years because of lack of personnel. Briefly, these additional services consisted of routine virulence tests and sugar reactions on all throat specimens where organisms resembling *C. diphtheriae* were present. The culture is not reported as positive for *C. diphtheriae* until checked biochemically and proven by positive virulence test. Blood agglutination tests for enteric diseases are now reported for O and H antigens and a routine check for undulant fever performed.

Feces and urine specimens are routinely checked for organisms of the *Eberthella*, *Salmonella* and *Shigella* groups. Where an organism is identified as a *Salmonella*, the Bureau of Bacteriology classifies it into its group as A, B, C, D or E. The Bureau now has an agreement for identification as to specific species with the *Salmonella* Typing Center. The Bureau of Bacteri-

ology can, therefore, offer local and hospital laboratories better aid in the identification of cultures isolated in their laboratories.

The technique and supervision of the large number (275,500) of serologic specimens for syphilis has also been improved. This improvement is reflected by the rating obtained by the Bureau of Bacteriology in the annual evaluation study conducted by the United States Public Health Service, which is reported later.

During the year, the Bureau was able to conduct a survey of local, private and hospital laboratories approved by the Department of Health to perform premarital and prenatal blood tests and other examinations for which they had been approved. Ninety-one laboratories in twelve of the counties were visited and 830 check specimens submitted. Only laboratories approved for premarital and prenatal blood tests were checked with sera.

Because there are no definite minimum requirements established for laboratory approval by the New Jersey State Department of Health, the Bureau of Bacteriology requested a moratorium of one year while such new requirements may be studied and adopted. A committee of the State Board of Health, with Dr. Fischelis as chairman and Mr. Frank J. Osborne and Mr. L. VanD. Chandler as members, will have the new standards ready to submit for adoption in the near future.

The lack of adequate quarters is a constant handicap to the expanding needs of the Bureau. We all know this statement is not an original one, and dates back in our annual reports for the past 20 years. Housed on the fourth floor of the old State House building, we have long since outgrown our floor space. Space is needed for new laboratory equipment in order to expand services which other state department of health laboratories are now offering in their states.

During the past year, we have been constantly delayed in our work by the lack of water pressure, to the extent that we do not have sufficient water for our daily needs. Drinking water, also, has long been at a premium. It is hoped that the near future may find the entire Department of Health, with the laboratories, housed in an adequate building of their own.

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

cines and media and inspects laboratories desiring approval to perform premarital and prenatal blood tests.

TABLE I

NUMBER OF SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1946

Diphtheria	5,297
Tuberculosis	10,020
Blood agglutinations	6,337
Enteric diseases (feces and urine)	8,163
Gonorrhoea	12,108
Syphilis	275,500
Miscellaneous specimens	4,185
Total	321,610

This table shows an increase in volume of work in all categories over that of the previous year. Last year the total number of specimens examined was 276,610.

The number of diagnostic tests for syphilis conducted by the Bureau this year totaled 275,500 blood specimens and spinal fluids, which shows this type of test constituting 85.7% of the total number of specimens examined.

TABLE II

SPECIMENS OF BLOOD AND SPINAL FLUID EXAMINED FOR SYPHILIS DURING YEAR ENDING JUNE 30, 1946, BY MONTHS

Month	Positive	Doubtful	Negative	Unsatisfactory	Total
July	1,432	600	17,526	800	20,358
August	1,335	667	16,112	558	18,672
September	1,105	463	15,317	469	17,354
October	1,570	614	20,181	466	22,831
November	1,244	603	19,183	487	21,517
December	978	489	13,817	502	15,786
January	1,672	708	22,328	928	25,636
February	1,386	544	19,305	691	21,926
March	1,780	752	20,975	486	23,993
April	1,809	779	24,973	672	28,233
May	1,760	772	25,669	805	29,006
June	1,908	914	26,375	991	30,188
Total	17,979	7,905	241,761	7,855	275,500

This table shows 6.6% positive; 2.9% doubtful; 2.8% unsatisfactory and 87.7% negative. Of the total number of specimens examined for syphilis, 1,608 were spinal fluids.

During part of the fiscal year, the Kline diagnostic test was used as a screen test, but the Bureau of Bacteriology has now adopted the Mazzini test as a screen. The Kolmer complement fixation test and the Kahn precipitation test are performed on all specimens showing a positive, doubtful or unsatisfactory result on the screen test. The Kolmer quantitative test is made on all spinal fluids, on all blood specimens where there is a history of penicillin treatment and on all requests for such tests. The Kahn quantitative test is also made upon request.

From the above it can be seen that these numbers refer to blood specimens examined and not to total serologic tests made. A better picture of tests made may be obtained from Table III which also shows the number of blood specimens examined for applicants for marriage, required by the New Jersey premarital law, and on expectant mothers required by the prenatal law.

TABLE III

Number of premarital specimens	48,539
Number of positive premarital specimens	813
Number of prenatal specimens	41,593
Number of positive prenatal specimens	443
Number of spinal fluid specimens	1,608
Number of Mazzini Tests	84,232
Number of Kline tests	191,676
Number of Kahn tests	5,780
Number of Kolmer tests	32,128
Number of quantitative Kolmer tests	1,728

While the number of premarital specimens examined nearly doubled during this fiscal year, the number of positives in this category dropped 2% to a little less than 1.7%. Of the 41,593 prenatal specimens, an increase of 9,000 over last year, 443 or slightly more than 1% were positive. Many premarital certificates were 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, 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

The Bureau of Bacteriology again participated, in 1946, in the evaluation study conducted by the United States Public Health Service for State department of health laboratories. The control on the evaluation was performed by the author of the various standard tests.

Results are considered satisfactory by the United States Public Health Service rating when the specificity tests are 99% and the sensitivity tests within 10% of the author's standard. The Bureau of Bacteriology obtained the best rating it has ever made in the Mazzini, Kahn and Kolmer, which are the tests now used routinely in the Bureau.

Following are the results obtained in the Bureau of Bacteriology on 231 sera tested in the syphilitic group and 134 in the non-syphilitic group.

	Sensitivity	Specificity
Mazzini (flocculation)		
Author control	84.0	100.0
Bureau of Bacteriology	88.1	99.6
Kolmer (complement fixation)		
Author control	88.4	100.0
Bureau of Bacteriology	85.9	99.3
Kahn Precipitation		
Author control	83.1	100.0
Bureau of Bacteriology	85.7	100.0

There was an increase of nearly 2,000 pus smears for *N. gonorrhoeae* over those examined last year.

TABLE IV

SPECIMENS EXAMINED FOR NEISSERIA GONORRHOEAE (PUS SMEARS) DURING YEAR
ENDING JUNE 30, 1946, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	94	797	24	915
August	124	707	29	860
September	115	785	23	923
October	133	919	39	1,091
November	110	820	20	950
December	90	668	25	783
January	143	950	35	1,128
February	102	812	33	947
March	99	924	34	1,057
April	122	964	45	1,131
May	137	982	32	1,151
June	174	950	48	1,172
Total	1,443	10,278	387	12,108

Throat culture specimens for *C. diphtheriae* increased over last year, last year's figures being 5,606.

TABLE V

SPECIMENS EXAMINED FOR *CORYNEBACTERIUM DIPHTHERIAE* DURING YEAR ENDING JUNE 30, 1946, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	6	285	4	295
August	6	230	12	248
September	6	323	23	352
October	6	584	26	616
November	13	605	26	644
December	23	311	13	347
January	31	577	31	639
February	55	381	13	449
March	23	343	8	374
April	20	288	12	320
May	35	385	9	429
June	45	517	22	584
Total	269	4,829	199	5,297

Routine virulence tests are performed on all specimens showing organisms morphologically identical to *C. diphtheriae*. The pure cultures isolated are checked for biochemical reactions also. There were 11 positive virulence results and 116 negative findings.

Specimens of sputa and exudates for *M. tuberculosis* increased over those performed last year by 1,000 specimens.

TABLE VI

SPECIMENS EXAMINED FOR *MYCOBACTERIUM TUBERCULOSIS* DURING YEAR ENDING JUNE 30, 1946, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	96	633	5	734
August	127	557	4	688
September	83	548	2	633
October	102	652	9	763
November	134	621	10	765
December	94	539	8	641
January	228	654	20	902
February	117	763	19	899
March	138	872	27	1,037
April	105	818	31	954
May	124	954	89	1,167
June	112	654	71	837
Total	1,460	8,265	295	10,020

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

TABLE VII

GUINEA PIG INOCULATIONS FOR *M. TUBERCULOSIS*

Material	Positive	Unsatisfactory	Negative
Gastric juice	7	11	125
Pleural fluid	6	5	39
Sputum	6	6	47
Urine	2	2	55
Abscess	4	1	8
Spinal fluid	1	..	9
Hydrocele fluid	..	..	4
Total	26	25	287

Total animal inoculations, 338

Blood agglutination tests were performed for typhoid O and H antigens, para-typhoid A and B, undulant fever, tularemia and the Weil-Felix reaction for typhus and Rocky Mountain spotted fever. The laboratory 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 agglutinations increased by more than 1,000 over those of last year. Reactions were as follows:

TABLE VIII

	Positive	Negative	Unsatisfactory	Total
Typhoid fever	23	2,695	33	2,751
Para-typhoid fever	7	1,655	21	1,683
Undulant fever	95	1,644	9	1,748
Rocky Mountain spotted and typhus fevers	11	92	..	103
Tularemia	..	52	..	52
Total	136	6,138	63	6,337

The number of cultural examinations (feces and urine) for enteric pathogens nearly doubled those made during the last fiscal year. This work also included the more complete identification of the *Salmonellas* into their groups, as previously stated.

TABLE IX

FECES AND URINE SPECIMENS EXAMINED FOR ENTERIC PATHOGENS DURING YEAR
ENDING JUNE 30, 1946

	Positive	Negative	Unsatisfactory	Total
Eberthella typhosa	71	3,332	93	3,496
Salmonellas	6	2,474	31	2,511
Shigellas	2	2,029	31	2,062
No examination .....	..	..	94	94
Total	79	7,835	249	8,163

In the specimens classified as "Miscellaneous," the increase in animal head examinations for rabies and the high percentage of positives were outstanding. This also is true of the picture in malaria. Last year there were three positive cases and this year 61. In almost all positives, the laboratory was able to classify the species of plasmodia present.

TABLE X

MISCELLANEOUS SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1946

Specimen for:	Positive	Negative	Unsatisfactory
Rabies	60	94	8
Amoeba .....	..	2	2
Anthrax .....	..	10	..
B. abortus (blood) .....	..	1	..
Bacterial infection (blood, body fluids, pus, feces, sputum, urine, etc.)	438	51	10
Dysentery (blood reaction for) .....	..	1	..
Filariasis .....	..	2	..
Globulin	4	81	2
Gonococcus infection (eye smears)	2	58	1
Hemolytic Streptococci	133	990	1
Infectious mononucleosis	28	117	2
Malaria	61	180	10
Meningococci	1	8	..
Occult blood .....	..	5	..
Ophthalmia neonatorum	17	1	..
Ova and parasites	5	306	6
Pneumonia	3	12	2
Trichinosis .....	..	5	..
B. tuberculosis (body fluids, feces, pus and urine)	39	412	5
Vincent's angina	100	380	1
Special examination of eating utensils	111	199	..
Other unusual examinations	91	126	1
Total	1,093	3,041	51
Grand total	4,185		

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

TABLE XI

RABIES SPECIMENS (SPECIES OF ANIMALS) EXAMINED DURING YEAR ENDING
JUNE 30, 1946

Dogs—Positive, 60; negative, 72; unsatisfactory, 8.
Cats—Negative, 14.
Foxes—Negative, 2.
Cows—Negative, 4.
Squirrels—Negative, 2.

YEARLY TOTALS OF ANIMALS, EXAMINED FOR RABIES FROM 1940 TO 1946, INCLUSIVE

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

MUNICIPALITIES, ARRANGED BY COUNTIES, FROM WHICH RABID ANIMALS WERE RECEIVED
DURING YEAR ENDING JUNE 30, 1946

Cumberland County—Millville, 1.
Essex County—Bloomfield, 3; Maplewood, 1; Orange, 1; Verona, 1; West Orange, 1.
Hunterdon County—Lambertville, 1; Little York, 1.
Mercer County—Hopewell, 1.
Morris County—Chester, 1; Dover, 1; Hanover, 1; Morristown, 2; Netcong, 1.
Ocean County—Toms River, 1.
Passaic County—Little Falls, 1; Paterson, 1; West Paterson, 4.
Somerset County—Bernardsville, 2; Somerville, 7; Watchung, 1.
Union County—Cranford, 2; Linden, 2; Mountainside, 1; Plainfield, 1; Scotch Plains, 1; Summit, 6; Union, 2.
Warren County—Blairstown, 1; Hackettstown, 4; New Village, 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 weeks. The following table shows the source of material inoculated into Swiss mice.

TABLE XII

MICE INOCULATIONS FOR RABIES

Material	Positive	Negative
Dog brain	1	61
Cat brain	0	10
Cow brain	0	3
Squirrel brain	0	2
Rabbit brain	0	1
Fox brain	0	1
Total	1	78

The Bureau, this year, offered a better container for submitting spinal fluids to the laboratory. The tubes are prepared with 1-10,000 sol. of "Merthiolate" to act as a preservative during transit by mail. The malaria, syphilis and tuberculosis information sheets were also improved.

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, 1946

Diphtheria (regular mailing cases)	8,152	
Extra swabs	600	
		8,752
Tuberculosis mailing cases		14,400
Typhoid fever mailing cases		1,756
Malaria mailing cases		445
Gonorrhoea mailing cases		15,809
Feces and urine mailing cases		6,928
Syphilis mailing cases	302,175	
Treponema pallida mailing cases		30
Ophthalmia neonatorum mailing cases		9
Total		350,304

The Bureau of Bacteriology supplies media to other bureaus in the State service, and small local and private laboratories throughout the State. The Bureau prepared and supplied 1,981,300 cc. of various kinds of media during the fiscal year.

Report of Bureau of Chemistry

For the Fiscal Year of July 1, 1945 to June 30, 1946

By JOHN E. BACON, Chief

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

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

Two chemists and one associate chemist, all veterans, were given temporary appointments in the Bureau of Chemistry as of February 1, 1946, being replacements caused by death, resignation and retirement.

Since the majority of the personnel that were in the armed services have now returned to this Department or been replaced, it is anticipated the work of this Bureau will materially increase as certain phases of public health, curtailed during the war for lack of personnel, are resumed.

The passage of Chapter 86, P. L. 1946, "The Bread Enrichment Act," places the enforcement of same under the New Jersey State Department of Health. No monies have been appropriated for the technical help and special apparatus and equipment necessary to set up and maintain a vitamin laboratory. An attempt is being made to have funds made available through the Commissioner of Finance, and when obtained the vitamin assay work will be undertaken promptly upon acquiring the necessary personnel and

equipment. However, the laboratories are now very much overcrowded and to do this work satisfactorily additional adjacent floor space of not less than 700-800 square feet should be provided.

There has been an appreciable increase in the number of milk samples during the past year found to contain added water, and this fraud on the public may be expected to continue as long as there is a scarcity of milk. The U. S. Department of Agriculture formerly paid a subsidy to milk producers of about one cent a quart for all milk produced, but were not desirous of paying same for water. Their investigators surveyed the producers of several dairies found guilty of selling milk containing added water, and our laboratories have co-operated with this government agency in making chemical analyses and freezing point determinations on these investigational samples.

During the war some chemical plants in South Jersey and nearby areas in Pennsylvania manufactured fluorine, which was used in connection with the making of atomic bombs. Due to the scarcity of stainless steel apparatus for condensers and many other reasons, large quantities of this noxious gas were emitted into the atmosphere and carried over contiguous areas by winds, causing damage to vegetation and crops. The farmers, particularly in Gloucester County, were much concerned and contended they had suffered severe losses, particularly to the peach crop the previous year. All phases of the problem were discussed at a well-attended meeting held at Woodbury, N. J., in February, 1946, and industry stated that it had already made changes in manufacturing so that appreciable quantities would no longer escape to the atmosphere. This, and the marked decrease in the manufacturing of fluorine, abated the nuisance.

The New Jersey State Department of Health entered the picture because fluorine is a toxic gas, and if present on fruits and vegetables in excess of 7.0 p.p.m. is considered dangerous to the public health. Furthermore, if the water supplies of South Jersey were contaminated, mottling of the enamel of the teeth of the consumers might result. Numbers of samples of water from streams and public water supplies were collected by our engineering personnel. Food and drugs inspectors obtained samples of tomato products and frozen foods harvested during the 1945 season. These were examined for fluorine content. The results of these analyses indicated there was no menace to public health due to fluorine contamination of water supplies of South Jersey or from foods processed during the summer of 1945.

Due to the scarcity and expensiveness of edible oils, an economic cheat of some magnitude has been perpetrated by many unscrupulous manufacturers of mayonnaise and salad dressings. Mineral oil has been substituted in these products for olive, cotton seed, corn and other edible oils. It has

no food value, absorbs vitamin A from the intestines, and interferes with natural elimination. All brands on the market in New Jersey have been examined, and many violators apprehended and punished. This is one type of economic fraud which has been quickly suppressed.

While the Department makes no attempt to compete with commercial laboratories, some corporations insist that their private water supplies be examined in our laboratories, and are willing to pay the fee charged for this work so as to frequently check the safety of their drinking waters. During the past fiscal year \$3,573 revenue was paid for such services, which more than covered the appropriation of \$3,390 granted for laboratory supplies for the entire year. These moneys are paid into the State Treasury.

There were 17,819 samples of food, drugs, water, sewage and miscellaneous preparations examined during the past year, an increase of 3.4% over the number examined last year.

SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY—JULY 1, 1945-JUNE 30, 1946

Months	Total													
	Public Water Supplies	Pay Samples	Camp Samples	Miscellaneous Samples	State and County Institution Samples	Dairy Samples	Bottled Water Samples	School Supplies	Bathing Waters and Swimming Pools	Stream Samples	Sewage Samples	Trade Waste	Sand Samples	Experimental Samples
1945														
July	891	9	78	119	18	5	8	1	18	20	31	6	1	15
August	362	7	25	123	8	2	13	3	5	93	163	6	21	15
September	549	63	1	87	8	5	13	83	2	53	45	4	3	11
October	571	69	1	74	20	1	13	123	1	7	109	13	8	11
November	371	84	1	32	7	1	9	54	2	2	36	1	8	8
December	210	76	..	48	9	2	..	32	..	..	10	5	..	..
1946														
January	335	93	..	68	21	..	..	78	1	25	185	6	..	10
February	575	74	..	63	8	..	..	54	..	14	10	10	..	5
March	575	91	2	47	15	12	6	43	..	49	59	30	..	512
April	507	94	2	85	21	7	13	19	2	71	208	34	1	96
May	986	103	1	68	76	1	38	42	15	71	28	14	1	19
June	460	115	25	89	12	13	15	22	15	63	280	33	..	..
Totals	6,179	908	136	923	155	38	115	554	45	408	1,254	162	26	713
														11,616

BUREAU OF CHEMISTRY

TABLES SHOWING NUMBER AND CHARACTER OF SAMPLES EXAMINED IN FOOD AND DRUG LABORATORY FROM JULY 1, 1945 TO JUNE 30, 1946

Foods	Above	Below	Total
	Standard	Standard	
Milk—chemical	2,840	131	2,971
Milk—bacteriological	48	..	48
Milk—phosphate	314	71	385
Chocolate milk	37	5	42
Butter	3	..	3
Cream—sweet	402	20	422
Cream—sour	23	1	24
Ice cream	277	14	291
Soft drinks	942	79	1,021
Syrups	7	7	14
Hamburg	77	17	94
Sausage	59	13	72
Meat products	4	..	4
Olive oil	34	9	43
Salad oil	1	2	3
Salad dressing and mayonnaise	75	5	80
Tomato products	17	15	32
Asparagus soup	2	..	2
Canned asparagus	5	..	5
Frozen asparagus	2	..	2
Frozen beans	4	..	4
Frozen spinach	10	..	10
Candies	133	36	169
Raisins .....	..	3	3
Peanuts .....	..	3	3
Miscellaneous samples	6	2	8
Total food samples	5,322	433	5,755
<i>Drugs</i>			
Paregoric	7	..	7
Aromatic spirits of ammonia	1	1	2
Sulpha nose drops	12	..	12
Tincture of iron	20	1	21
Headache tablets	42	..	42
Citrate of magnesia	40	1	41
Witch hazel	44	6	50
Tablets	1	..	1
Sulfathiazole gum	10	..	10
Epsom-Pine	1	..	1
Thyroid tablets	3	..	3
Total drug samples	181	9	190
Urinalysis	63	..	63
Blood counts	195	..	195
Total	5,761	442	6,203

Report of the Bureau of Preventable Diseases

For the Year Ending June 30, 1946

On February 8, 1944, the New Jersey State Board of Health at its regular meeting authorized the creation of a Bureau of Preventable Diseases as part of the reorganization plan of the State Department of Health. An Advisory Committee of Members of the State Board of Health was appointed, but the plan was not activated because of wartime personnel shortages. At its regular meeting in October, 1945, the Board approved the appointment of Leonid S. Snegireff, M.D., Dr.P.H., as Director of the Bureau of Preventable Diseases. Dr. Snegireff had served as Medical Assistant with the State Department of Health starting in 1936. He subsequently served the Department as Medical Supervisor, Preventable Disease Control, Epidemiologist, and Medical Liaison Officer to the State Office of Civilian Defense prior to his entry into the Army of the United States in August, 1942.

Dr. Snegireff did considerable organization and staff work with the chiefs of the bureaus that were being consolidated into the Bureau of Preventable Diseases. At its regular meeting on December 11, 1945, the State Board of Health made the following bureaus part of the Bureau of Preventable Diseases, and their designation was changed to that of divisions: Venereal Disease Control, Tuberculosis Control, Maternal and Child Health, Industrial Health, Dental Health and Health Education. The Advisory Public Health Nurse, Negro Health Program and Rabies Control Program were also made part of the Bureau of Preventable Diseases.

Activities during the remainder of the fiscal year were aimed at implementing this reorganization plan and establishing a working program for the Bureau. Activities anticipating the formation of a Division of Cancer Control were conducted. The Bureau of Preventable Diseases developed close liaison with the State Department of Institutions and Agencies and the State Department of Labor on problems of mental hygiene, tuberculosis and the care of migrant workers. This was accomplished through the medium of inter-departmental conferences, at which the Director of the Bureau of Preventable Diseases, Division Chiefs concerned, and representatives of the State Board of Health were present. Similar liaison was developed with the New Jersey Division, American Cancer Society and the Medical Society of New Jersey, and a joint study of cancer diagnostic and treatment facilities was undertaken. Joint exhibits on cancer were sponsored by the Bureau, the Medical Society, American Cancer Society and the State Department of Institutions and Agencies.

While Dr. Snegireff was Director of the Bureau at the close of the fiscal year, he resigned July 16, 1946. This report was prepared after his resignation.

Report of the Division of Dental Health

For the Year Ending June 30, 1946

By J. M. WISAN, D. D. S., *Chief*

Instead of the usual summation of yearly activities, the Division of Dental Health herein presents a review of its seven-year program (1939-1946). In essence, this report is an attempt to evaluate the efforts of the Division in attaining public health objectives. The criteria for the self-appraisal have been selected from among the 13 activities recommended by the American Public Health Association as desirable functions for a State health department. Of the 13 functions recommended, the following eight seem to include dental phases and will, therefore, be used as the sub-headings for this report.

- I Study of State Problems and Planning for Their Solution.
- II Coordination and Technical Supervision of Local Health Activities.
- III Financial Aid to Local Health Departments as Required.
- IV Establishment and Enforcement of Minimum Standards of Performance of Work of Health Department, Particularly in Communities Receiving State Aid for Public Health.
- V Maintenance of Laboratory.
- VI Collection and Distribution of Information Concerning Preventable Diseases.
- VII Provision of Services to Aid Industry.
- VIII Formulation of Plans in Cooperation with other Appropriate Agencies.

I—A. *Study of Dental Health Problems.*

1. Dental needs of school-age children:
 - a. The median percentage of school-age children requiring dental treatment was 91%.
 - b. The median average number of defective teeth per child (6-14 years of age) was 4.5.
 - c. Only 21% of the filling needs of permanent teeth among 6-14 year old children were being met; 9% of the filling needs of permanent teeth were being met for 6-8 year old children.
 - d. Dental needs were greater in low income areas. In one low income community, 87% of the children had never had a tooth filled.

- e. Only 11% of rural school districts with less than 2,000 population had dental treatment programs for children (1940).
 - f. 18% of all New Jersey school districts had dental treatment programs for children (1940).
2. Comparison of dental caries susceptibility rate among children in six "fluorine" areas as compared with the susceptibility rate among children in other areas: Children 6-14 living in "fluorine" areas (where public water supply showed one to two parts per million fluoride) had 48% less caries experience than did children in the "non-fluorine" areas.
 3. Statewide rural and suburban treatment programs were utilized to obtain the following information:
 - a. Five-year preventive dental treatment programs proved effective. In one community, for example, from 1940 to 1945, the percentage of all school children requiring dental treatment was reduced from 95% to 85%, and the number of defective teeth per child was reduced from 5.4 to 4.1. During the same period (1940-1945), among the children receiving initial and maintenance treatment, the percentage requiring treatment was reduced from 95% to 51%, and the number of defective teeth per child was reduced from 5.4 to 1.6.
 - b. Where preventive dental programs were not instituted, dental conditions had worsened. Even in a high economic level community without a dental program, from 1940-1945, the number of defective teeth increased from 3 to 3.5 per child.
 - c. The average child required, annually, two dentist-hours. The average completed case required 2.6 dentist-hours to provide necessary extractions and fillings for deciduous and permanent teeth, prophylaxis and X-rays.

B. Planning for Solution of Dental Health Problems.

1. Objectives designated from above studies:
 - a. Dental health education programs with emphasis on younger children.
 - b. Above data indicated that a dental treatment program had to be limited in scope. A feasible limitation seemed to be the designation of a preventive dental treatment program for younger children of low income families in rural and suburban areas.
2. Procedures planned:
 - a. Marshal public support by organizing state committees and local dental health committees and obtaining the collaboration of state and component dental societies.
 - b. Establish demonstration programs.
 - c. Designate feasible policies for different types of treatment programs. (Clinic, trailer, mobile clinic and private office.)
 - d. Obtain state and local funds for treatment programs in rural and suburban areas.
 - e. Organize preventive dental treatment programs in as many rural and suburban areas as possible.

II—Coordination and Technical Supervision of Local Dental Health Activities:

In New Jersey, local dental health activities are administered by local agencies, particularly boards of education and local boards of health. The Dental Health Division of the New Jersey State Department of Health has no authority to coordinate or supervise local dental programs unless included in its program or when requested to do so by local authorities for programs with only local financing and local sponsoring.

Collaborating with the State Department of Education through the Division of Physical Health and Safety Education, examination and treatment forms were designated to effect more uniform reporting of dental treatment programs. As these forms become more widely used, it will be possible to obtain more effective coordination of local dental programs and to recommend criteria for technical supervision of dental programs.

Professional technical policies for dental care programs have been determined in collaboration with the New Jersey State Dental Society and the New Jersey Society of Dentistry for Children. It is noteworthy that the experiences in New Jersey helped in formulating two nationally published standards, (1) "Dental Care Plans for Low Income Groups", published by the Council on Dental Health of the American Dental Association, and (2) "Dental Health" in "Suggested School Health Policies, Revised", second edition, published by the National Committee on School Health Policies.

Coordination has been obtained among the dental treatment programs sponsored by the State Department of Health by organizing local and county dental health committees as units of the state dental health committee. The technical supervision of the Department's dental treatment program has been one of the factors in setting professional standards. Field supervisors periodically examine groups of treated children to observe the quality of treatment provided by participating dentists. Table I shows the accomplishments of the various local programs and indicates the total performance of all the programs conducted by the dental division.

III—Financial Aid to Local Health Departments: Of the total 1945-1946 budget of \$84,176, \$66,956, or 79%, of the total budget of the dental division was allocated for local dental programs. This amount may be itemized as follows: \$57,400 for participating dentists, \$2,586 for salaries and traveling expenses of dental aides, \$2,460 for salaries and traveling expenses of field representatives, \$1,860 for salary of driver-clerk of the mobile clinic, \$500 for dental supplies, \$1,200 for dental equipment, \$950 for maintenance of mobile clinic—a total of \$66,956.

It has been estimated that approximately 75% of the time of the central office staff, including field representatives, is utilized for the direct benefit of local programs. This factor, and providing health education material, added \$10,631, or 13%, of the total budget to the amount expended on local dental programs. Therefore, a total of 92% of the budget of the dental division is spent directly or indirectly on local programs.

It will be noted that the American Public Health Association, in its discussion of the activities of a state health department, makes provisions only for financial aid to local health departments. The Dental Health Division of the New Jersey State Department of Health does not function on this basis. Since its local dental programs are administered by coordinating committees repre-

TABLE I.—THE FOLLOWING TABULATION DESCRIBES THE SCOPE AND THE ACHIEVEMENTS OF THE TREATMENT PROGRAM JULY 1, 1946-JUNE 30, 1948

Program	Intended	Type of Program	Dentists	Communities	Children Treated	Operating Time (Hours)	Visits	Extractions	Fillings	Tempor. Fillings	Proph. X-rays	Total Operations	Cases Completed	Percentage of Completions															
Bergen County	1948	P. O.	2	6	51	68	137	24	147	9	15	230	394	48.1%															
Burlington County	1940	Clinic	1	1	411	1,067	1,029	43	1,032	0	1,401	2,289	894	38.5%															
Burlington County	1942	Clinic	2	1	49	141	220	53	193	6	36	174	24	20.9%															
Camden County	1945	M.O. Cl.	1	10	509	1,239	1,358	17	3,106	194	468	10	412	51.7%															
Cape May County	1944	P. O.	1	1	88	84	120	63	7	15	48	173	27	30.9%															
Cumberland County	1942	P. O.	4	17	206	108	109	88	18	87	262	36	47	27.9%															
Essex County	1944	Clinic	2	1	273	631	1,274	24	2,519	85	273	80	214	77.8%															
Essex County	1946	Clinic	1	28	378	528	968	49	1,272	100	116	67	214	77.8%															
Gloucester County	1946	Clinic	1	1	161	499	784	22	1,038	457	72	78	940	68.8%															
Gloucester County	1942	P. O.	5	9	163	276	518	146	838	371	108	8	860	52.8%															
Hudson County	1943	Trp.	2	1	245	277	702	200	894	18	248	23	948	87.9%															
Hudson County	1945	Clinic	4	6	124	563	477	121	33	195	107	684	102	66.5%															
Monmouth County	1944	Clinic	12	28	649	1,015	2,241	641	1,119	690	507	174	4,086	617	79.7%														
Morris County	1944	Clinic	1	1	130	354	354	75	64	271	28	24	68	20	31.8%														
Netter Fd.	1945	Clinic	1	24	814	2,243	850	121	825	60	76	49	21	1	8.8%														
Ocean County	1942	P. O.	13	24	114	573	972	110	60	159	261	137	251	24	21.8%														
Ocean County	1946	Trp.	1	1	15	35	1,035	1	18	6	2	9	9	9	50.7%														
Passaic County	1945	P. O.	1	1	17	74	101	11	136	9	1	48	168	40.0%															
Passaic County	1945	Clinic	1	1	17	74	101	11	136	9	1	48	168	40.0%															
Passaic County	1945	Clinic	1	1	17	74	101	11	136	9	1	48	168	40.0%															
Passaic County	1941	Clinic	2	1	62	113	159	148	27	117	66	151	18	76.6%															
Passaic County	1942	Trp.	1	10	533	1,945	4,689	1,028	2,724	131	180	188	862	751	87.9%														
Passaic County	1943	Trp.	1	1	94	250	815	67	97	28	89	89	299	482	58.8%														
Passaic County	1943	P. O.	4	11	94	250	815	67	97	28	89	89	299	482	58.8%														
Passaic County	1948	Clinic	1	1	122	378	478	6	122	593	12	4	24	87	61.7%														
Passaic County	1948	Clinic	1	1	48	208	416	61	318	12	4	24	87	61.7%															
Warren County	1945	Clinic	1	10	49	110	184	28	18	65	10	10	221	56	78.5%														
Warren County	1946	P. O.	1	10	49	110	184	28	18	65	10	10	221	56	78.5%														
Totals—47 Counties														86,171	5,752	10,875	23,951	11,839	31,323	4,779	31,699	3,358	2,892	1,696	6,068	2,341	38,215	8,984	88.9%
Code for Type of Program: P. O.—Private Office; M. O. Cl.—Mobile Clinic; Trp.—Travelling																													

senting a number of local agencies, the State Department of Health does not subsidize one local official agency, but rather the coordinating agencies administering dental programs.

IV—Establishment and Enforcement of Minimum Standards of Performance of Work of Health Departments, Particularly in Communities Receiving State Aid for Public Health: The Dental Health Division, with the aid of the New Jersey State Dental Society and the New Jersey Society of Dentistry for Children, has established preventive dental treatment programs as a minimal standard for community dental programs. Preventive dental treatment programs may be defined as programs that provide initial, "complete" treatment (including all necessary extractions, silver amalgam and silicate cement fillings, prophylaxis and X-rays) to children 5-10 years of age, maintenance treatment to all school-age children previously given completed treatment in the program, and emergency treatment (removal of infection and relief of pain) to children over ten years of age, not previously given completed treatment in the program. The Dental Division has also established a minimal standard for group dental inspections of pre-school and school-age children; mouth mirror and explorer examination should be conducted by a dentist, findings are to be charted and compiled on forms recommended by the New Jersey State Department of Health and the New Jersey State Department of Education.

As stated under Coordination (II), the Dental Health Division cannot enforce such standards in communities not included in its program. However, it is hoped that as results from the Department's program became evident, preventive dental programs will become the rule rather than the exception in locally managed programs in New Jersey.

V—Maintenance of Laboratory for Dental Health Purposes: Bacteriological laboratories may assist dentists in diagnosing Vincent's infection (trench mouth) and in making tests of caries activity in individuals by ascertaining lactobacilli counts from specimens of saliva.

Since it has been observed that intrinsic factors as well as extrinsic factors influence the onset of Vincent's infection, interest in laboratory tests for trench mouth has waned.

On the other hand, interest in lactobacilli counts in saliva has increased in the past few years due to the work performed at the University of Michigan. Because of crowded conditions in the laboratory of the New Jersey State Department of Health and because of the lack of personnel, the dental division has not encouraged the Department to make tests for caries activity. However, this constitutes a lack in our dental program which the Dental Division will attempt to rectify.

In analyzing the contents of New Jersey public water supplies, the Bureau of Chemistry of the New Jersey State Department of Health discovered that six communities in New Jersey had a fluorine content of one to two parts per million. The Dental Health Division, utilizing this information, studied dental conditions in those six communities and, as stated under the heading Studies of Dental Health Problems (I), found that dental conditions among school-age children were far better in the so-called "fluorine" areas than they were in the "non-fluorine" areas.

VI—*Collection and Distribution of Information Concerning Dental Diseases:* The Dental Division has geared its dental health educational efforts for motivation and not for mere dissemination of information. Authorities agree that neither the number of exhibits nor the number of leaflets printed and distributed measure the results of educational programs. An effective dental health educational program is the result of wider adoption of dental health practices.

To accomplish motivation for dental health, the Dental Health Division utilizes its dental health committees—18 county and local committees made up of 270 representatives of health, welfare and educational groups—to stimulate educational efforts by schools, health departments, parent-teacher groups, service clubs, women's groups and dental societies. In turn, these organizations influence many individuals.

The Dental Division provides scholarships for dental health education courses sponsored by State Teachers Colleges and Seton Hall College. In-service teachers and nurses are given, by means of 15 weekly sessions, information concerning the promotion of community dental programs. Also if the opportunity presents itself, staff members of the Dental Health Division visit the communities of the class members to help organize preventive dental programs.

Literature published by the Division stresses dental health practices. Source units were published to encourage elementary and high school teachers and members of parent-teacher groups to conduct dental health educational programs. These publications, prepared for the Department by a joint committee of health educators and dentists, present authentic information with emphasis on prevention. One of the most successful bulletins published by the department was the leaflet "Rural and Suburban Dental Health Programs." The National Publicity Council said of this bulletin: "When Figures Pack a Punch: Once in a while, statistics can tell your story more convincingly than any words. The dental health program of the New Jersey State Department of Health provides just such an instance. For its recognition of the strengths in its story, for its discriminating selection of statistics and for its clean, uncluttered presentation, the department's new booklet deserves careful study."

VII—*Provision of Services to Aid Industry:* The Dental Health Division has done little in the field of industrial dentistry. On a few occasions, staff members have advised representatives of industry concerning authentic dental health information to be disseminated among industrial workers.

Much remains to be done in this field as the Division of Industrial Hygiene expands its activities; and as plans are designed by the Director of the Bureau of Preventable Diseases for the coordination of the Division of Dental Health and the Division of Industrial Hygiene, there will be increased activities in the field of industrial hygiene.

VIII—*Formulation of Plans in Cooperation with Other Appropriate Agencies.*

A. Plans formulated:

1. To obtain state and local funds.
2. To stimulate more communities to provide preventive dental programs.
3. To provide suitable types of dental treatment programs for the rural and suburban communities.

B. The following state agencies and organizations have collaborated with the dental health division:

1. Commonwealth Dental Society of New Jersey.
2. Consumers' League.
3. New Jersey Conference National Council of Jewish Women.
4. New Jersey Congress of Colored Parents and Teachers.
5. New Jersey Congress of Parents and Teachers.
6. New Jersey Crippled Children's Commission.
7. New Jersey Education Association.
8. New Jersey Federation of Women's Clubs.
9. New Jersey Health and Sanitary Association.
10. New Jersey Health Officers Association.
11. New Jersey League of Women Voters.
12. New Jersey Tuberculosis League.
13. New Jersey State Board of Education.
14. New Jersey State Dental Society.
15. New Jersey State Department of Education.
16. New Jersey State Department of Health.
17. New Jersey State Department of Institutions and Agencies.
18. New Jersey State Division American Association of University Women.
19. New Jersey State Industrial Union Council.
20. New Jersey State Municipal Aid Administration.
21. New Jersey State Organization for Public Health Nursing.
22. New Jersey State Organization for Public Health Nursing, Lay Section.
23. New Jersey State Rural Dental Health Committee.
24. New Jersey Welfare Council.
25. Parochial Schools, Dioceses of New Jersey.
26. State Federation of District Boards of Education in New Jersey.
27. Union County Welfare Council.

C. Results:

1. *Funds:* Table II shows the amount of Federal, State and local contributions making up the budget of the Dental Division of the New Jersey State Department of Health.
2. *Community Dental Programs:* The number of New Jersey school districts with preventive dental treatment programs increased from 99, or 18%, of the total school districts in New Jersey in 1940, to 279, or 50%, of the total school districts, in 1945.
3. Table III shows the development of the dental treatment program of the New Jersey State Department of Health.

TABLE II
BUDGET—DENTAL HEALTH DIVISION, NEW JERSEY STATE DEPARTMENT OF HEALTH, 1939-1946

	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46
	Amount	Amount	Amount	Amount	Amount	Amount	Amount
Federal contributions (U. S. P. H. S.)	\$5,240	\$12,968	\$14,615	\$14,972	\$15,021	\$16,270	\$19,369
State contributions	.....	.....	12,000	12,167	37,795	50,900	64,707
Local contributions	.....	3,200	4,900	4,300	8,500	9,967	22,800
Total	\$5,240	\$16,168	\$31,515	\$32,059	\$75,316	\$77,137	\$106,876
	100%	100%	100%	100%	100%	100%	100%

TABLE III

INCREASE OF ACTIVITIES—DENTAL TREATMENT PROGRAM OF THE NEW JERSEY STATE
DEPARTMENT OF HEALTH, 1939-1945

	1939	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46
Number of children treated	0	839	2,088	2,846	3,613	5,094	5,732
Number of communities included	0	25	59	109	160	171	171
Number of counties included	0	2	8	10	16	17	17

During 1946, 69% of the children included in the program were given all necessary fillings and extractions.

Report of Division of Industrial Health

July 1, 1945-June 30, 1946

By J. C. RADCLIFFE, *Chief*

The fiscal year ending June 30, 1946, was marked by a continued advance in industrial health activities as promoted by this Division.

The personnel in these offices was increased from six, at the termination of the war, to a presently active total of 14. This increase in personnel has done much to further the industrial health program in the post-war industrial activities.

COVERAGE OF INDUSTRY OF STATE

The following table shows the type of industry served.

Industry Group	No. of Plants Visited	No. of Employees in Plants	No. of Projects Handled	No. of Visits by Staff
Chemical and allied products	42	21,953	46	50
Machinery (except electrical)	35	7,866	40	48
Iron and steel except machinery	24	3,275	26	28
Electrical machinery	19	22,918	24	29
Stone, clay and glass products	18	6,458	23	29
Apparel and other finished textiles	16	3,552	21	22
Textile mill products and fibres	15	11,863	17	21
Food and kindred products	13	9,974	15	17
Paper and printing and allied industries.	13	689	15	15
Nonferrous metals and their products..	10	4,501	16	19
Lumber and timber basic products	9	450	9	11
Transportation equipment	5	5,089	6	8
Rubber products	5	249	6	8
Products of petroleum and oil	2	2,116	2	3
Miscellaneous industries	14	541	14	17
All Industry Groups	240	101,494	282	325

Of the 240 plants visited, 184, or 77%, employed 500 workers or less, while 118, or 49%, employed 100 workers or less. These figures emphasize the activities of the Division in the smaller, rather than the larger plants. It has frequently been demonstrated that the smaller plants require more assistance from outside agencies in providing adequate industrial health programs.

Of the 325 staff visits to plants, 259, or 80%, were requested and 20% self-initiated. This was an increase in requests over last year when 54% of the plant visits were requested. The figure for 1943-1944 was even lower being 48%. The steady increase in request visits to industry is important, as it indicates that the consultation services of the Division are in increasing demand.

Services offered by the Division are of two general types: (1) in-plant environmental engineering (assistance with plant lighting, ventilation, control of noise, dust, fumes, gases, and the like), and (2) medical and nursing assistance and consultation on plant health problems and activities. Of the 282 projects handled, 196 were in-plant environmental engineering projects (69% of the total services), and 86 were medical-nursing projects (31% of the total services). The medical and nursing activities were finally fully developed during the latter part of the fiscal year when personnel became available. This slow development contributed to the lack of balance in the above mentioned figures.

In addition to classifying services according to their character (engineering and medical), they may be grouped according to their objectives, such as whether they were complete surveys of a plant, or whether they studied specific industrial health problems, or whether they were follow-ups on recommendations made previously. During the 282 projects, 160 surveys were conducted, 101 special problems were handled, and 21 follow-up visits were made.

Of the 240 different plants visited, 148, or 62%, had never been visited by the Division before. The other 92, amounting to 38%, had received Division services during previous years. The large increase in new plants serviced indicates that the Division acquainted a large number of industries with our program, yet handled the problems of many plants well familiar with the services of this Division.

After a plant survey or consultation, a confirming report is forwarded to the plant containing specific recommendations as indicated. A total of 427 such recommendations were made during the fiscal year.

The basis for a majority of the recommendations made during the year are the results of the analysis of air, raw products, urine and blood samples collected by the engineers, physicians and nurses at work locations or from individuals working at operations where health hazards exist. The follow-

ing table indicates the number of analyses made, both in the laboratory and in the field by direct reading instruments according to the suspected toxic material:

TABLE 2—LABORATORY ANALYSES AND FIELD DETERMINATIONS

Lead	509	Carbon monoxide	7
Ventilation determinations	152	Phenol	7
Patch tests	60	Chloral hydrate	6
Fluorine	41	Soap	6
Dust counts	38	Free silica	5
Blood tests	32	Nitrous oxide	4
Benzol	29	Chromic acid	3
Mercury	27	Oil mist	3
Chlorinated hydrocarbon	19	Zinc	2
Manganese	18	Cadmium	2
Hydrogen cyanide	15	Ethyl acetate	2
Anthrax	9	Illumination	2
Relative humidity	9	Miscellaneous	5
Chlorine	8		
		Total	1,020

This total of 1020 analyses is made up of 665 laboratory results, and 355 results from direct reading instruments. These results indicate a great increase in the service offered industry, yet in many instances the amount of sampling completed has not been adequate. Definite expansion of this phase of the Division's activities is needed at the present time.

SPECIAL PROJECTS

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

Medical Care for Agricultural Migrant Workers

A final report on medical care for agricultural migrant workers was presented during the fall of 1945 to the Migrant Labor Board of the New Jersey State Department of Labor. In this report a summary of the existing facilities and program was given, with two recommended means of supplementing these facilities so as to provide a minimum medical program for these workers. Since then, definite action on these recommendations has been taken and a program has been initiated.

Community-Wide Industrial Health Surveys

During the past twelve-month period, a series of community-wide industrial health surveys have been initiated in six communities. Four of

these surveys have been completed and requests for further work along this line has been received from other communities. In all cases this Division, in co-operation with the local health officer, surveys all industries in the specific town, for the purpose of developing techniques for bringing industrial health service to the small factories. These are the plants which usually cannot afford their own industrial hygienists, and at the same time they are not familiar with what official services are available to them. These community-wide surveys are the only such studies ever undertaken or completed in any of the states doing industrial health work.

Atomic Bomb Contamination

A complete study of atmospheric and vegetation contamination was made in co-operation with other Divisions of this Department in an area surrounding a few large industries directly concerned with producing essential parts of the atomic bomb. The final report of this study indicated that the proposed additional control measures being instituted by these industries should mitigate the contamination, and further rechecks have substantiated this contention.

Physical Examination Program

A series of physical examination programs have been carried on by the physicians and nurses from this office on persons known to be working in atmospheres contaminated with excessive amounts of toxic materials. These programs included special examinations to determine the effects of excessive concentrations of lead, manganese, hydrogen fluoride, chromic acid, hydrogen cyanide, carbon tetrachloride and dermatitis producing plastics.

Noise Control

One program was instituted for the control of a high frequency noise of continual duration. The effects of this control program were not immediately determined, but this field of activity will require more positive action in the future, especially as it relates to good industrial relations programs.

Radium Painted Dial Disposal

At the close of hostilities, a special control program for the safe disposal of radium painted dials was instituted to reduce the possibilities of radium exposure as related to the large scrap and salvage program.

Estrogenic Hormones

A special study was conducted to determine the true effects of estrogenic hormones on workers so exposed.

GENERAL

The promotional activities of this Division were expanded to further acquaint industry with the latest advances in industrial health and with the activities of the Division in general. Preliminary arrangements were made at several dozen plants for x-ray surveys later completed by the Division of Tuberculosis Control. The programs of other Divisions were promoted at every opportunity.

The mailing list of plants, safety engineers, industrial physicians and nurses was revised and enlarged as required by the change in industrial production after the cessation of hostilities. The industrial health bulletin was released to these groups regularly. Fourteen talks were delivered, two exhibits were displayed, and nine articles were published. One course in industrial hygiene was conducted in co-operation with Rutgers University. Several demonstration projects on record keeping, tailored according to the type of industry, have been initiated as part of the development of the nursing activities.

A New Jersey Section of the American Industrial Hygiene Association was formed, and personnel of this office are actively engaged in its program.

Four large industries were instructed in the development of in-plant industrial hygiene laboratories, and the library of this Division was used extensively by industry, as evidenced by the 48 different requests for information regarding the toxicity of special materials.

Report of the Division of Maternal and Child Health

For the Calendar Year 1945

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

MATERNAL MORTALITY

The 1945 maternal mortality rate of 1.5 per 1,000 live births is the lowest rate ever attained in New Jersey. The gradual decrease in the maternal mortality rate observed in New Jersey is evidence of the effectiveness of the educational health activities that have been stressed during the past 25 years.

INFANT MORTALITY

The 1945 infant mortality rate of 32 per 1,000 live births is, next to the 1942 rate of 31, the lowest that has been observed in New Jersey.

Salem County, with 970 births, had an infant mortality rate of 25 per 1,000 live births, which is the lowest among the 21 counties. Bergen County, with 7,930 births, had an infant mortality rate of 26 per 1,000 live births. Cape May County, with 543 births, had the highest rate of 48 deaths per 1,000 live births.

Of the cities with more than 1,000 births per year, Irvington, with the rate of 21, was the lowest. Camden, with a rate of 51, was the highest.

HOME DELIVERY NURSING SERVICE

The program to make a registered nurse available to assist physicians at home deliveries has been continued. During the past year 20 registered nurses assisted at 159 home deliveries. Seven additional home deliveries were attended by nurses from local Visiting Nurses Associations. The use of the home delivery nursing service has shown a decrease in the past three years.

Obstetrical consultants were also available for home deliveries, but the service was requested by the attending physician in only one case.

Eleven of the home deliveries were servicemen's wives for which the EMIC program provided the funds.

BABY KEEP-WELL STATIONS

One hundred and eighty Baby Keep-Well Stations conducted throughout the State were under the supervision of the Division of Maternal and Child Health. Physicians serve in 96 of these stations. In 67 stations the doctor in attendance was paid from Social Security funds. In 29 stations the doctors in attendance were either paid locally or served without compensation.

The doctors in the 67 stations saw 707 new babies during the year. The doctors in the 67 stations made 2,998 examinations. A total of 964 examinations were made on 389 children of pre-school age.

EDUCATIONAL ACTIVITIES

Plans are being made to conduct a series of conferences for the nurses under the supervision of the Division of Maternal and Child Health covering the practical aspects of mental hygiene and parent-child relationships. The material will be presented in such a way that the individual nurses may be able to apply it in their anticipatory guidance work in the home and in the Baby Keep-Well Station. A pediatrician on the staff of the Division will be in charge of the child guidance program and a psychologist will be appointed to assist in the planning and development of the program.

AUDIOMETER

The audiometer for testing the hearing of school children was in constant use during the school year. A total of 8,597 children were given their initial test. A total of 1,135 re-tests were made and the 598 children found to have hearing defects were referred to their family physicians for care.

MATERNITY HOMES

Fifteen maternity homes were granted a renewal of license by the State Department of Health. All maternity homes licensed by the Department are inspected periodically.

EXTENSION OF ACTIVITIES

There are now 248 nurses working under the supervision of the Division of Maternal and Child Health.

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

Raritan	Somerset County
Bridgewater Township	Somerset County
Harrison Township	Gloucester County
South Harrison Township	Gloucester County
South Amboy	Middlesex County

The following communities have assumed a portion of the balance of the nurse's salary:

<i>Atlantic County</i>	E. Greenwich Twp.	<i>Somerset County</i>
Mullica Twp.	Westville	Raritan Twp.
Buena Vista Twp.	Clayton	<i>Sussex County</i>
Atlantic City	Mourao Twp.	Wantage
<i>Bergen County</i>	<i>Hunterdon County</i>	Sussex
River Edge	Franklin Twp.	Hardiston Twp.
Hackensack	Readington Twp.	Hamburg Twp.
Hillsdale	Frenchtown	Lafayette Twp.
Lyndhurst	Milford	Vernon Twp.
Northvale	Lambertville	Branchville
Hasbrouck Heights	Holland Twp.	Frankford
East Paterson	High Bridge	Montage Twp.
Lodi	<i>Mercer County</i>	Sandyston
Palisade Park	Washington Twp.	Walpack Twp.
So. Hackensack Twp.	West Windsor Twp.	Andover Twp.
East Rutherford	Ewing Twp.	Byram
<i>Camden County</i>	<i>Middlesex County</i>	<i>Union County</i>
Somerdale	Raritan Twp.	Cranford Twp.
Voorhees Twp.	<i>Morris County</i>	Garwood
Clementon	Pequannock Twp.	Hillsdale
Winslow Twp.	<i>Salem County</i>	Winfield Twp.
<i>Gloucester County</i>	Elsinboro	<i>Warren County</i>
Washington Twp.	Lower Alloway Twp.	Belvidere
Woodbury Heights	Mannington Twp.	

STATISTICAL SUMMARY OF NURSES' WORK

Of the 248 field nurses under the supervision of the Division of Maternal and Child Health, 161 were paid by the communities in which they work, 16 were paid entirely by the State or from Social Security funds, and 71 were paid partly by the State and partly by the communities.

The 248 field nurses had under their supervision 17,345 expectant mothers, 16,289 post-partums, 39,721 infants, 76,220 children between one and six years of age, and 132,463 school children.

Home visits by the nurses	484,060
To expectant mothers	41,622
To infants	178,368
To post-partums	37,826
To children (1 to 6)	170,635
To school children	55,609
Visits to Baby Keep-Well Stations	40,931
By babies	27,370
By pre-school children	13,561

Expectant mothers (prenatal advice, cases supervised)	17,345
Total pregnancies terminated	10,552
Post-partum supervised	16,289
Infant care, total babies supervised	39,721
New cases	20,721
Pre-school children supervised (1 to 6 years)	76,220
New cases	23,234
Child Hygiene Leagues (classes conducted)	401
Dental sessions assisted by nurses	1,102
Mother's classes conducted by nurses	31
Children under one year vaccinated	2,310
Children one to five years of age vaccinated	6,341
Children under one year of age given diphtheria immunization	7,607
Children one to five years of age given diphtheria immunization	6,470
School children supervised	132,463
Inspections (annual, general, or assisting doctor)	789,644
Children immunized against diphtheria	3,381

ILLEGITIMATE BIRTHS

There were 2,207 out-of-wedlock births reported, representing 2.8% of the total births. The out-of-wedlock births reported increased 248 over the 1944 figure. Nearly 50% of the mothers were under 21 years of age.

MIDWIFERY

There were 200 licensed, registered midwives in New Jersey in 1945. Of this number, 180 were supervised by the State Department of Health and 20 by a local department. The midwives delivered only 889 of the 76,995 births, or about 1%. The number of deliveries by midwives is gradually decreasing. In 1918 the midwives delivered 42% of the births in the State, in 1928 16%, in 1938 4%, and in 1945 1%.

The midwives reported 31 abnormal cases. In 29 instances doctors were called for assistance and in six instances the patient was sent to the hospital.

Midwives report all cases of congenital deformities to the Crippled Children's Commission.

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

The program set up for the benefit of the wives of servicemen and their infants continued with the co-operation of some 2,000 physicians and the hospitals throughout the State. During the year 8,962 maternity cases were authorized to receive care and 1,517 infants received medical and hospital care.

Since the plan became effective in April, 1943, and until December, 1945, 24,756 maternity cases and 3,028 pediatric cases were authorized to receive care.

Negro Health Program

For the Year Ending June 30, 1946

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

This program, in the sixth year of its existence, has seen continuous growth in the promotion of public health among this minority group of the State in both rural and urban sections. Observing the basic principles of public health practice, that efforts should be directed to needs rather than on a population ratio basis, health education remains an essential weapon in fighting disease among groups with material disadvantages. Health education, to be effective, must reach all people; therefore, co-operative efforts of all agencies of the community are indispensable requisites for an adequate coverage.

To interpret the advances in public health practices, we emphasize case-finding for tuberculosis, such as community chest X-ray surveys; blood testing for venereal disease control among the masses; immunization against smallpox, diphtheria and whooping cough in rural schools; and health education for the masses through newspapers, the radio, exhibits, posters, pamphlets and health meetings. We are finding that these methods are not always best; therefore, we are gradually concentrating and directing more efforts toward the individualized approach of home visits. Our three public health nurses, through home visits, learn the needs and problems of the family and community and serve as family counselors in the field of health. They also enlist the aid of these citizens for the promotion of mass X-ray surveys, baby clinics, health meetings, and other phases of their work. The consultant studies the needs of areas where there is an appreciable Negro population and then discussions are held with various agencies and community representatives whereby suggestions may be made and plans formulated for utilizing or bringing to them necessary health facilities.

We co-operate with the Bureau of Venereal Disease Control, supplying nursing services in the venereal disease clinics and for follow-up of necessary cases among the migrant farm workers in the Hightstown and Cranbury areas. One of our nurses participates in the maternal and child health program, on a part-time basis, in the Lawnside-East Berlin area,

doing school nursing and supervising the Baby Keep Well Station. We also work with the United States Public Health Service for the advancement of the annual celebration of National Negro Health Week. In line with this celebration, a state meeting is held in Trenton to review the year's activities and present certificates of merit from the U. S. Public Health Service to county representatives in commendation of their effective participation. This year approximately 200 persons were present, with 16 counties represented. A person prominent in the field of public health, Dr. H. Maceo Williams, of the Baltimore Health Department, was the guest speaker on the subject, "The Volunteer Worker in the Public Health Movement." The N. J. State Department of Health presented a plaque to the county promoting the most active health educational program, which this year was Camden.

The activities of this program are summarized under the following headings:

I. Health Education

A. Health meetings	62
Approximate number of people reached	10,477
Number of speakers (from Speakers Bureau)	38
Localities participating	35
Subjects discussed:	
Housing and health	19
Tuberculosis control	16
Cancer control	7
Venereal disease control	35
Petting among 'teen agers	2
Child care	1
Nutrition	2
B. Film showings. Subjects relating to speaker's topic	28
C. Literature. Pamphlets distributed (at health meetings and when making home visits)	36,703
D. Radio broadcasts. Stations WTTM and WTNJ, Trenton	4
E. Home visits by three public nurses	1,390

II. Case-Finding—Tuberculosis

A. Chest X-ray surveys	4
Persons X-rayed	947
Results:	
Non-tuberculous pathology	113
Negatives	564
Re-infection tuberculosis:	
Minimal	2
Far-advanced	1
(Both of the minimal cases are hospitalized. The far-advanced one died shortly after being placed in sanatorium.)	
Chest X-ray clinics were held in:	
Newark	Roselle
Trenton	Vauxhall

B. Blood-testing program	1
Number of persons blood tested	19
Results:	
Negatives	18
Positive	1
(Receiving treatment with family physician.)	

III. Immunization Clinics

Clinics	7
Diphtheria and whooping cough toxoid (first and second doses)	76
Vaccinated against smallpox	115
Clinics were held in schools in:	
Burlington	Fenwick
Port Norris	Claysville
Gouldtown	Marshalltown
Salem Township	

We should not close without mentioning that this program was organized to assist the existing agencies, and we functioned this past year in rapport with the following agencies and associations:

County Tuberculosis Leagues in Atlantic, Burlington, Camden, Cumberland, Essex, Gloucester, Mercer, Middlesex, Passaic and Union Counties.
 Community Centers—Lawnside, Trenton, Princeton.
 Negro clergy throughout the State.
 Health officers throughout the State.
 Local boards of health—Newark, Vauxhall, Roselle, Camden, Trenton, Atlantic City and Burlington.
 Schools—Salem, Port Norris, Gouldtown, Trenton, Atlantic City, Asbury Park and Lawnside.
 New Jersey State Medical Association.
 Mercer County Board of Freeholders.
 Visiting Nurse Association in Trenton.
 Y. W. C. A.'s and Y. M. C. A.'s—Trenton, Passaic, Camden and Plainfield.

We realize that the above mentioned facts do not represent startling accomplishments, but we do feel that it is through these channels that the health status of the people of our State will realize gradual improvements, but no program is satisfactory unless it includes all groups. We know too well of the numerous health problems of the Negro and the disproportions existing in the mortality rates, but it must be remembered that the local social patterns and attitudes of all health workers are reflected in these rates.

SUMMARY

Localities	Health		Film		—Immun.—		Blood Tests	Home Visits
	Meet-ings	Approx. Att'n.	Show-ings	x-ray Surveys	Tox.	Vac.		
Atlantic City	5	1,112	5	..	..	..	..	..
Milmy	1	200	..	..	..	..	..	..
Pleasantville	1	85	..	..	..	..	..	..
Leonia	1	25	..	..	..	..	..	..
Beverly	1	25	..	..	..	..	..	..
Bordentown	1	275	1	..	..	..	..	..
Burlington	1	300	..	..	8	10	..	..
Moorestown	1	25	..	..	..	..	..	..
Camden	12	2,071	13	..	..	..	114	..
Jericho	1	85	..	..	..	..	2	..
Lawnside	1	97	..	..	..	..	6	..
Merchantville	1	80	..	..	..	..	..	..
Bridgeton	2	128	..	..	..	..	..	..
Port Norris	..	..	..	..	34	47	12	..
Millville	1	10	..	..	..	..	10	..
Gouldtown	..	..	..	..	10	22	5	..
Belleville	1	100	..	..	..	..	..	..
Newark	16	2,352	..	343	..	..	24	..
Orange	1	90	..	..	..	..	..	..
Paulsboro	1	25	..	..	..	..	..	..
Swedesboro	1	100	..	..	..	..	12	..
Woodbury	2	120	1	..	..	..	19	19
Mullica Hill	2	134	..	..	..	..	..	16
Hightstown	2	150	..	..	..	..	..	..
Princeton	1	34	..	..	..	..	..	29
Trenton	6	1,256	1	308	..	..	..	210
Carteret	1	100	..	..	..	..	..	..
New Brunswick	2	60	..	..	..	..	..	..
Woodbridge	2	80	..	..	..	..	..	..
Cranbury (migrant farm workers)	..	..	..	..	..	..	..	29
Jamesburg (migrant farm workers)	..	..	..	..	..	..	..	33
Asbury Park	3	180	4	..	..	..	..	..
Belmar	1	48	..	..	..	..	..	..
Long Branch	1	60	..	..	..	..	..	..
Morristown	1	150	..	..	..	..	..	..
Passaic	..	..	..	..	..	..	..	198
Salem	..	..	..	..	7	9	..	..
Fenwick	..	..	..	..	7	6	..	..
Claysville	..	..	..	..	8	11	..	..
Marshalltown	..	..	..	..	2	10	..	..
Elizabeth	3	400	..	..	..	..	..	34
Plainfield	2	100	..	..	..	..	..	..
Roselle	2	75	..	129	..	..	..	190
Vauxhall	..	..	..	167	..	..	..	209
Washington	1	75	1	..	..	..	..	..
Total	82	10,477	28	947	76	115	19	1,390

Report of Rabies Control Unit

For the Calendar Year January 1, 1945 to December 31, 1945

By J. S. McDANIEL, Veterinarian-in-Charge

The Rabies Control Unit is pleased to report that the complete uniform licensing and the annual canvass of all dogs in the State of New Jersey, and the program of eliminating the stray dog, are progressing satisfactorily. Co-operation extended by health and municipal officials is most gratifying.

PERSONNEL

The working force of the Rabies Control Unit consists of a veterinarian-in-charge, one veterinary bacteriologist, two investigators, two emergency inspectors, one principal clerk and two clerk-stenographers.

REVENUE

As required by R. S. 4:19-15.2, during the calendar year 1945, registration tag fees were collected in the amount of \$79,710.40, covering the issuance of 318,842 dog licenses.

The following tabulation gives a recapitulation of receipts and expenditures since the enactment of Chapter 151, P. L. 1941, the Rabies Control Act:

Year	Revenue*	Expenditures**	Balance	Transferred to	
				General Fund of the State as Required by R. S. 4:19-15.11	Balance Remaining in Trust Fund (R. S. 4:19-15.11)
1942	\$84,667.10	\$10,025.57 (a)	\$53,288.98		
1943	80,521.65	\$21,352.55 (b)	19,745.71	114,064.92	
1944	78,112.00	19,745.71	168,848.71	\$27,724.02	\$141,124.69
1945	79,710.40	23,328.21	209,011.03	52,232.94	156,778.09
Total	\$323,011.15	\$86,276.10		\$79,956.96	\$156,778.09

*Revenue—on a calendar year basis.

**Expenditures—on a fiscal year basis.

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

(b) From June 30, 1943, to December 31, 1943.

(c) From June 30, 1945, to December 31, 1945.

(129)

INCIDENCE OF RABIES

According to records received by the Rabies Control Unit, 51 cases of rabies were reported in the following counties:

	Bergen	Essex	Hudson	Morris	Passaic	Union	Warren	Totals
January	1		1 (cat)			1		3 (1 cat)
February				1				1
March			2	1	1			4
April			4	1				5
May	3		1		1	1		6
June	8	1	3	1	1		3 (1 cow)	17 (1 cow)
July	1		1 (cat)					2 (1 cat)
August	1				1			2
September	1							1
October						1		1
November								0
December		4	4		1			9
Totals ...	15	5	16 (2 cats)	4	5	3	3 (1 cow)	51 (2 cats, 1 cow)

QUARANTINE

Because of the incidence of rabies in dogs in Bergen County and the danger of spread of the disease, the Rabies Control Unit recommended to the New Jersey State Department of Health that a quarantine be invoked in Bergen County as of June 25, 1945. In order to assist local board of health and municipal authorities in carrying out the provisions of the quarantine order, two emergency inspectors were engaged to assist these officials in patrolling the affected area. This quarantine order was still in effect as of December 31, 1945.

LEGAL ACTION

As a result of legal action taken by emergency inspectors of the Rabies Control Unit of the New Jersey State Department of Health, \$177 was collected in fines for violation of R. S. 4:19-15.2 (licensing) and R. S. 26:4-84 (quarantine), as follows:

FINES RECEIVED FOR VIOLATION OF R. S. 4:19-15.2

Municipality	Fine
Hillsborough Township, Somerset County	\$1.00
Woodland Township, Burlington County	5.00
Woodland Township, Burlington County	25.00
Freehold Township, Monmouth County	26.00
Marlboro Township, Monmouth County	5.00
Upper Freehold Township, Monmouth County	20.00
	<hr/>
	\$82.00

FINES RECEIVED FOR VIOLATION OF R. S. 26:4-84

Municipality	Fine
East Paterson, Bergen County	\$55.00
Lodi, Bergen County	40.00
	<hr/>
	\$95.00

EXPANDED PROGRAM FOR UNIFORM CONTROL OF DOGS IN NEW JERSEY

At a hearing before the Budget Committee, the State Department of Health requested an appropriation of \$45,500 be included in the 1946-47 budget of the Rabies Control Unit, to expand the rabies control program (as formulated after conferences with members of the Sub-Committee on Rabies, mayors' associations, local health and municipal officials in Bergen, Camden and Morris Counties). However, only \$25,000 was granted by the Appropriation Committee, thus necessitating a revision of the original plans.

Under the present set-up, in 1946 three mobile units will be available to assist local health and municipal officials in handling their dog problems.

Report of the Division of Tuberculosis Control

For the Year Ending June 30, 1946

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

The activities of the Division of Tuberculosis Control have been greatly expanded during the fiscal year ending June 30, 1946. The accelerated case finding program is now accompanied by a health education program, and plans for a more extensive clinic system throughout the State await implementation. This growth was made possible because of increased federal appropriations. Unfortunately, we are still without State funds.

This Division now has in operation two transportable X-ray units. These facilities are moved from county to county, conducting chest X-ray surveys among industrial plants, community and other groups entailing more than 500 persons. The additional unit, a North American Phillips 70 mm. photofluorogram, acquired during the year, was the means of accelerating the tuberculosis case finding effort. In addition, a trailer X-ray unit costing \$20,000 will shortly be delivered and it will be added to the case finding technique by this Fall. This mobile laboratory, equipped with X-ray apparatus, complete dark-room facilities, six dressing rooms, clerk's desk and heat and light will travel throughout the State conducting surveys of groups of less than 500 persons. This vehicle is also equipped with a generator to provide its own necessary electricity.

The central office has been expanded to accommodate the volume of work, and is located at 172 West State Street, Trenton; the central dark-room is located at 141 N. Warren Street, Trenton, and the warehouse is located at West Hanover and Barnes Street, Trenton.

ANNUAL REPORT OF THE DIVISION OF TUBERCULOSIS CONTROL

The administrative work of the Division has been greatly enhanced by the addition of a Supervisor of Public Relations. This supervisor meets with labor and management groups, with tuberculosis leagues and local health officials in organizing the case-finding program. He also schedules

the various units and has complete supervision over the technical staff. The latter now includes two supervisors of X-ray technicians, and six X-ray technicians, while the office personnel is now eight in number. With the number of films to be read increasing each day, it is hoped that a medical assistant will soon be employed to shoulder some of the burden.

In the past year, 28 surveys were conducted at industrial plants, State institutions and among other special groups. This brings the total number of persons X-rayed since August, 1942, to 153,537. In the past fiscal year, 38,786 persons were X-rayed.

Attached is a summary of X-ray surveys conducted since August, 1942. We submit herewith not only the summary of the reading of the screening X-ray films, but a summary of the follow-up work as well. This latter work, as applies to the industrial groups, was conducted by the Bureau of Local Health Administration and is incorporated here merely for completeness. The follow-up of the institutional groups was carried on through co-operation with the physicians at the various institutions.

SUMMARY OF X-RAY SURVEYS

A. Number of surveys completed	83
1. Industrial surveys	65
2. Other groups	3
3. Institutional groups	15
B. Number of persons x-rayed	153,537
1. Persons on whom one or more readable x-ray plates were obtained	151,023
2. Persons on whom one or more x-ray plates were declared not readable	2,514

C. Surveys by counties—19 counties out of 21 represented; 1 survey in New York City:

County	Number Surveys	Number Persons x-rayed
Atlantic	3	2,714
Bergen	8	7,721
Burlington	5	3,546
Camden	10	42,056
Cumberland	5	5,423
Essex	9	25,114
Gloucester	2	2,232
Hudson	4	4,400
Hunterdon	1	1,156
Mercer	1	1,586
Middlesex	16	18,177
Monmouth	3	16,975
Morris	1	958
Ocean	1	507
Passaic	2	6,733
Salem	2	2,674
Somerset	4	5,357
Union	3	4,490
Warren	1	756
New York City	1	962
	83	153,547

D. Findings:

1. Findings of little significance	45,320
2. Significant findings	10,348
a. Abnormal cardio-vascular findings	7,407
b. Probably reinfection tuberculosis	1,821
1. Minimal tuberculosis	1,275
a. Probably active	341
b. Activity questionable	520
c. Probably arrested	414
2. Moderately advanced tuberculosis	418
a. Probably active	266
b. Activity questionable	111
c. Probably arrested	41
3. Far advanced (active)	72
4. Other reinfection tuberculosis	56
a. Pneumothoracies	32
b. Thoracoplasties	14
c. Suspicious miliary tuberculosis	10
c. Findings suspected of being indicative of a tuberculosis lesion	596
d. Findings suspected of being indicative of chest pathology other than tuberculosis and cardio-vascular	519

Significant tuberculosis findings classified by extent and activity:

b. Probably reinfection tuberculosis	1,821	
<i>As to Extent:</i>		
1. Minimal tuberculosis	1,275	
2. Moderately advanced tuberculosis	418	
3. Far advanced (active)	72	
4. Other reinfection tuberculosis (thoracoplasties, pneumothoracies, etc.)	56	
<i>As to Activity:</i>		
1. Probably active	689	
2. Activity questionable	661	
3. Probably arrested	471	
E. X-ray film used (plates taken)	164,811	
1. 35 mm. plates taken	86,958	
2. 4x5 plates taken	73,039	
3. 14x17 plates taken	3,367	
4. 70 mm. plates taken	1,447	
F. Number of persons referred for follow-up	3,001	
1. Summary of the follow-up of the New Jersey State Health Department's Tuberculosis Case-Finding Program.		
A. Total persons on whom one or more readable x-ray plates were obtained	151,023	
1. Total significant findings	1,815	1.20%
a. Active pulmonary tuberculosis	383	.25%
b. Arrested pulmonary tuberculosis	1,047	.69%
c. Pathology other than tuberculosis	385	.25%
The above includes 65 industrial surveys, 14 institutional surveys, and three surveys of other special groups.		
2. Summary of the follow-up of the 65 industrial surveys mentioned above in 1.		
A. Total number of persons on whom one or more readable x-ray plates were obtained in industry	131,252	
1. Total significant findings	1,299	.97%
a. Active pulmonary tuberculosis	175	.13%
b. Arrested pulmonary tuberculosis	839	.63%
c. Pathology other than tuberculosis	285	.21%

In addition to the above as applied to the industrial group, the following figures are of interest. All persons listed below are part of total number of persons on whom one or more readable plates were obtained.

d. Number of persons residing out of the State of New Jersey, who were referred to their proper health authority, but on whom a follow-up report was never obtained	34	
e. Number of persons giving residency in New Jersey, but who were never located for the purpose of follow-up	66	
f. Number of persons who were found in the follow-up program to have died, to have entered military service, or were found to be absolutely uncooperative, or on whom a diagnosis after considerable time could never be established	267	
g. Number of persons still under investigation; diagnosis will in most instances subsequently be forwarded to New Jersey State Department of Health	266	
3. Summary of the follow-up of the 17 other surveys listed above—14 institutional surveys, plus three surveys of special groups. Institutional group includes two penal institutions, six high schools, eight institutions for mental or nervous diseases.		
A. Total number of persons on whom one or more readable x-ray plates were obtained in institutional groups	19,771	
1. Total significant findings	516	2.60%
a. Active pulmonary tuberculosis	208	1.05%
b. Arrested pulmonary tuberculosis	208	1.05%
c. Pathology other than tuberculosis	100	.50%

In addition, there are still 231 persons under investigation. These 231 cases still under investigation are thought to have definite pathology. However, we have not gone back to the institutions to obtain their final conclusions.

NOTE—In all the above, cardiacs are not included in "Pathology Other Than Tuberculosis."

Report of Division of Venereal Disease Control

July 1, 1945 - June 30, 1946

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

Surgeon Glenn S. Usher, of the U. S. P. H. S., who was assigned to this State June 1, 1942, when Dr. Daniel Bergsma entered military service, served as Chief of the Division of Venereal Disease Control until February 13, 1946. Dr. T. W. MacParland, who had served as Medical Assistant in the Division was appointed Acting Chief and served during the remainder of the year, but was no longer affiliated with the Division when this report was prepared.

The past year may well be the most significant in the history of the Division of Venereal Disease Control because of the general application of penicillin therapy in both syphilis and gonorrhoea. All resources of the Division have been focused on finding infectious cases and making penicillin treatment available to them.

PENICILLIN TREATMENT FOR SYPHILIS

During the year, 1,097 cases of early syphilis among civilians were hospitalized in 36 different hospitals in the State, and treated with penicillin under the State plan. Many others, doubtless, received similar treatment as private patients. The State plan called for hospitalization for eight days, with injections of 40,000 units of penicillin every three hours, day and night. In June, hospitals and physicians were notified that the period of hospitalization would be reduced, effective July 1, 1946, from eight days to five or six days, with injections given at two-hour intervals instead of three, as further research has demonstrated this to be the optimum time-dosage relationship.

An additional 689 persons (about one-third were New Jersey residents) received penicillin treatment for syphilis at the special rapid treatment center established at Medical Center, Jersey City, for men being separated from military service.

SEPARATEE PROGRAM

Under this program only persons found to have lesions of primary or secondary syphilis were held at the Separation Center for treatment. Because of the large number of persons processed for military discharge in a short period of time, it was impractical to hold at the Separation Center those persons found to have a positive blood test at the time of discharge but without clinical evidence of syphilis. These were interviewed and urged to report before their return home, to the Rapid Treatment Center established by the U. S. Public Health Service in Medical Center, Jersey City, for diagnosis, and for penicillin treatment if found to be infected. If the individual did not accept this service, he was followed up through the State and local health departments to make sure that further examination was secured with a private physician or local clinic.

In addition to the 689 separatees treated at Medical Center, 746 others who reported there were found to be negative upon further examination and discharged as free from infection. An unusually high percentage of false positive reports was found also among those who chose to be examined by their physician or at local clinics. A sensitive Kahn test at the military laboratory and the biologic factor of conditions caused by malaria and inoculations may account for the unusual number of false positives reported from the Fort Dix Laboratory.

In all, about 6,000 "separatee" syphilis records have been referred to this office from the military authorities; those separatees who went to Medical Center for penicillin treatment were notified of the importance of tests for cure, the remainder were followed up until further examination had proved them to be free from infection or until some arrangement for treatment had been made.

PENICILLIN TREATMENT OF GONORRHEA

At the beginning of this fiscal year, the plan of hospitalizing certain cases of gonorrhea for penicillin treatment, chiefly sulfa-resistant cases, was withdrawn. By this time, ambulatory treatment had proved feasible and an adequate supply of aqueous penicillin was available to warrant recommending its use on all cases of gonorrhea as follows: three injections, given at intervals of two hours, of a total dosage of 150,000-200,000 units. Thus, treatment could be completed in four hours.

A revolving supply of penicillin was set up in clinics for immediate use when a patient presented himself. By May 1, 1946, further extension of the program for treating cases of gonorrhea with penicillin was adopted; i. e., enough penicillin in the recommended dosage is sent routinely to every practicing physician who reports a case of gonorrhea. So effective and non-

toxic is the drug, that physicians and clinics have been urged to treat suspicious cases without waiting for laboratory confirmation, in this way, curing many persons before there is a possibility of transmitting infections to others.

The Division has watched with interest the reports of the development of penicillin in a base of peanut oil and beeswax (POB), and has used it on an experimental basis for the treatment of gonorrhea in a single injection. Large scale use of this preparation is being planned for the treatment of gonorrhea in clinics for migrant workers, to be conducted in the Summer and Fall of 1946. It is anticipated that this single-treatment method will be adopted generally for gonorrhea, and perhaps also for syphilis using one injection daily for eight or nine days.

SUMMARY OF PENICILLIN TREATMENT PROGRAM

The figures in the following table represent persons who, through the agency of this Division, were cured in a few hours or days, except for a small percentage of treatment failures, and were immediately eliminated as a source of infection to others. In addition, through a sifting and distribution of material from the mass of scientific articles about penicillin and the reports of studies of the U. S. Public Health Service, practicing physicians have been kept informed of the rapidly changing picture and their private patients have benefitted.

TABLE NO. 1. PENICILLIN TREATMENT PROGRAM, JULY 1, 1945-JUNE 30, 1946

No. of cases of early syphilis treated:	
Civilians	1,097
Separatees	689
No. of cases of gonorrhea treated	3,346
Total	5,132

This penicillin treatment program which has been described could not have been carried out except through the use of funds allotted by the U. S. Public Health Service, as the appropriation made by the Legislature of New Jersey has not been increased, varying for the past 25 years from \$25,000 to \$29,000.

The co-operation of established hospitals has made it unnecessary to develop rapid treatment centers as isolated units, as has been done by the U. S. Public Health Service in many sections in the South. The 36 hospitals which have accepted syphilis patients under the State plan are:

Belleville—Essex County Isolation Hospital.
Bound Brook—Bound Brook Hospital.
Bridgeton—Seabrook Hospital.

Camden—West Jersey Homeopathic Hospital.
 Elizabeth—Elizabeth General Hospital, Alexian Brothers Hospital.
 Englewood—Englewood Hospital.
 Hackensack—Hackensack Hospital.
 Jersey City—Christ Hospital, Medical Center.
 Long Branch—Monmouth Memorial Hospital, Dr. E. C. Hazard Hospital.
 Morristown—Morristown Memorial Hospital.
 Mount Holly—Burlington County Hospital.
 Neptune—Fitkin Memorial Hospital.
 Newark—Beth Israel Hospital, Community Hospital, Columbus Hospital.
 New Brunswick—Middlesex General Hospital.
 Newton—Newton Memorial Hospital.
 Orange—Orange Memorial Hospital.
 Passaic—Passaic General Hospital, Isolation Hospital, Beth Israel Hospital, St. Mary's Hospital.
 Paterson—Paterson City Hospital.
 Pinewald—Royal Pines Hospital.
 Plainfield—Muhlenberg Hospital.
 Secaucus—Contagious Disease Hospital.
 Somerville—Somerset Hospital.
 Somers Point—Shore Memorial Hospital.
 Summit—Overlook Hospital.
 Trenton—McKinley Hospital, Mercer Hospital, St. Francis Hospital.
 Weehawken—North Hudson Hospital.

CONTACT TRACING

Through the war years the venereal disease program has been geared progressively to selectees, inductees, trainees, assigned personnel, and separatees, but from the beginning co-operation of personnel responsible for the health of the military forces with civilian health authorities has been continuous. Reports of contact information secured from infected service personnel have been referred to civilian health authorities for investigation. The record number of such contacts was last year, when 2,531 civilian contacts of military personnel were reported in this State. This year the number is slightly lower, 2,237. As the number of military personnel of the State has been a variable quantity, the decrease in number of contacts cannot be assumed to suggest decrease in the prevalence of venereal disease among civilians.

Of the 2,237 contacts of military personnel, 1,765 were referred to representatives of the State Department of Health or local health departments for investigation. Information on the remainder of reports was too vague to be useful. Referral was made to the Alcoholic Beverage Commission of 453 taverns which were named on 775 contact reports as "Place of Meeting."

A representative of the Division assisted police officials by interviewing 65 military contacts suspected of being prostitutes. These interviews were recorded by a stenographer and used as a basis for recommending disposition. This assistance in specific cases and conferences as to the disposition of other cases, gave opportunity for interpretation of the venereal disease laws with police officials.

TABLE NO. 2. MILITARY CONTACTS BY COUNTY AND LARGE CITY
 JULY 1, 1945-JUNE 30, 1946

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

Atlantic County (Atlantic City 157)	162
Bergen County	30
Burlington County	63
Camden County (Camden 212)	260
Cape May County	66
Cumberland County	65
Essex County (Newark 550)	638
Gloucester County	20
Hudson County (Jersey City 106)	193
Hunterdon County	5
Mercer County (Trenton 172)	178
Middlesex County (New Brunswick 66)	93
Monmouth County (Asbury Park and Neptune 121)	211
Morris County	39
Ocean County	17
Passaic County (Paterson 50)	69
Salem County	21
Somerset County	9
Sussex County	7
Union County	86
Warren County	5
Total	2,237

PUBLIC HEALTH NURSES IN CASE-FINDING PROGRAM

In supplying penicillin to hospitals, for the treatment of cases of syphilis, this Division has reserved the privilege of interviewing for contact information every patient so treated, as the recently infected person is the key person in tracing other cases. Fortunately, the Division had developed over a period of several years a staff of public health nurses trained and experienced in contact tracing, and had served in an advisory capacity to public health nurses of other state bureaus and local health departments. This experienced personnel has been invaluable at this time, when hope for

quick cure, the medical program for the armed forces, and other factors have brought to light more early cases. Through their interviews and from other civilian sources 1,688 contacts have been reported to the State office, of which 964 were residents of New Jersey and 724 were referred to other states for investigation.

Public health nurses of this Division have assisted local health departments this year in the venereal disease case-finding program in the following areas: North Hudson County and Hoboken, Eastern Bergen County, Western Bergen County, Cumberland County, Salem County, Camden and Gloucester Counties, Morris County, Plainfield and vicinity, Camden, Newark, Monmouth County, Paterson and vicinity, Trenton and vicinity, Atlantic City.

They have been key persons in developing mass blood testing programs in their areas, in promoting the penicillin treatment program, in extending the use of cultures for the diagnosis of gonorrhea, and by many other activities translating the State program to physicians, health officials, social agencies and the public.

To give these nurses of our staff every assistance possible in the local communities in which they work, the plan was tried experimentally this year of sending to them copies of the report cards received from private physicians of patients living in the area in which they work. The nurse has been carefully instructed that these are confidential records for her office, which is a branch office of the State Department of Health, and are sent to her so that she may have as complete a roster as possible of the infected persons in the area. Two important uses of these records were contemplated and have proved helpful in the limited experience to date: (1) The nurse has an opportunity to contact the reporting physician in regard to the contacts of the patient, offering her services to interview the patient or to follow-up contact information which the physician may have received from the patient; (2) any information reported to the nurse in the area about persons suspected of being infected with a venereal disease is checked against the file of reported cases and, if previously reported, the nurse contacts the physician before making an investigation.

INDUCTION PROGRAM

The examination of men and women for military service, which has been such an effective venereal disease case-finding measure since the Selective Service Act was adopted, is no longer of major significance in our public health program. At the close of this program, it seems appropriate to include a tabulation of the number of cases found by this methodical process of examining a large segment of the population. Rates per thousand are not available as the number of persons inducted was military information. However, rates were released of the results of serologic blood tests for

syphilis, based on the first million examinations made in the United States for Selective Service (November 1, 1940-April 15, 1941). This rate for New Jersey was 22 per 1000 persons tested.

TABLE NO. 3. SUMMARY OF BLOOD TEST PROGRAM FOR SELECTIVE SERVICE

	Positive	Doubtful	Negative	Total
At local Selective Service Boards				
September, 1940-January 7, 1942	1927	813	135,297	138,037
At local Boards and Pre-induction Stations				
January 8, 1942-December, 1942	5002	2921	291,934	299,857
Continued, January-December, 1943	2910	821	258,939	262,670
Total	9839	4555	686,170	700,564

TABLE NO. 4. REPORTS FROM INDUCTION STATIONS 1943-1946

	Syphilis		Gonorrhea			Tot. G.C. Syphilis	
	Total	Accepted	Rej.	Total	Accepted		Rej.
January-December, 1943	4,975	1,907	3,068	778	391	387	5,753
January-December, 1944	2,345	1,142	1,203	319	176	143	2,664
January-December, 1945	890	589	301	226	154	72	1,116
January-June, 1946 (half year)	43	35	8	24	15	9	67
Total	8,253	3,673	4,580	1,347	736	611	9,600

TREATMENT

The use of penicillin for the treatment of both gonorrhea and syphilis, as discussed elsewhere in this report, suggests that the role of the venereal disease clinic will be greatly modified in the future. In past reports the trend from clinic to private physician care has been noted. This trend, due in part to favorable economic conditions, probably will be accelerated as POB (penicillin in oil and beeswax) becomes readily available. If infected persons are seeking treatment earlier than heretofore, as suggested by the comparison of reported cases for 1944 and 1945, and by the observations of physicians, rapid therapy can be most effective. However, greater co-operativeness on the part of private physicians, in referring patients for contact interviews, will be necessary, if maximum benefits to public health through the new methods of treatment are to accrue. Unless prompt contact tracing is accomplished, many reinfections will occur.

TABLE NO. 5. CIVILIAN CASES OF SYPHILIS REPORTED

	1944	1945	Percent Increase
Total syphilis	8,660	8,891	2.67
Primary and secondary	1,072	1,309	22.11
Early syphilis (less than 4 years)	2,241	2,704	20.66
Other syphilis	5,347	4,878	

As lymphogranuloma venereum and granuloma inguinale were made reportable diseases last year, a manual on the "minor" venereal diseases has been prepared to assist physicians in the diagnosis and treatment of these diseases. Lygranum is supplied to physicians upon request to aid in the diagnosis of lymphogranuloma venereum, and also Ducrey vaccine for the diagnosis of chancroid. Fuadin and tarter emetic were supplied for the treatment of granuloma inguinale.

DIAGNOSTIC PROCEDURES

Quantitative serologic tests have been offered to physicians for penicillin-treated cases of syphilis. The use of quantitative tests in measuring the response to treatment is essential with rapid treatment methods. That quantitative tests would be useful in measuring results of all types of treatment is not questioned, but funds and personnel have not been available to offer the service routinely.

Many laboratories have co-operated by using the standard slip (118-Bact.) for reporting results of serologic tests for syphilis. This slip was prepared last year and supplied to laboratories without cost. Copies of the positive and doubtful results are sent to the Division for follow-up.

For the purpose of increasing uniformity in the tests for syphilis Mazzini antigen has been supplied by this Division to all laboratories in the state requesting it. As most serologic laboratories in this State use this antigen of identical sensitivity, there is less chance of variation in the different laboratories. This antigen also gives each laboratory a check on the sensitivity of any other antigen used in that laboratory. The State Laboratory has now adopted the use of this antigen supplied by this Division. During the past year, 49 different laboratories used a total of 4.2 liters of this antigen.

TABLE NO. 6. TOTAL NO. OF BLOOD TESTS FOR SYPHILIS OF ALL LABORATORIES

	Total	Positive Results	Percent Positive
1939	507,801	47,081	9.28
1940	534,729	40,730	7.62
1941*	729,888	47,082	6.45
1942*	1,012,982	57,189	5.65
1943*	930,830	45,532	4.89
1944	563,530	38,740	6.87
1945	546,185	34,126	6.25
1946, January-June	355,835	17,977	5.05

*Includes tests for Selective Service.

The Division continued to operate gonococcus culture laboratories at Newark and Trenton. Both direct and mail service are being used increasingly.

TABLE NO. 7. NUMBER OF GONOCOCCUS CULTURES SPECIMENS RECEIVED

	Mailed Specimens	Delivered Specimens	Total
January-June, 1943	1,463	2,108	3,571
July-December, 1943	2,694	2,449	5,143
January-June, 1944	4,196	3,003	7,199
July-December, 1944	6,585	3,068	9,653
January-June, 1945	7,435	3,929	11,364
July-December, 1945	9,182	4,006	13,188
January-June, 1946	10,474	4,574	15,048
	42,029	23,137	65,166

PREMARITAL AND PRENATAL LAWS

The laws requiring blood tests of pregnant women and persons who apply for marriage license have been found a useful case-finding device, as shown by the tables which follow. Effort is made to insure adequate treatment for all infected persons discovered through the operation of these laws.

TABLE NO. 8. PREMARITAL BLOOD TESTS REPORTED BY APPROVED LABS IN N. J.

	Total Tests	Positives	Percent Positive	No. of Persons Married
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 (½ year, January to June)	63,543	922	1.61	61,398

A spot check of birth certificates was made to determine how completely the prenatal law is observed. Of the births reported in February, 1946 (5667), 92% of the mothers were blood tested. Unfortunately, only 45% had been tested before the fifth month of pregnancy. Continued effort must be carried on to secure compliance of the law early in pregnancy, when adequate treatment insures protection of the baby.

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

TABLE No. 9. PRENATAL BLOOD TESTS REPORTED BY APPROVED LABS IN N. J.

	Total Tests	Positives	Percent Positive
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, (January-June)	48,600	654	1.35

CLINICS FOR MIGRANT FARM WORKERS

As for several years past, clinics for migrant farm workers were operated during July, August and September in Cranbury, Freehold and Hightstown. This year, the program was strengthened by the law enacted last year (26.4-49.5 and 49.6) making it mandatory for this high prevalence group to have examinations. The same method was used as in the past, of employing local physicians, nurses and clerks, on an hourly basis. Primary and secondary cases of syphilis were hospitalized for eight days and treated with penicillin. Other classifications of syphilis were given standard treatment weekly of arsenicals and bismuth.

For gonorrhea, use was made experimentally of penicillin by the oral route.* This experimental project was carried on in co-operation with Squibbs laboratories. In view of the difficulty of holding persons in clinics of this type for four hours to complete injections of aqueous penicillin, the use of tablets was considered preferable. Tests for cure indicated that the results were comparable to those obtained through the use of aqueous penicillin by injection. Preparatory alkalinization with creamalin tablets was considered important in this type of therapy. The schedule was as follows: two creamalin tablets; half hour later, two more creamalin tablets and ten tablets of penicillin (200,000 units). The patient was then given two creamalin tablets which he was instructed to take an hour later. Results seemed better when this medication was given on an empty stomach.

*The oral administration of penicillin was never recommended for general use, and was not repeated in the clinics for migrant workers in the summer of 1946, as P.O.B. was available by that time.

TABLE No. 10. CLINICS FOR MIGRANT FARM WORKERS, HIGHTSTOWN, FREEHOLD, AND CRANBURY, JULY-SEPTEMBER, 1945

Number persons examined for syphilis	1,816*
Positive results	569
Doubtful results	164
Primary and secondary cases (hospitalized and treated w/penicillin)	23
Early latent cases	159
Late latent cases	257
Other syphilis	44
Cases of gonorrhoea	180
Cases of chancroid	14

INTERNATIONAL MIGRANTS

Screening of international migrants for venereal disease before entry into this country was found to be incomplete. Accordingly, this Division co-operated with the Atlantic Seaboard Agricultural Workers Association in carrying on examinations of these workers. This Division also supplied medication, laboratory services and some supervisory assistance for the clinics operated by A. S. A. W. A. in the southern part of the State. Joint conferences of the nursing staffs were held to co-ordinate contact tracing activities. Educational pamphlets were supplied and 14 talks and film showings, emphasizing prophylaxis, were given to groups of migrant workers.

INDUSTRIAL COMPLIANCE WITH MIGRANT LABOR LAW

Seventy-six industries employed migrant laborers, as "migrant labor" is defined in the laws of 1945 (R. S. 26.4-49.5), according to lists received from the War Food Administration and from the agricultural extension service of Rutgers University. Copies of the law were sent to all of these industries, followed by personal visits to discuss the application of the law. In 16 of these industries mass examinations for syphilis and gonorrhea were done as demonstrations. Approximately 3,500 persons were included in these demonstrations: 12% of the white persons examined and 35% of the Negroes were positive for syphilis. Figures are not available as to the number of cases of gonorrhea found.

*This number undoubtedly would have been larger, but for the war-time restrictions on the use of automobiles.

Report of the Bureau of Health Education

For the Year Ending June 30, 1946

By RALPH T. FISHER, Chief

The Bureau of Health Education was created in the State Department of Health on July 1, 1945, culminating a long-term plan which had been interrupted in 1942 because of the war-time emergency. Health education is a dominant factor in all public health and there had been a long felt need for a single Bureau within the Department which would be charged with the responsibility of the over-all health education program.

The Bureau was established with the following initial six-point program, employing community health organization methods for the promotion of health education in the State:

1. Working with the other units of the Department of Health.
2. Working with other departments of the State.
3. Working with non-official health agencies.
4. Working with citizen groups.
5. Working with local health departments.
6. Promoting in-service training programs.

Expansion of the health education activities of the Department had been urged in every health survey made of New Jersey over a period of years. It was recommended in the Princeton Survey and in the study made of the Department in 1942 by Dr. R. C. Williams of the U. S. Public Health Service for Governor Charles Edison. In his suggestion plan of reorganization for the State Department of Health, Dr. Williams recommended:

"Bureau of Health Education: This important function should be enlarged and expanded. Health education is an integral part of all public health activities."

The State Board of Health concurred in this recommendation as did the N. J. Health Officers' Association which stated:

"Health Education Bureau: We concur in the opinion that health education as an activity of the State Department of Health should be enlarged and expanded."

While the Bureau of Health Education is newly created, the Department has not been without a health education program. The program has been developed by the individual Bureaus of the Department, with each Bureau endeavoring to meet the health education needs in its own particular field with its own resources. Education activities have been conducted over a period of years in environmental sanitation, maternal and child health, communicable disease control including venereal disease and tuberculosis, and in food and drug control. In more recent years educational programs have been instituted in dental health, industrial health and a special educational program of Negro groups in the State.

Health education activities began with the first State Board of Health, established in 1877. Reports were issued and popular pamphlets distributed. As early as 1880 the Board displayed exhibits at State and County Fairs and in 1893 had an exhibit at the Columbian Exposition in Chicago. In 1910 the Legislature appropriated \$10,000 for an intensified tuberculosis education campaign which was later broadened and in 1915 resulted in the creation of a Bureau of Education and Publicity in the newly organized Department of Health. It was at this time that *PUBLIC HEALTH NEWS*, official publication of the Department, was first published.

The early Bureau of Education and Publicity was a victim of World War I personnel shortages and it ceased to exist at the end of 1917. It was at this time that the development of educational programs by individual Bureaus began, a policy which was followed in subsequent years. In 1927 a Bureau of Public Health Education was established, but it was limited to two services—publication of *PUBLIC HEALTH NEWS* and issuance of news releases. This Bureau fell a victim of depression economies in 1936.

In 1939 "A Plan for a Bureau of Public Health Education for the New Jersey State Department of Health," prepared at the School of Public Health, University of Michigan, by Ralph T. Fisher was submitted to the Department for consideration and in 1941 a Health Education Service under his direction was created in the Bureau of Administration. Plans were made for expansion of the Health Education Service, but were abandoned when war-time needs became urgent in 1942. The creation of the Bureau of Health Education on July 1, 1945 thus marked a new start in a familiar field.

Organization of the Bureau and planning the work programs were the major activities of the first year. The six-point program was begun with emphasis on organization of work within the Department and furtherance of joint health education activities with other agencies. High point of the State-wide community health education program was the Public Health Institute on Local Health Administration which was conducted by the Bureau of Health Education in co-operation with the New Jersey State Federation

of Women's Clubs and other citizen groups in October, 1945. Over 100 delegates from State organizations attended the three-day Institute held at the New Jersey College for Women and it was the starting point for a number of local Public Health Institutes which were held during the following months. The proceedings were reported in *PUBLIC HEALTH NEWS*, Vol. 27, No. 12, December, 1945.

In December, 1945, the Bureau of Preventable Diseases was activated in the Department of Health and the Bureau of Health Education was made a Division of Health Education in the Bureau of Preventable Diseases. The personnel and program were unchanged.

By the close of the fiscal year June 30, 1946, the following central services had been organized and had started operation:

1. A workshop with a commercial artist for the production of exhibit displays, silk screen posters, illustrations for publications and other art work.
2. A dark-room with a photographer equipped to produce still-pictures for illustrations, displays, newspaper use, slides and other uses.
3. Construction of small exhibit units, scheduling and erection of exhibits. During the fiscal year, 26 exhibits were displayed at fairs, conventions and other group meetings.
4. A central warehouse for storage and distribution of printed materials for the Department.
5. A multilith print shop for production of printed materials with one multilith operator.
6. Addressograph mailing lists of several types were made available, including separate lists for physicians, health officers, industries and similar groups.
7. A news release and radio program service with a full-time editorial writer.
8. *Public Health News*, official bi-monthly publication of the Department, was issued.
9. A health education reference file and service for the Department was established which will be developed into a central library.
10. A film library is maintained, bookings being made by the Museum Division of the State Department of Education. There were 2,162 film showings seen by over 135,000 persons during the fiscal year.

The central organization has been designed to provide services for the Department of Health and later for a staff of community health educators who will work from the field offices of the Department. Health education cannot be accomplished from a central office in the State Capitol—it is a job which can be done only in the field by trained workers who know their communities and who are on the spot to do the job. The present organization is a forerunner—a central agency which will in time provide materials, services and over-all planning and administration for a staff of trained community health educators throughout the State.

Report of the Bureau of Vital Statistics

Statistics for the Calendar Year 1945

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 11.3 in 1945, and in the rate from respiratory tuberculosis from 251.0 to 39.0 per 100,000 population.

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

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

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

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

Certified copies of birth, marriage and death records were issued to individuals and interested organizations and agencies. During the fiscal year 1945-6, 40,908 searches of the records were made and copies of certificates found issued for which \$23,518.71 was received in fees. A total of 18,154 of the searches and certified copies were for purposes exempt from charge by law. The revenue of the Bureau showed a decrease of approximately \$3,000 from the amount collected during the preceding year. A 28% decrease occurred in the number of certificates issued without charge, which records are used mainly for obtaining dependency allotments and for claims against the government due to service with the armed forces.

During the year, the Bureau received, examined, classified, tabulated, indexed and permanently filed approximately 175,000 birth, marriage and death certificates, a minor part of which records were for unreported births which occurred during previous years. The annual growth of the records requires approximately 200 cubic feet of storage space.

More than 75,000 premarital certificate forms were received and examined, a duty placed upon the Bureau at the time of adoption of the law requiring an examination for syphilis prior to the issuance of a marriage license.

Nine hundred and fifty-four 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's field representative made 87 calls on local registrars and 36 calls on district health officers, county clerks, hospital authorities, judges and clergymen. He also conducted two county meetings of registrars, one of which was a tri-county meeting in the southern part of the State.

The additional clerical assistance requested to comply with Chapter 202, P. L. 1945, which requires a monthly report of the names of deceased veterans with the dates and places of burial, cremation or removal of such deceased veterans, and the wars in which they served, to the county superintendents of soldiers' burials, has not been provided. The work made mandatory by law has been done at the expense of a delay in the preparation of cross-indexes vital to the searching process. A total of 1,771 veterans were buried in New Jersey cemeteries during the year.

The Bureau is greatly handicapped by a lack of trained personnel and adequate working quarters. The electrical tabulating machinery is operated in a small room which also houses the voluminous files of the Bureau of Engineering and two file clerks. Exacting statistical work cannot be done efficiently where other persons are present, and personnel other than machine operators should not be subjected to the noise of the electrically operated equipment.

GENERAL SUMMARY

	1920	1930	1940	1945
Births registered, tabulated and indexed	76,431	68,282	59,328	76,995
Stillbirths registered, tabulated and indexed ...	3,221	2,647	1,543	1,827
Marriages registered, tabulated and indexed	31,327	28,499	41,059	39,711
Deaths registered, tabulated and indexed	40,820	43,190	45,206	47,633
Total records registered, tabulated and permanently filed	151,799	142,618	147,136	166,166
Searches made and/or certified copies issued for which fees were received	4,664	10,523	38,431	23,518
Certified copies issued and searches made in pension and other cases for which no fees were received	4,232	6,938	11,300	18,154
Fees received for searches and certified copies ..	\$4,051	\$9,601	\$31,614	\$23,518.71

CHARTS AND TABLES—1945

- Table 1. Births, marriages, deaths and rates, 1879-1945.
- 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: 1945.
- 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, 1904-1945.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1945.
- 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, 1936-1945.
- Table 10. Typhoid fever rates by counties, 1936-1945.
- 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 periods 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 of 5,000 or more inhabitants in 1930.
- Table 22. Deaths by causes, sex, color and age periods in the counties and cities having 50,000 or more inhabitants in 1940. (County figures include cities which follow):

<i>Atlantic County</i>	<i>Essex County</i>	<i>Mercer County</i>	<i>Salem County</i>
Atlantic City	East Orange	Trenton	
	Irvington		<i>Somerset County</i>
<i>Bergen County</i>	Newark	<i>Middlesex County</i>	
	<i>Gloucester County</i>		<i>Sussex County</i>
<i>Burlington County</i>		<i>Monmouth County</i>	
	<i>Hudson County</i>		<i>Union County</i>
<i>Camden County</i>	Bayonne	<i>Morris County</i>	Elizabeth
Camden City	Hoboken	<i>Ocean County</i>	
	Jersey City		<i>Warren County</i>
<i>Cape May County</i>	Union City	<i>Passaic County</i>	
		Passaic City	
<i>Cumberland County</i>	<i>Hunterdon County</i>	Paterson	

Population.—In computing rates for the State, the U. S. Census Bureau estimate of 4,200,941 as of July 1, 1945, was used. Armed forces stationed in the State were included; residents of the State serving with the armed forces overseas excluded. Additional information regarding the method used in computing the estimate may be obtained by referring to Population-Special Reports, Series P-46, No. 3, issued by the Bureau of the Census on February 12, 1946.

Since estimates of the population of the counties as of July 1, 1945 were not available, county death rates were calculated by using the population estimates for July 1, 1943; taken from Census Release No. 3, Series P-44. These estimates, for civilian population only, were based on registration for war ration book number four.

Estimates of the population of municipalities have not been published. The final census figures as of April 1, 1940 have been used in computing rates.

Births.—The number of births for 1945 was 76,995 which was equivalent to a rate of 18.3 per 1,000 population. Total births reported showed an increase of 1,343 over the number for 1944. The 1944 total, 75,652, was 6,704 less than the number for the previous year. Births, which decreased from 76,530 in 1924 to 54,841 in 1934, have shown a rising trend since that time.

The number of illegitimate births reported for 1945 was 2,159 of which 969 were babies born to colored mothers. The figures for 1944 were 1,959 and 843 respectively.

Marriages.—The number of marriages reported for 1945 was 39,711, an increase of 3,627 over the number for the previous year. The marriage rate was 9.5 compared with 8.7 for 1944 and 9.7 for 1943.

Deaths.—The number of deaths of residents of the State for 1945 was 47,633, equivalent to a rate of 11.3 per 1,000 population. In 1944 the rate was 11.4. For the past decade the rate ranged from 10.6 in 1938 and 1939 to 11.8 in 1943.

Stillbirths.—There were 1,827 stillbirths reported during 1945. The number for the previous year was 1,744. The 1945 rate was 24 per 1,000 live births. The rate for the colored population was 40.

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
1870	1,110,480	22,116	26.8	7,006	6.3	20,440	18.4
1880	1,132,731	23,680	20.9	7,963	7.0	18,967	16.7
1891	1,165,112	22,494	20.0	6,108	6.0	20,812	17.8
1893	1,196,498	23,108	19.3	6,837	7.0	23,969	21.0
1894	1,227,974	24,480	19.8	9,106	7.4	23,310	18.9
1895	1,259,328	25,238	20.0	8,968	6.9	21,716	17.2
1896	1,290,688	24,077	18.6	8,989	6.9	22,807	18.4
1897	1,322,020	25,497	19.2	12,351	9.3	22,734	17.1
1898	1,353,402	27,840	20.2	15,419	11.3	24,831	17.9
1899	1,384,784	28,074	20.2	16,025	11.5	27,178	19.6
1899	1,418,196	29,090	20.5	16,728	11.7	28,548	20.1
1901	1,448,589	30,108	20.7	15,564	10.7	28,559	19.7
1902	1,482,462	28,882	19.5	15,963	10.7	28,840	19.4
1903	1,516,336	29,277	19.3	16,982	11.2	30,496	20.1
1904	1,550,209	32,228	20.8	17,178	10.9	30,944	19.9
1905	1,584,082	33,622	21.2	16,548	10.4	30,944	19.5
1906	1,617,955	31,742	19.6	15,978	9.8	30,854	19.0
1907	1,711,828	31,837	18.6	16,370	9.5	31,789	18.6
1908	1,755,705	31,586	17.9	16,171	9.2	31,820	18.1
1909	1,799,578	32,515	18.0	18,212	10.1	32,822	18.2
1910	1,843,452	32,419	17.6	18,286	9.9	32,905	17.9
1911	1,887,325	32,870	17.4	18,326	9.7	32,905	17.4
1912	1,931,198	34,812	17.9	14,611	7.5	31,474	16.3
1913	1,975,071	35,116	17.8	15,100	7.6	31,789	16.1
1914	2,018,944	37,242	18.4	16,520	8.2	31,820	15.7
1915	2,062,817	38,680	18.7	17,012	8.2	32,283	15.6
1916	2,106,690	42,677	20.2	21,580	10.2	33,864	16.1
1917	2,150,563	44,661	20.8	22,072	10.3	35,445	16.4
1918	2,194,436	47,406	21.6	22,564	10.3	37,026	16.9
1919	2,238,309	49,408	22.1	23,056	10.3	38,607	17.2
1920	2,282,182	51,410	22.5	23,548	10.3	40,188	17.6
1921	2,326,055	53,412	23.0	24,040	10.3	41,769	18.0
1922	2,369,928	55,414	23.4	24,532	10.3	43,350	18.3
1923	2,413,801	57,416	23.8	25,024	10.3	44,931	18.6
1924	2,457,674	59,418	24.2	25,516	10.3	46,512	18.9
1925	2,501,547	61,420	24.5	26,008	10.3	48,093	19.2
1926	2,545,420	63,422	24.9	26,500	10.3	49,674	19.5
1927	2,589,293	65,424	25.3	27,000	10.3	51,255	19.8
1928	2,633,166	67,426	25.6	27,500	10.3	52,836	20.1
1929	2,677,039	69,428	25.9	28,000	10.3	54,417	20.3
1930	2,720,912	71,430	26.2	28,500	10.3	55,998	20.6
1931	2,764,785	73,432	26.5	29,000	10.3	57,579	20.8
1932	2,808,658	75,434	26.8	29,500	10.3	59,160	21.1
1933	2,852,531	77,436	27.1	30,000	10.3	60,741	21.3
1934	2,896,404	79,438	27.4	30,500	10.3	62,322	21.5
1935	2,940,277	81,440	27.7	31,000	10.3	63,903	21.7
1936	2,984,150	83,442	28.0	31,500	10.3	65,484	21.9
1937	3,028,023	85,444	28.2	32,000	10.3	67,065	22.1
1938	3,071,896	87,446	28.5	32,500	10.3	68,646	22.3
1939	3,115,769	89,448	28.7	33,000	10.3	70,227	22.5
1940	3,159,642	91,450	29.0	33,500	10.3	71,808	22.7
1941	3,203,515	93,452	29.2	34,000	10.3	73,389	22.9
1942	3,247,388	95,454	29.4	34,500	10.3	74,970	23.1
1943	3,291,261	97,456	29.6	35,000	10.3	76,551	23.3
1944	3,335,134	99,458	29.8	35,500	10.3	78,132	23.5
1945	3,379,007	101,460	30.0	36,000	10.3	79,713	23.7

TABLE 1A.—BIRTHS, MARRIAGES AND DEATHS, 1945

(Births and deaths corrected for residence.)

Month	Births	Marriages	Deaths
January	6,420	2,540	4,334
February	6,017	2,438	3,950
March	6,586	2,332	4,264
April	6,164	3,129	3,873
May	6,264	2,695	3,966
June	6,541	4,435	3,893
July	6,859	3,357	3,490
August	6,701	3,276	3,579
September	6,701	4,030	3,439
October	6,506	3,561	3,971
November	6,172	3,995	3,906
December	6,064	3,923	4,968
Total	76,995	39,711	47,633

TABLE 1B.—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS, 1945

(Births and deaths corrected as to residence)

ATLANTIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Absecon City	57	80	32	2
Atlantic City	1064	1049	1006	49
Bridgeton City	9	2	8	1
Buena Vista Township	66	41	58	1
Corbin City	1	1	1	1
Eng Harbor City	88	69	88	8
Eng Harbor Township	38	22	31	1
Estelle Manor City	4	1	5	1
Folsom Borough	2	1	2	1
Galloway Township	38	17	37	4
Hamilton Township	50	17	47	1
Hammonctown Town	161	74	84	6
Linwood City	10	1	7	1
Longport Borough	44	9	42	1
Margate City	17	7	23	2
Mullica Township	83	4	84	2
Northfield City	7	7	19	5
Pileasantville City	4	16	16	1
Fort Republic City	24	16	24	1
Somers Point City	100	96	92	1
Ventnor City	11	1	8	1
Weymouth Township	11	1	11	1
Total	2089	1606	1786	81

BERGEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Atlantide Borough	47	7	28	1
Alvarez Borough	12	1	1	1
Bergenfield Borough	193	74	98	10
Bogota Borough	50	84	90	4
Carlstadt Borough	97	84	39	4
Cliffside Park Borough	282	100	147	11
Closter Borough	44	36	82	3
Cresskill Borough	50	18	20	1
Demarest Borough	13	8	13	1
Dumont Borough	185	56	86	8
East Paterson Borough	228	50	64	8
East Rutherford Borough	112	75	77	8
Edgewater Borough	96	156	44	2
Emerson Borough	26	7	25	1
Maplewood City	393	240	232	11
Englewood Cliffs Borough	11	9	9	1
Fair Lawn Borough	354	62	92	8
Fairview Borough	150	100	85	4
Fort Lee Borough	158	139	107	3
Franklin Lakes Borough	21	9	15	1
Garfield Borough	528	200	16	9
Hackensack Borough	80	84	64	8
Hackensack City	457	383	337	15
Harrington Park Borough	22	14	14	1
Hanbrouck Heights Borough	122	57	77	1
Haworth Borough	28	9	9	2
Hilldale Borough	25	20	45	1
Hoboken Borough	92	24	18	1
Leonia Borough	49	49	15	8
Little Ferry Borough	85	84	49	1
Lodi Borough	286	94	12	12
Lyndhurst Township	350	149	5	5
Mahwah Township	61	83	86	4
Maywood Borough	107	28	31	1
Milnad Park Borough	95	40	31	1
Montvale Borough	18	8	18	2
Moonachie Borough	19	8	16	1
New Milford Borough	59	24	35	1
North Arlington Borough	278	80	74	6
Northvale Borough	20	7	8	1
Norwood Borough	39	20	19	1
Oakland Borough	20	7	15	1
Old Tappan Borough	11	4	6	1
Oradell Borough	45	19	38	2
Palisades Interstate Park	45	19	38	2
Palisades Park Borough	185	79	90	5
Paramus Borough	11	11	22	1
Park Ridge Borough	49	31	24	2
Ramsey Borough	81	25	49	3
Ridgefield Borough	94	39	52	3
Ridgefield Park Village	156	75	139	6
Ridgewood Village	304	108	131	3
River Edge Borough	135	24	41	1
Riverside Township	28	4	18	2
Rochelle Park Township	118	25	33	2
Rockleigh Borough	1	1	1	1
Rutherford Borough	263	108	176	6
Saddle River Borough	18	7	14	1
Saddle River Township	27	7	28	6
South Hackensack Township	28	2	14	2
Tenack Township	427	122	227	10
Tenafly Borough	142	48	78	2
Teterboro Borough	1	1	1	1
Upper Saddle River Borough	18	9	14	1
Wildwick Borough	48	15	39	1
Washington Borough	168	69	75	6
Washington Township	3	7	6	1
Westwood Borough	82	64	52	2
Woodcliff Lake Borough	15	1	16	1
Wood Ridge Borough	84	46	50	4
Wyckoff Township	77	19	55	1
Total	7980	3510	4297	206

BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township	7	5	9	1
Beverly City	47	84	47	2
Bordentown City	106	64	61	6
Bordentown Township	25	1	1	0
Burlington City	235	110	155	11
Burlington Township	46	8	31	2
Chesterfield Township	18	4	18	1
Cinnaminson Township	34	13	29	1
Delanco Township	41	4	8	8
Delran Township	19	9	18	1
Eastampton Township	18	1	1	1
Edgewater Park Township	10	5	10	1
Evesham Township	45	9	17	1
Fieldsboro Borough	13	1	9	1
Klorance Township	108	47	63	2
Fort Dix	9	146	3	1
Hainesport Township	12	12	18	1
Lamberton Township	29	3	11	1
Mansfield Township	3	8	26	1
Maple Shade Township	95	61	51	3
Medford Township	50	21	33	3
Medford Lakes Borough	2	2	2	1
Moorestown Township	142	37	68	5
Mount Holly Township	150	63	119	9
Mount Laurel Township	35	35	11	1
New Hanover Township	10	2	4	1
North Hanover Township	9	8	9	1
Palmyra Borough	119	98	96	1
Pemberton Borough	21	18	24	2
Pemberton Township	20	26	20	1
Riverside Township	180	109	74	6
Riverton Borough	48	29	27	1
Shamong Township	12	2	6	1
Southampton Township	85	10	24	1
Springfield Township	22	1	1	1
Tubersacle Township	14	10	4	1
Washington Township	11	9	4	1
Westampton Township	14	1	3	1
Willingboro Township	14	1	8	1
Woodland Township	10	1	6	1
Wrightstown Borough	17	10	7	1
Total	1860	880	1164	65

CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough	185	56	100	5
Barrington Borough	44	7	27	1
Bellinaw Borough	141	6	22	2
Berlin Borough	37	30	27	2
Berlin Township	1	1	20	1
Brooklawn Borough	40	4	12	1
Camden City	2268	1223	1503	116
Chestnut Borough	6	5	8	2
Glencaster Borough	54	21	3	3
Collingswood Borough	274	142	166	4
Delaware Township	69	18	51	3
Gibbstown Borough	1	1	5	1
Gloucester City	235	132	176	14
Gloucester Township	106	86	78	4
Haddonfield Borough	218	90	189	6
Haddon Township	105	105	105	1
Gloucester Township	106	86	78	4
Haddon Heights Borough	6	6	189	6
Haddon Township	6	6	105	1
HINella Borough	4	4	69	1
Laurel Springs Borough	37	11	28	1
Lawlode Borough	24	7	21	1
Lincroft Borough	82	71	83	2
Magnolia Borough	25	23	20	2
Merchantville Borough	229	89	89	4
Mount Ephraim Borough	84	30	33	3
Oakira Borough	114	29	41	2
Pennsauken Township	252	81	184	18

CAMDEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Pine Hill Borough	26	8	19	1
Pine Valley Borough	1	1	1	1
Bunemede Borough	69	51	17	3
Somerdale Borough	19	2	9	1
Stratford Borough	18	12	15	1
Tarratock Borough	22	1	7	1
Voehes Township	51	22	30	2
Waterford Township	76	23	60	2
Winslow Township	57	16	29	1
Woodryne Borough				
Total	5066	2304	3157	215

CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough	4	3	3	3
Cape May City	86	76	55	3
Cape May Point Borough	3	4	3	3
Dennis Township	30	6	23	2
Lower Township	12	14	20	2
Middle Township	53	41	53	2
North Wildwood City	57	8	35	2
Ocean City	85	45	90	3
Sea Isle City	17	9	14	3
Stone Harbor Borough	8	4	7	1
Upper Township	25	12	29	2
West Cape May Borough	10	1	17	1
West Wildwood Borough	1	1	1	1
Wildwood City	112	120	106	7
Wildwood Crest Borough	16	4	12	1
Woodbine Borough	29	16	16	2
Total	543	385	504	28

CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City	351	188	231	15
Commercial Township	18	10	45	2
Deerfield Township	70	1	1	5
Downs Township	23	12	28	1
Fairfield Township	54	14	21	1
Greenwich Township	16	5	14	1
Hopewell Township	34	8	18	2
Landsis Township	205	117	183	5
Lawrence Township	48	8	12	3
Maurice River Township	32	11	33	3
Millville City	246	129	210	11
Shiloh Borough	8	4	6	3
Slow Creek Township	27	8	8	3
Upper Deerfield Township	19	10	25	3
Vineland Borough	140	97	103	7
Total	1493	657	967	66

ESSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Belleville Town	565	224	231	18
Bloomfield Town	784	287	415	18
Caldwell Borough	113	159	83	5
Caldwell Township	1	22	13	1
Cedar Grove Township	78	9	37	1
East Orange City	1839	667	856	39
Essex Falls Borough	21	10	13	1
Glen Ridge Borough	97	32	36	1
Irrington Town	1043	445	600	22
Livingston Township	154	87	85	3
Maplewood Township	332	124	245	6
Millburn Township	170	80	98	2
Montclair Town	679	410	515	23
Newark City	7914	4861	5172	304
North Caldwell Borough	19	2	4	1
Nutley Town	439	191	196	10
Orange City	724	449	414	23
Roseland Borough	29	5	25	2
South Orange Village	195	183	153	4
Verona Borough	367	37	75	4
West Caldwell Borough	73	6	40	3
West Orange Town	447	118	288	9
Total	15404	8145	9689	499

GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough	39	18	43	1
Deftord Township	175	10	15	3
East Greenwich Township	37	6	22	1
Elk Township	23	7	14	1
Franklin Township	67	23	50	2
Glassboro Borough	93	69	75	3
Greenwich Township	51	11	28	2
Harrison Township	54	11	38	4
Logan Township	40	6	21	2
Mantua Township	73	4	42	3
Monroe Township	75	24	55	3
National Park Borough	50	15	36	4
Newfield Borough	23	18	18	1
Panthers Borough	149	73	79	8
Pitman Borough	104	67	86	3
South Harrison Township	9	1	5	2
Swedensboro Borough	49	34	34	2
Washington Township	20	20	20	2
Weonah Borough	6	6	15	1
West Deptford Township	80	37	80	1
Westville Borough	85	50	67	4
Woodbury City	180	95	120	3
Woodbury Heights Borough	27	8	12	1
Woodwich Township	21	2	11	2
Total	1444	624	987	58

HUDSON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bayonne City	1241	660	763	44
East Newark Borough	40	24	21	2
Guttenberg Town	72	49	43	1
Harrison Town	246	135	163	12
Hoboken City	746	325	328	19
Jersey City	5299	3085	3801	145
Kearny Town	673	299	390	19
North Bergen Township	411	238	411	28
Secaucus Borough	106	106	71	1
Union City	837	656	664	25
Weehawken Township	194	137	185	6
West New York Town	627	624	531	15
Total	10856	6680	7260	332

HUNTERDON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Township	11	9	12	...
Bethlehem Township	5	2	4	...
Bloomsbury Borough	12	5	7	...
Calien Borough	14	12	9	...
Clinton Town	17	9	24	...
Clinton Township	21	25	...	1
Delaware Township	23	14	20	...
East Amwell Township	20	5	19	...
Flemington Borough	38	46	48	2
Franklin Township	20	10	14	...
Frenchtown Borough	15	8	24	...
Glen Gardner Borough	16	3	14	...
Hampton Borough	10	12	14	1
High Bridge Borough	32	16	27	...
Holland Township	10	10	9	...
Kingwood Township	1	1	16	...
Lambertville City	72	89	88	5
Lebanon Borough	9	10	13	1
Lebanon Township	9	4	20	...
Milford Borough	22	18	8	...
Raritan Township	23	2	23	...
Readington Township	41	18	38	1
Stockton Borough	13	2	10	...
Tewksbury Township	25	9	16	1
Union Township	18	2	13	...
West Amwell Township	12	...	9	2
Total	528	262	502	14

MERCER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Township	10	1	12	1
Ewing Township	949	39	166	10
Hamilton Township	741	241	357	30
Hightstown Borough	68	57	4	3
Hopewell Borough	34	18	35	1
Hopewell Township	53	5	30	1
Lawrence Township	156	25	30	2
Pennington Borough	31	22	22	...
Princeton Borough	150	102	86	3
Princeton Township	51	8	2	1
Trenton City	2051	1447	1448	60
Washington Township	27	8	20	1
West Windsor Township	54	21	19	...
Total	3978	1974	2305	134

MIDDLESEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Camp Kilmer	...	76	7	...
Carters Borough	207	108	112	6
Oranbury Township	40	16	3	3
Bunton Borough	129	60	26	2
East Brunswick Township	52	27	40	3
Helmetta Borough	8	5	10	...
Highland Park Borough	141	95	78	3
Jamestown Borough	24	24	7	3
Madison Township	109	21	48	...
Metuchen Borough	146	81	92	4
Middlesex Borough	48	33	34	3
Milton Borough	23	34	27	3
Monroe Township	23	6	20	...
New Brunswick City	933	490	384	22
North Brunswick Township	101	50	43	4
Perth Amboy City	632	456	333	24

MIDDLESEX COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Piscataway Township	115	23	63	2
Plainboro Township	15	5	14	1
Raritan Township	189	69	81	7
Sayreville Borough	126	50	77	2
South Amboy City	171	76	97	1
South Brunswick Township	44	7	30	1
South Plainfield Borough	107	45	45	4
South River Borough	199	98	98	6
Spotwood Borough	25	...	13	2
Woodbridge Township	390	149	230	12
Total	4011	2061	2101	123

MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Borough	15	3	7	...
Allentown Borough	19	23	14	1
Asbury Park City	330	241	15	15
Atlantic Township	16	12	19	...
Atlantic Highlands Borough	54	23	34	2
Avon Borough	29	15	39	1
Belmar Borough	69	64	68	2
Bendler Beach Borough	67	68	63	...
Bridle Borough	14	2	18	...
Deal Borough	32	10	23	...
Eatonville Borough	36	30	30	4
Englishtown Borough	19	6	14	...
Fair Haven Borough	44	8	2	...
Farmingdale Borough	19	11	18	1
Fort Hancock	11	4	1	...
Fort Monmouth	22	123	5	...
Freehold Borough	126	90	102	2
Freehold Township	62	5	37	1
Highlands Borough	46	21	26	1
Holmdel Township	8	2	5	...
Howell Township	62	23	50	1
Interlaken Borough	11	4	13	...
Keansburg Borough	64	48	54	2
Keansburg Borough	125	65	87	7
Little River Borough	20	2	26	2
Long Branch City	411	195	234	9
Manalapan Township	1	3	9	...
Manasquan Borough	55	46	38	2
Marlboro Township	1	37	21	...
Matawan Borough	98	28	87	...
Matawan Township	...	...	...	...
Middletown Township	167	55	125	7
Millstone Township	2	2	21	1
Monmouth Beach Borough	202	61	159	12
Neptune Township	51	10	13	...
Neptune City	96	17	46	8
Ocean Township	85	11	30	1
Oceanport Borough	1	20	19	1
Raritan Township	276	182	166	8
Red Bank Borough	11	...	2	...
Roosevelt Borough	52	30	32	5
Rumson Borough	31	5	13	1
Sea Bright Borough	13	12	16	...
Sea Girt Borough	3	20	7	1
Shrewsbury Borough	45	12	11	...
Shrewsbury Township	11	11	14	...
South Plainfield Borough	41	20	35	1
Spring Lake Borough	11	11	16	...
Spring Lake Heights Borough	31	41	19	...
Union Beach Borough	2	2	33	1
Upper Freehold Township	75	30	45	2
Wall Township	28	7	22	...
West Long Branch Borough	...	...	...	1
Total	3338	1668	2242	102

MOREN COUNTY - 1945

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Aconton Town	98	64	85	8
Boonton Township	10	8	4	...
Butler Borough	64	68	53	...
Chatham Borough	146	83	48	...
Chatham Township	22	1	12	...
Clester Borough	17	...	18	...
Clester Township	8	7	12	...
Denville Township	9	1	9	...
Dover Town	45	...	45	...
East Hanover Township	283	149	183	...
Floren Park Borough	16	11	15	11
Hanover Township	22	4	24	1
Harding Township	68	26	31	7
Jefferson Township	23	2	16	1
Klanckon Borough	11	3	28	4
Lincoln Park Borough	11	1	4	...
Madison Borough	39	19	22	...
Mendham Borough	139	74	90	...
Mendham Township	23	11	23	7
Mine Hill Township	15	1	8	...
Montville Township	67	...	20	...
Morris Plains Borough	41	31	37	4
Morris Township	287	150	207	2
Morris Township	97	14	33	11
Mountain Lakes Borough	32	6	26	1
Mount Arlington Borough	10	9	9	4
Mount Olive Township	84	12	25	1
Netcong Borough	28	24	24	1
Parsippany-Troy Hills Township	58	33	37	...
Pascack Township	50	24	34	...
Peapack Township	78	14	24	...
Randolph Township	32	2	24	...
Riverdale Borough	23	2	24	...
Rockaway Borough	79	34	32	...
Rockaway Township	70	17	27	...
Roxbury Township	81	31	44	...
Washington Township	26	11	27	...
Wharton Borough	46	38	43	...
Total	2372	972	1409	72

OCEAN COUNTY - 1945

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat City Borough	...	...	2	...
Bay Head Borough	3	...	5	...
Beach Haven Borough	12	5	7	1
Beachmont Borough	12	...	12	...
Berkeley Township	28	2	9	...
Brick Township	13	11	10	...
Dover Township	29	31	23	1
Eagles Nest Township	129	80	72	8
Harvey Cedars Borough	8	5	6	...
Inland Beach Borough	...	...	1	...
Inland Heights Borough	...	...	4	...
Jackson Township	28	6	8	1
Lacey Township	28	9	8	1
Lakehurst Borough	9	5	11	...
Lakeview Township	79	59	14	8
Lavallette Borough	150	80	119	7
Little Egg Harbor Borough	5	3	4	...
Long Beach Township	12	2	8	1
Manchester Township	5	2	4	...
Manokoking Borough	4	1	4	...
Ocean Township	4	1	1	...
Ocean Gate Borough	8	5	11	...
Pine Beach Borough	2	3	4	...
Plainedge Township	4	1	4	...
Point Pleasant Borough	84	22	28	3
Point Pleasant Borough	77	12	44	...
Point Pleasant Beach Borough	10	41	27	1

OCEAN COUNTY - Continued - 1945

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Seaside Heights Borough	8	6	9	...
Seaside Park Borough	13	2	4	...
Ship Bottom-Beach Arlington Borough	6	1	10	2
South Toms River Borough	3	1	10	...
Stafford Township	18	6	12	...
Surf City Borough	4	...	2	...
Tuckerton Borough	21	12	26	...
Union Township	16	8	27	...
Total	761	416	568	25

PASSAIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomington Borough	53	51	25	1
Clifton City	973	806	448	83
Haledon Borough	87	28	61	4
Hawthorne Borough	202	101	182	4
Little Falls Township	116	47	35	8
North Haledon Borough	43	35	24	2
Passaic City	913	759	617	81
Parsippany City	2361	1420	1630	70
Pompton Lakes Borough	64	37	30	2
Prospect Park Borough	78	68	63	4
Ringwood Borough	27	5	16	4
Wanaque Borough	69	43	49	...
Wayne Township	77	22	46	1
Wanaque Borough	163	41	67	...
West Milford Township	89	21	50	...
West Paterson Borough	46	11	34	...
Total	5203	3621	3817	164

SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Township	33	7	13	...
Elmer Borough	54	9	25	...
Elmhurst Township	30	6	18	...
Lower Alloways Creek Township	104	61	35	...
Lower Penna Neck Township	25	6	30	...
Mannington Township	46	2	17	...
Oldmans Township	200	68	64	7
Penna Grove Borough	19	3	19	2
Pile Grove Township	33	13	29	2
Pittsgrove Township	36	8	18	1
Quinton Township	191	75	91	6
Salem City	109	19	33	2
Upper Penna Neck Township	43	9	19	1
Upper Pittsgrove Township	47	20	40	...
Woodstown Borough	...	...	...	...
Total	970	276	447	24

SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Township	16	10	6	1
Bernards Township	53	25	42	1
Bernardsville Borough	56	28	32	2
Sand Brook Borough	205	105	68	9
Branchburg Township	25	24	20	1
Bridgewater Township	114	18	50	4
East Millstone Town	4	9	2	2
Far Hills Borough	9	...	3	...
Franklin Township	115	26	90	6
Green Brook Township	10	10	10	...
Hillsborough Township	57	13	28	3
Marble Borough	102	87	62	5
Millstone Borough	4	15	9	1
Montgomery Township	41	6	18	2
North Plainfield Borough	211	125	118	1
Paspack-Gladstone Borough	18	19	17	1
Raritan Borough	77	39	42	1
Rocky Hill Borough	8	2	5	...
Somerville Borough	204	112	88	6
South Bound Brook Borough	56	15	17	1
Warren Township	46	13	21	1
Watchung Borough	16	16	21	3
Total	1605	687	731	47

SUSSEX COUNTY 1945

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Borough	8	5	6	1
Andover Township	10	18	19	1
Branchville Borough	7	...	7	...
Byram Township	24	5	25	2
Frankford Township	72	39	88	1
Franklin Borough	15	7	5	...
Fredon Township	17	10	9	...
Green Township	53	16	21	2
Hamburg Borough	6	6	6	...
Hampton Township	28	2	12	...
Hardyston Township	6	4	10	...
Hopatcong Borough	18	5	17	2
Lafayette Township	11	5	10	4
Montague Township	108	53	87	...
Newton Town	17	6	14	...
Ogdensburg Borough	9	10	8	1
Sandport Township	40	20	21	1
Sparta Township	23	18	15	1
Stanhope Borough	15	9	16	...
Stillwater Township	36	24	22	1
Sussex Borough	23	5	11	...
Vernon Township	4	...	4	...
Walpack Township	31	4	14	...
Wantage Township	...	...	...	...
Total	586	259	380	19

UNION COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Township	57	8	26	3
Cranford Township	326	152	115	10
Elizabeth City	2047	1044	1111	62
Fanwood Borough	43	11	16	...
Garwood Borough	33	31	31	2
Hillside Township	340	95	156	4
Kenilworth Borough	44	14	28	...
Linden City	590	189	217	21
Mountainside Borough	29	8	9	1
New Providence Borough	33	26	26	1
New Providence Township	4	4	22	1
Plainfield City	723	324	452	19
Rahway City	349	205	184	9
Roselle Borough	345	180	126	7
Roselle Park Borough	174	39	56	6
Scotch Plains Township	113	28	48	5
Springfield Township	94	32	65	...
Summit City	232	325	170	7
Union Township	485	151	231	16
Westfield Town	305	143	181	15
Winfield Township	68	4	6	2
Total	6623	2727	3297	190

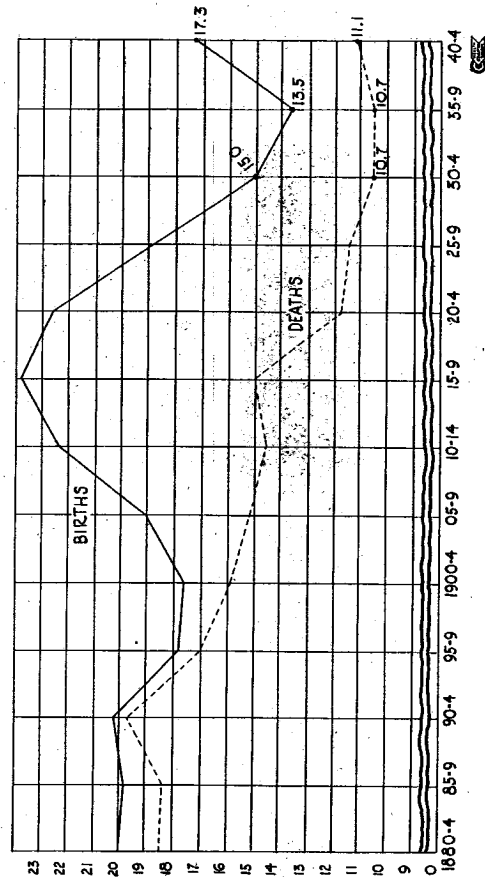
WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Township	14	3	8	1
Alpha Borough	42	32	17	...
Belvidere Town	53	23	39	2
Blairstown Township	22	13	23	2
Franklin Township	15	3	9	1
Frelighausen Township	12	2	5	...
Greenwich Township	26	19	18	...
Hackettstown Town	57	21	32	4
Hardwick Township	4	...	...	...
Harmony Township	30	2	20	...
Hope Township	11	6	6	...
Independence Township	17	6	11	1
Knowlton Township	7	5	12	...
Liberty Township	5	1	...	...
Lopatcong Township	9	5	12	...
Mansfield Township	12	6	24	...
Oxford Township	27	18	17	...
Pahaquarry Township	...	...	...	...
Phillipsburg Town	340	150	226	...
Pohatcong Township	31	6	26	2
Washington Borough	33	38	39	2
Washington Township	21	4	10	1
White Township	21	4	14	...
Total	824	347	623	25
State Total	7696	3711	4763	2470

TABLE 2.—DEATHS BY AGE PERIODS AND PERCENTAGES OF EACH OF TOTAL DEATHS, 1943

	AGE PERIODS											90 and over	Unknown				
	Total	Under 1 year	1 year	2 years	3 years	1 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
Deaths	47,636	2,470	200	118	89	76	2,948	267	684	1,102	1,897	4,054	8,131	10,860	11,348	5,890	792
Percentage of total	100.0	5.2	0.4	0.2	0.2	0.2	6.2	0.6	1.2	2.3	4.0	8.5	17.1	22.8	28.4	12.8	1.7

NEW JERSEY BIRTHS AND DEATHS FIVE YEAR AVERAGE RATES 1,000 POPULATION



Infant Mortality.—The infant mortality rate for 1945 was 32.1 per 1,000 babies born alive. The rate for 1944 was 33.9 and the average annual rate for the five-year period 1940-1944 was 33.9. 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 56.5. The colored races have shown high mortality rates ever since vital records were first collected and analyzed.

Maternal Mortality.—The rate of 1.5 for 1945 was 6.3% lower than the rate for 1944 and was the lowest since such rates were first computed in 1906. The average annual rate for the five-year period 1940-1944 was 2.1 per 1,000 live births. The colored maternal mortality rate for 1945 was 4.4.

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	7,832	20.7	10,867	29.0
1908	35,597	7,623	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	14.8	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

TABLE 4.—NUMBER OF BIRTHS, STILLBIRTHS, DEATHS UNDER ONE MONTH, DEATHS UNDER ONE YEAR AND MATERNAL DEATHS IN NEW JERSEY, WITH RATES PER 1,000 LIVE BIRTHS

Year	Births Reported	Deaths Under 1 Year of Age	Deaths Under 1 Month of Age	Rates per 1,000 Live Births	Still Births	Rates per 1,000 Births	Maternal Deaths	Rates per 1,000 Live Births
1909	42,077	1,778	2,645	69	2,809	66	322	7.5
1908	45,901	1,732	2,602	68	2,630	58	322	6.9
1907	47,608	1,655	2,655	66	2,617	55	329	6.8
1906	53,942	2,801	2,801	51	2,797	53	311	6.0
1905	60,078	3,814	2,887	49	2,754	47	427	6.9
1904	64,482	4,542	2,898	45	2,868	49	415	6.3
1915	68,408	7,481	2,995	47	3,074	49	460	7.4
1916	70,211	7,844	2,892	48	3,075	46	396	6.2
1917	71,808	7,542	2,892	48	3,221	45	396	6.2
1918	73,489	8,372	2,896	48	3,221	47	388	6.2
1919	75,481	8,771	2,696	48	3,221	47	411	6.4
1920	76,172	8,778	2,696	48	3,221	47	472	6.1
1921	76,172	8,778	2,696	48	3,221	47	472	6.1
1922	74,819	8,664	2,696	48	3,221	47	466	6.2
1923	74,819	8,664	2,696	48	3,221	47	466	6.2
1924	70,580	8,868	2,696	48	3,221	47	424	6.0
1925	70,580	8,868	2,696	48	3,221	47	424	6.0
1926	73,798	9,098	2,696	48	3,221	47	468	6.2
1927	73,798	9,098	2,696	48	3,221	47	468	6.2
1928	70,078	8,600	2,687	48	3,018	40	481	6.7
1929	68,287	8,116	2,687	48	3,018	40	481	6.7
1930	68,287	8,116	2,687	48	3,018	40	481	6.7
1931	64,078	8,049	2,385	32	2,947	68	380	5.9
1932	61,215	8,049	2,385	32	2,947	68	380	5.9
1933	58,072	7,525	2,107	30	2,676	40	378	5.9
1934	58,072	7,525	2,107	30	2,676	40	378	5.9
1935	58,072	7,525	2,107	30	2,676	40	378	5.9
1936	58,072	7,525	2,107	30	2,676	40	378	5.9
1937	58,072	7,525	2,107	30	2,676	40	378	5.9
1938	58,072	7,525	2,107	30	2,676	40	378	5.9
1939	58,072	7,525	2,107	30	2,676	40	378	5.9
1940	58,072	7,525	2,107	30	2,676	40	378	5.9
1941	58,072	7,525	2,107	30	2,676	40	378	5.9
1942	58,072	7,525	2,107	30	2,676	40	378	5.9
1943	58,072	7,525	2,107	30	2,676	40	378	5.9
1944	58,072	7,525	2,107	30	2,676	40	378	5.9
1945	70,995	2,470	1,850	22	1,857	24	118	1.6

TABLE 5.—DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS—1945

	Rate per 1,000 Live Births		
	Deaths Under One Month	Stillbirths	Maternal Deaths
New Jersey	22	24	1.5
Atlantic County	26	29	1.0
Atlantic City	32	26	0.9
Bergen County	20	21	0.6
Burlington County	24	23	0.5
Camden County	25	21	2.2
Camden City	31	24	2.2
Cape May County	31	28	1.8
Cumberland County	22	23	4.1
Essex County	22	23	1.8
East Orange	21	16	0.7
Irvington	15	15	2.9
Newark	24	28	2.1
Gloucester County	26	21	1.4
Hudson County	21	26	1.2
Bayonne	23	24	2.2
Hoboken	34	27	1.3
Jersey City	18	25	1.1
Union City	22	27	2.4
Hunterdon County	17	19	..
Mercer County	24	24	1.9
Trenton	25	28	1.5
Middlesex County	22	21	1.2
Monmouth County	21	25	1.5
Morris County	22	24	2.1
Ocean County	23	28	2.7
Passaic County	23	25	1.9
Passaic City	28	31	1.1
Paterson	23	30	2.7
Salem County	15	26	2.1
Somerset County	23	24	1.3
Sussex County	17	27	3.4
Union County	21	21	1.2
Elizabeth	21	26	1.0
Warren County	13	16	2.4

TABLE 7.—BIRTHS, DEATHS UNDER ONE YEAR AND INFANT MORTALITY RATES
(EXCLUSIVE OF STILLBIRTHS)—1945

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
New Jersey	76,995	2,470	32
Atlantic County	2,039	81	40
Atlantic City	1,064	49	46
Hammonton	161	6	37
Pleasantville	193	5	26
Bergen County	7,930	208	26
Bergenfield	186	10	54
Cliffside Park	283	11	39
Englewood	363	11	30
Fairview	150	4	27
Fort Lee	158	3	19
Garfield	528	8	15
Hackensack	437	15	34
Lodi	299	12	40
Lyndhurst Township	350	5	14
North Arlington	273	5	18
Ridgefield Park	186	6	32
Ridgewood	204	5	25
Rutherford	263	8	30
Teaneck Township	427	10	23
Wallington	168	6	36
Burlington County	1,860	66	35
Burlington	235	11	47
Camden County	5,066	212	42
Audubon	185	5	27
Camden	2,268	116	51
Collingswood	274	4	15
Gloucester City	235	14	60
Haddonfield	216	6	28
Pennsauken Township	232	18	78
Cape May County	543	26	48
Cumberland County	1,463	56	38
Bridgeton	351	15	43
Millville	246	11	45
Vineland	140	7	50
Essex County	15,404	492	32
Belleville	565	18	32
Bloomfield	784	13	17
East Orange	1,339	39	29
Irvington	1,043	22	21

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
Maplewood Township	332	6	18
Millburn Township	170	2	12
Montclair	679	23	34
Newark	7,914	304	38
Nutley	439	10	23
Orange	724	20	28
South Orange	195	4	21
West Orange	447	9	20
Gloucester County	1,444	58	40
Woodbury	180	3	17
Hudson County	10,858	332	31
Bayonne	1,341	44	33
Guttenberg	72	..	..
Harrison	246	12	49
Hoboken	746	36	48
Jersey City	5,299	145	27
Kearny	673	19	28
North Bergen Township	675	28	41
Secaucus	108	2	19
Union City	837	25	30
Weehawken Township	194	6	31
West New York	627	13	21
Hunterdon County	528	14	27
Mercer County	3,678	134	36
Princeton	155	3	19
Trenton	2,051	80	39
Middlesex County	4,011	123	31
Carteret	207	6	29
Highland Park	141	3	21
New Brunswick	633	22	35
Perth Amboy	682	24	35
Sayreville	126	7	56
South Amboy	171	2	12
South River	199	6	30
Woodbridge Township	590	12	20
Monmouth County	3,338	102	31
Asbury Park	330	15	45
Long Branch	411	9	22
Neptune Township	202	7	35
Red Bank	276	8	29

	<i>Births (Exclusive of Stillbirths)</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
Morris County	2,372	72	30
Dover	233	11	47
Madison	159	7	44
Morristown	297	11	37
Ocean County	751	25	33
Passaic County	5,203	164	32
Clifton	973	33	34
Hawthorne	202	4	20
Passaic	918	31	34
Paterson	2,251	70	31
Salem County	970	24	25
Salem City	191	6	31
Somerset County	1,505	47	31
Bound Brook	205	9	44
North Plainfield	211	2	9
Somerville	204	6	29
Sussex County	585	19	32
Union County	6,623	190	29
Cranford Township	326	10	31
Elizabeth	2,047	62	30
Hillside Township	340	4	12
Linden	569	21	37
Plainfield	723	19	26
Rahway	349	9	26
Roselle	345	7	20
Roselle Park	174	5	29
Summit	292	7	24
Union Township	485	16	33
Westfield	365	15	41
Warren County	824	25	30
Phillipsburg	340	9	26

Typhoid Fever.—The number of deaths was eight and the death rate was 0.2 per 100,000 population. In 1944 there were also eight deaths and the rate was 0.2. The New Jersey rate was low compared with the United States rate of 0.4. The number of deaths from typhoid fever and other diseases of the International List of Causes of Death by counties and cities may be obtained by referring to Table 20. Table 22 shows the more important causes by sex, color and age groups.

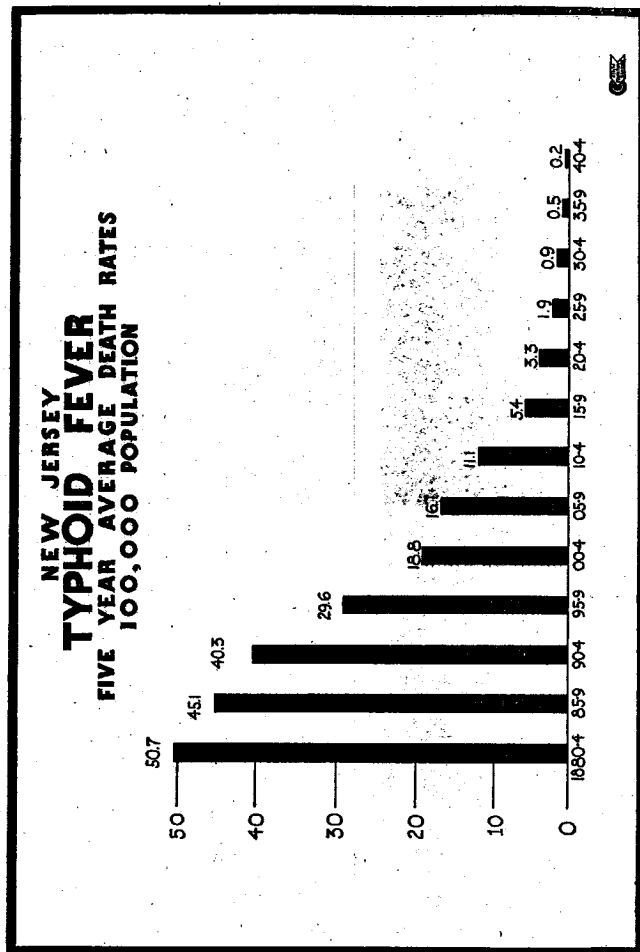


TABLE 2—COMPARATIVE DEATH RATES FROM TYPHOID FEVER PER 100,000 POPULATION, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Registration area of the United States	2.4	2.1	1.8	1.5	1.0	0.8	0.5	0.3	0.4	0.4
New Jersey	0.6	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2

TABLE 10—DEATHS FROM TYPHOID FEVER, PER 100,000 POPULATION, BY COUNTIES, FOR 10 YEARS

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Atlantic	4.3	1.4	1.4	2.4	3.3	1.0	...	...	...	0.9
Bergen	1.4	0.4	0.4	...	0.2	0.5	...	...	...	...
Burlington	1.0	2.0	1.0	1.0	...	...	...	...	...	...
Camden	0.5	0.7	...	1.2	...	0.4	...	0.4	...	0.3
Cape May	3.0	...	...	...	...	...	...	...	...	...
Cumberland .....	...	...	...	1.4	...	...	1.4	1.4	...	2.3
Essex	0.1	0.5	0.3	0.3	0.1	...	...	...	...	0.4
Gloucester	1.2	1.2	...	...	...	...	...	...	...	...
Hudson	0.2	0.1	0.2	...	...	...	...	1.3	...	0.4
Hunterdon .....	...	...	...	...	...	...	...	...	...	...
Mercer	1.0	...	0.5	...	...	...	...	...	...	...
Middlesex .....	...	...	0.4	...	...	...	...	...	...	...
Monmouth	0.6	3.0	...	...	...	...	...	...	...	...
Morris .....	...	...	...	...	...	...	...	...	...	...
Ocean .....	...	2.6	...	...	...	...	...	...	...	0.3
Passaic	0.3	...	0.2	0.3	...	...	...	...	...	...
Salem	5.5	...	...	2.4	...	0.3	0.3	...	...	0.9
Somerset	2.3	1.3	...	...	...	...	...	1.5	...	...
Sussex .....	...	...	...	...	...	...	...	...	...	...
Union	0.2	...	...	...	...	...	...	...	...	0.3
Warren .....	...	...	...	...	0.3	0.3	...	...	...	2.1
New Jersey	0.6	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2

Smallpox.—No deaths from smallpox have occurred in New Jersey since 1925, when as in 1924 the disease was prevalent in epidemic form in certain sections of the State.

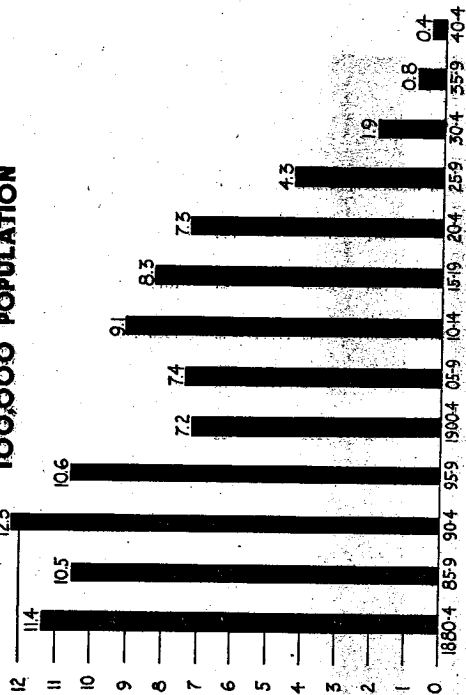
Measles.—Three deaths occurred from this disease, equivalent to a rate of 0.1 per 100,000 population. In 1944 11 deaths were reported, equivalent to a rate of 0.3.

Scarlet Fever.—The number of deaths from scarlet fever was 5, equivalent to a rate of 0.1 per 100,000 population. The number for the previous year was 11 and the rate was 0.3.

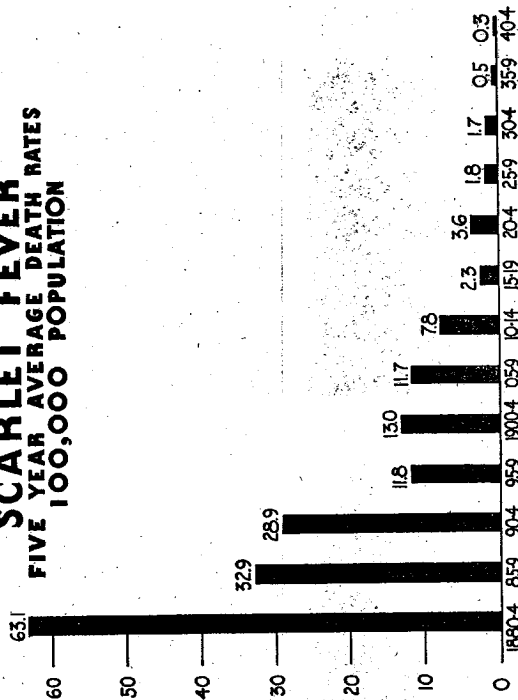
Malaria.—As the following figures show, deaths during recent years from this disease were practically negligible in the State:

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	2
1892	198	1909	25	1926	2	1943	3
1893	148	1910	25	1927	2	1944	0
1894	162	1911	25	1928	3	1945	3
1895	144	1912	29	1929	5		

NEW JERSEY
MEASLES
FIVE YEAR AVERAGE DEATH RATES
100,000 POPULATION

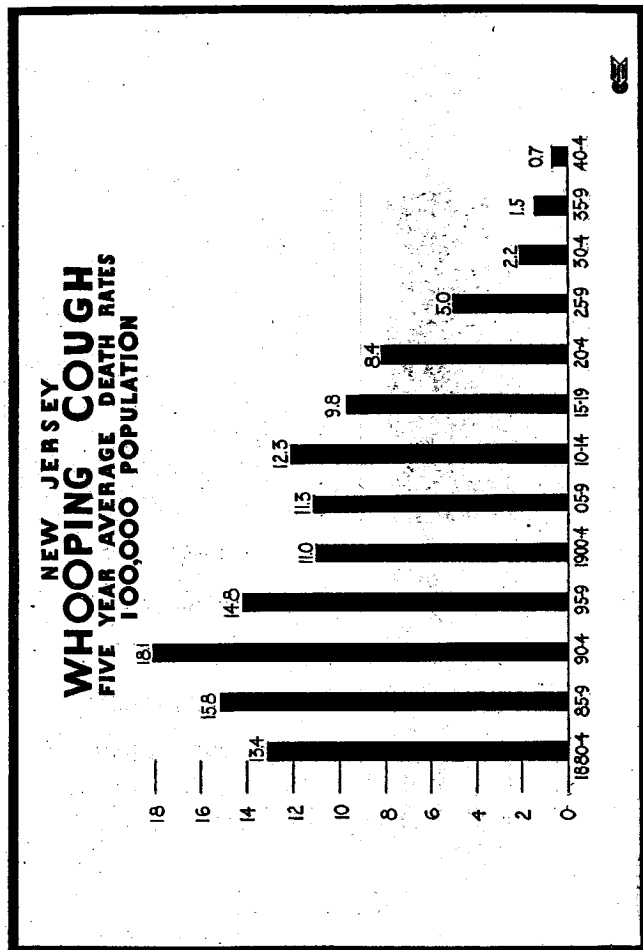


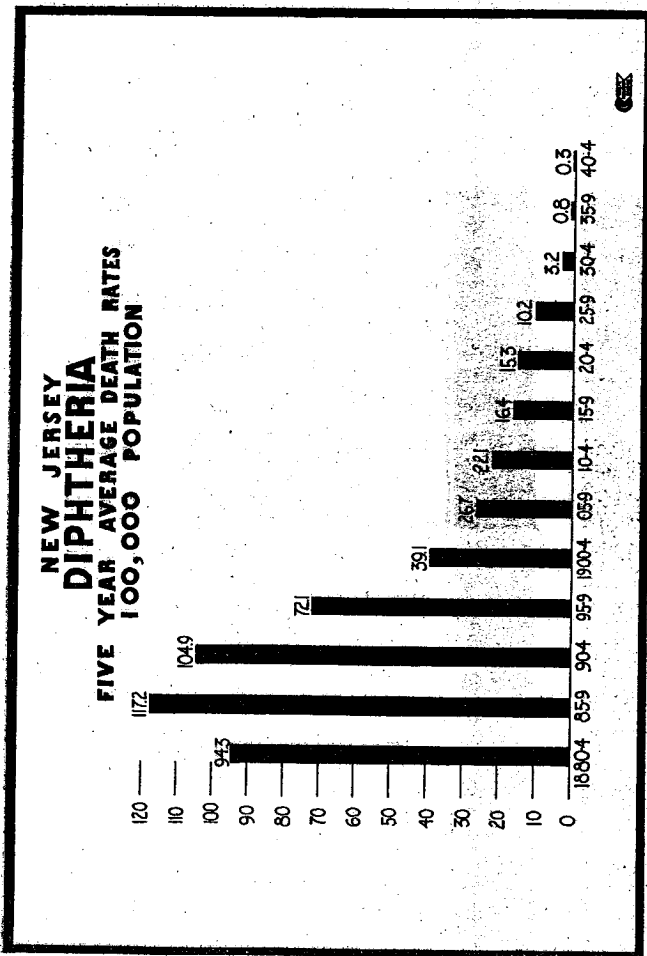
NEW JERSEY
SCARLET FEVER
FIVE YEAR AVERAGE DEATH RATES
100,000 POPULATION



Whooping Cough.—This disease caused 24 deaths during 1945; for 1944 the number was 10 and for 1943, 38. The 1945 death rate was 0.6 per 100,000 population.

Diphtheria.—During 1945 only six persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.1 per 100,000 population. The death rate from diphtheria for 1888 was 148 per 100,000 population. During the decade beginning with 1900, the rate declined from 48 to 25. The following ten-year period showed a decline to 18. The rate for 1945 was decidedly favorable when compared with the 1945 rate for the United States, which was 1.2.





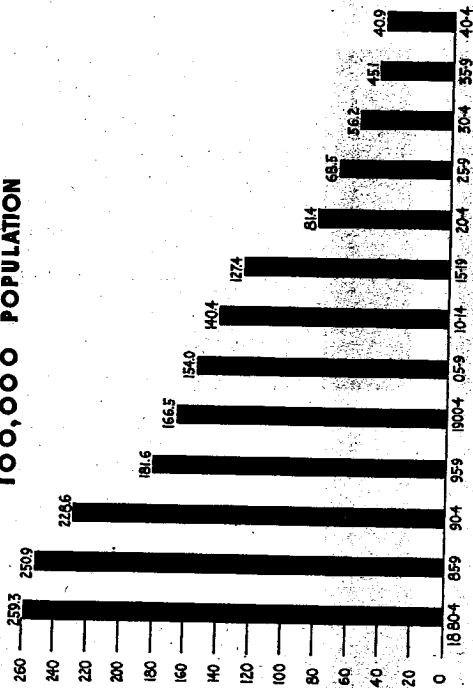
Tuberculosis.—The number of deaths from all forms of tuberculosis during 1945 was 1,726 of which 1,640 were deaths from tuberculosis of the respiratory system. The death rates per 100,000 population were 41.1 and 39.0 respectively. The rates for 1944 were 44.1 and 41.1.

White.—The number of deaths of white persons from all forms of tuberculosis was 1,352. This was equivalent to a rate of 34.1 per 100,000 white population. Similar figures for 1944 were 1,441 and 36.6.

Colored.—The number of deaths from all forms of tuberculosis was 374 and the rate 161.9 per 100,000 of colored population. Similar figures for 1944 were 397 and 173.2.

Cancer.—The number of deaths from cancer and other malignant growths for 1945 was 7,077 and the death rate was 168.5 per 100,000 population compared with 165.1 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**



**NEW JERSEY
CANCER
FIVE YEAR AVERAGE DEATH RATES
100,000 POPULATION**

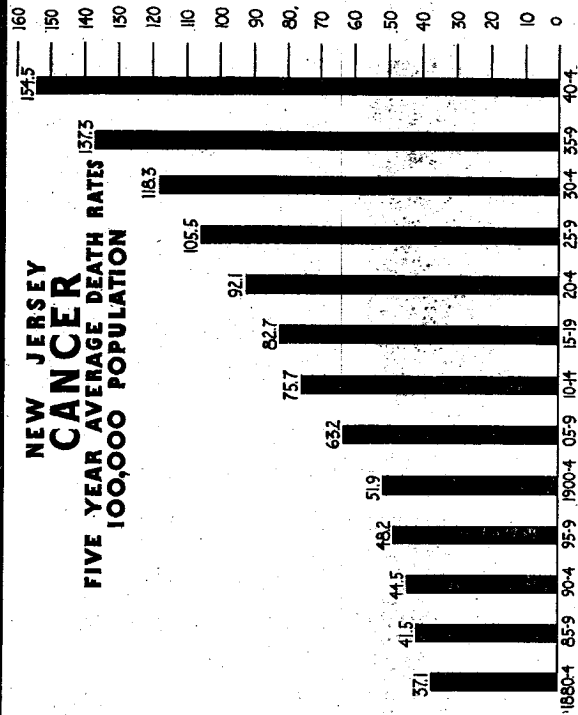


TABLE 14.—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY PART OF BODY AFFECTED AND COLOR OF DECEASED—NEW JERSEY, 1945

	Total		White		Colored	
	M	F	M	F	M	F
Cancer of the buccal cavity and lip	192	28	186	26	6	2
Tongue	51	6	44	7	2	2
Mouth	29	5	23	4	1	1
Unspecified parts of the buccal cavity	26	8	20	6	1	1
Pharynx	72	6	66	6	5	1
Cancer of the digestive organs and peritoneum	1900	1531	1515	1462	85	49
Esophagus	186	21	137	21	9	16
Stomach	627	387	596	376	32	16
Duodenum	6	7	295	210	8	2
Rectum and anus	296	212	285	210	8	2
Small intestine (except duodenum and jejunum)	447	539	439	509	17	20
Large intestine (except sigmoid flexure)	170	204	154	199	16	5
Liver and biliary passages	168	115	154	113	4	9
Pancreas	26	21	23	20	1	1
Other and unspecified sites	31	35	28	28	5	2
Cancer of the respiratory system	541	108	524	100	17	8
Trachea	76	6	73	6	3	3
Bronchus	115	15	111	15	4	6
Larynx	315	75	303	70	10	8
Pharynx	3	2	2	1	1	1
Mediastinum and unspecified sites	27	8	27	8	1	1
Cancer of the uterus	565	519	519	519	46	44
Other and unspecified sites	332	322	322	322	26	26
Cancer of other female genital organs	251	221	221	221	16	16
Ovary	209	200	200	200	9	9
Fallopian tube and parametrium	3	3	3	3	1	1
Vagina	19	18	18	18	1	1
Other and unspecified sites	1	1	1	1	1	1
Cancer of the breast	219	4	215	4	650	1
Cancer of the male genital organs	315	895	895	895	10	10
Prostate	298	298	298	298	0	0
Testis	13	13	13	13	1	1
Other and unspecified sites	14	14	13	14	1	1
Cancer of the urinary organs	228	184	220	178	8	6
Bladder	165	46	162	43	3	3
Kidney	15	1	14	1	5	5
Other and unspecified sites	1	1	1	1	1	1
Cancer of the skin (except vulva and scrotum)	65	35	54	34	1	1
Cancer of the brain and other parts of the central nervous system (including glioma, except the type specified as benign)	71	45	70	41	1	2
Glioma (including glioma of the optic chiasm)	41	27	40	25	1	2
Other and unspecified sites of the brain and central nervous system	30	18	30	16	0	0
Cancer of other and unspecified organs	224	193	213	179	11	9
Bone and cartilage	2	2	2	2	0	0
Bone and cartilage except jaw	45	33	42	33	8	8
Accessory sinuses	3	16	3	16	0	0
Thyroid gland	184	128	184	128	7	6
Other and unspecified organs	184	128	146	117	0	0
Grand Total	2694	2648	2594	2579	140	164

Encephalitis Lethargica or Sleeping Sickness.—Twenty deaths were assigned to this classification for the year 1945. In 1922, which was the year that the deaths were first separately classified, there were 45 deaths. Thirty-three deaths were recorded in 1944.

Nephritis.—Deaths due to acute and chronic nephritis totaled 2,935, compared with 2,917 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 1945 showed an increase of 36 over the number for 1944. Of the various means employed, poisonous gases held first place with hanging or strangulation and firearms in second and third places respectively. The number of deaths by suicide for ten years follows:

1936	574	1941	598
1937	588	1942	537
1938	682	1943	492
1939	563	1944	483
1940	664	1945	519

TABLE 12A.—TOILET OR ACCIDENTAL DEATHS IN NEW JERSEY, 1945
(International Classification Numbers 189-195)

FUICIDE BY SOLID OR LIQUID POISONS	1	1	104
Arsenic and compounds	1	1	104
Lead and derivatives	1	1	104
Cresol compounds	1	1	104
Mercury and compounds	1	1	104
Nux Vomica and strychnine	1	1	104
Other solids or liquid poisons	1	1	104
SUICIDE BY POISONOUS GASES	20	20	105
Carbon monoxide	20	20	105
Motor vehicle exhaust gas	18	18	105
Other carbon monoxide gas	2	2	105
Other poisonous gases	..	..	105
SUICIDE BY OTHER MEANS	189	189	106
Hanging or strangulation	101	101	106
Firesarms and explosives	20	20	106
Cutting or piercing instruments	52	52	106
Jumping from high places	8	8	106
Other or unspecified means	8	8	106
Infanticide (homicide of infants under 1 year of age)	46	46	106
Homicide by firearms or other weapons	46	46	106
Homicide by other means	40	40	106
Railway accidents (except collisions with motor vehicles)	72	72	106
MOTOR VEHICLE ACCIDENTS	26	26	107
Collisions between automobiles and trains	..	..	107
Collisions between automobiles and street cars	..	..	107
Collisions between automobiles and motor vehicles (except collisions with automobiles)	26	26	107
Motorcycle accidents (except collisions with automobiles)	..	..	107
STREET CAR AND OTHER ROAD-TRANSPORT ACCIDENTS	8	8	108
Street accidents (except collisions with trains or motor vehicles)	8	8	108
Water-transport accidents	20	20	108
Other and unspecified road-transport accidents	..	..	108
Accidents in mines and quarries	2	2	108
AGRICULTURAL AND FORESTRY ACCIDENTS	9	9	109
Injury by animals in agriculture	1	1	109
Other agricultural accidents	7	7	109
Other forestry accidents	1	1	109
Other forestry accidents involving machinery and vehicles	2	2	109
Other accidents involving machinery	21	21	109
Food poisoning	3	3	109
ACCIDENTAL ABSORPTION OF POISONOUS GAS	1	1	110
Inhalation of gas	1	1	110
Other carbon monoxide gas	..	..	110
Other poisonous gases	..	..	110
ACUTE ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS	21	21	111
Arsenic and compounds	1	1	111
Barbituric acid and derivatives	1	1	111
Metal compounds	1	1	111
Medicinal poisons	1	1	111
Nux Vomica and strychnine	1	1	111
Carbonic acid and phenol	..	..	111
Tobacco and derivatives	2	2	111
Narcotics	..	..	111
Methanol and other alcohols	..	..	111
Organic phosphorus compounds	..	..	111
Concealment of suspended substances	..	..	111
Accidental bars (except due to conflagration)	..	..	111
Accidental mechanical asphyxiation	..	..	111
Accidental injury by firearms	..	..	111
Accidental injury by cutting or piercing instruments	..	..	111
ACCIDENTAL INJURY BY FALL OR CRUSHING	908	908	112
Fall	18	18	112
Crushing	..	..	112
Injury (all deaths attributed to a catadium regardless of their nature)	6	6	112
Injury by animals (not specified as venomous or occurring in the course of agricultural and forestry operations)	8	8	112
Excessive heat	..	..	112
Excessive heat	..	..	112
Lifting	..	..	112
Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations)	..	..	112
OTHER ACCIDENTS	2	2	113
Sequence of preventive immunization, inoculation or vaccination	..	..	113
Other accidents due to medical or surgical intervention	..	..	113
Obstructions unobserved or uncorrected by inspected objects	..	..	113
Other and unspecified accidents	..	..	113

TABLE 12B.—MOTOR VEHICLE FATALITIES IN NEW JERSEY
BY TYPE OF ACCIDENT—1945

Total	671
Collision with	
Railroad train	26
Street car	2
Horse-drawn vehicle	..
Motorcycle	8
Pedestrian	392
Bicycle	15
Other motor vehicle	110
Fixed object	76
Non-collision	42
Type not stated	..

TABLE 12C.—ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE
OF DEATH AND PLACE OF OCCURRENCE—1945

(International Classification Numbers 169-195)

Total	Home	Accident in			Other	Not Stated
		Farm	Industrial Place	Public Place		
Total	2,539	1,077	24	203	1,177	58
Poisonous gas	163	153	..	4	6	..
Burns	154	115	1	19	17	2
Mechanical suffocation	52	50	..	1	1	..
Drowning	192	9	..	11	169	3
Cutting or piercing	3	1	..	1	1	..
Fall	944	628	8	65	216	27
Crushing, landslide	778	11	8	54	702	3
Electric currents	15	1	..	11	3	..
Other and unspecified injuries	238	109	7	37	62	23

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.

TABLE 13d.—DEATHS IN NEW JERSEY FROM CERTAIN TYPES OF ACCIDENTS
BY PLACE OF ACCIDENT—1945

(International Classification Numbers 169-195)

	Total Accidental Deaths	Motor Vehicle	Falls	Burns	Drowning
Total	2,539	671	903	167	161
Atlantic County	98	23	30	3	8
Bergen County	181	60	63	8	10
Burlington County	71	30	14	5	5
Camden County	159	37	61	10	7
Cape May County	45	11	9	2	5
Cumberland County	73	27	17	1	7
Essex County	425	89	189	31	8
Gloucester County	51	20	11	6	4
Hudson County	398	64	194	27	33
Hunterdon County	28	12	5	2	1
Mercer County	114	21	52	10	6
Middlesex County	141	56	33	9	8
Monmouth County	142	40	43	13	10
Morris County	76	19	21	6	9
Ocean County	42	9	7	4	12
Passaic County	129	35	52	4	9
Salem County	37	14	4	5	7
Somerset County	61	18	15	8	3
Sussex County	39	8	15	4	5
Union County	161	55	49	7	1
Warren County	41	12	13	2	2
Other States	16	9	4	..	..
Not stated	13	2	2	..	1

TABLE 13e.—ACCIDENTAL DEATHS IN NEW JERSEY BY MONTH OF DEATH—1945

(International Classification Numbers 169-195)

	Total Accidental Deaths	Motor Vehicle	Falls	Burns	Drowning
Total	2,539	671	903	167	161
January	218	58	87	21	1
February	194	49	73	24	..
March	218	49	77	17	8
April	201	47	74	18	18
May	192	34	91	7	14
June	206	46	73	13	31
July	205	54	58	2	30
August	183	53	57	6	25
September	179	48	78	5	14
October	220	73	68	16	8
November	241	90	69	10	5
December	282	70	98	28	7

TABLE 13f.—ACCIDENTAL DEATHS IN NEW JERSEY BY AGE OF DECEASED—1945

(International Classification Numbers 169-195)

	Total Accidental Deaths	Motor Vehicle	Falls	Burns	Drowning
All ages	2,539	671	903	167	161
Under 5 years	195	31	13	37	23
5 to 9	84	41	4	9	20
10 to 14	71	20	6	6	25
15 to 19	108	48	5	5	20
20 to 24	101	43	7	8	4
25 to 64	1,030	347	244	60	56
65 and over	950	141	624	42	13

TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL, IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Males—Percentage of Total	Females—Percentage of Total
	ALL CAUSES	100.0	54	46
1	Typhoid and paratyphoid fevers	0.0	75	28
2	Plague	0.0	29	..
3	Scarlet fever	0.0	80	21
4	Whooping cough	0.0	29	70
5	Diphtheria	0.0	87	33
6	Tuberculosis of the respiratory system	2.4	53	34
7	All other forms of tuberculosis	0.2	32	67
8	Malaria	0.8	78	24
9	Syphilis	0.5	47	58
10	Influenza	..	..	..
11	Smallpox	..	..	..
12	Measles	0.0	83	67
13	Typhus fever	0.0	100	..
14	Other infectious or parasitic diseases	0.7	60	40
15	Cancer and other malignant tumors	14.8	50	50
16	Nonmalignant tumors or tumors of unspecified nature	0.8	79	..
17	Chronic rheumatism and gout	0.1	32	62
18	Diabetes mellitus	2.0	33	37
19	Chronic or acute alcoholism	0.2	88	12
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	1.2	46	54
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	0.3	61	39
22	Intracranial lesions of vascular origin	9.1	44	56
23	Other diseases of the nervous system and sense organs	0.7	48	52
24	Diseases of the heart	35.8	57	43
25	Other diseases of the circulatory system	2.0	46	54
26	Bronchitis	0.2	55	45
27	Pneumonia and bronchopneumonia	5.5	43	57
28	Other diseases of the respiratory system	0.6	34	66
29	Diarrhea and enteritis	0.4	53	47
30	Appendicitis	0.4	61	39
31	Diseases of the liver and biliary passages	1.6	50	50
32	Other diseases of the digestive system	1.9	66	34
33	Nephritis	0.2	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	3.9	57	43
39	Senility, old age	0.5	48	52
40	Suicide	2.1	66	34
41	Homicide	0.8	70	30
42	Automobile accidents (all motor-driven road vehicles)	1.3	51	49
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1.8	60	40
44	Causes of death ill-defined, unknown, or unspecified	0.1	84	36

TABLE 15—DEATH RATES, TOTAL, WHITE AND COLORED, FROM IMPORTANT CAUSES, PER 100,000 TOTAL, WHITE AND COLORED POPULATION IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	Total Deaths per 100,000 Estimated Population	White Deaths per 100,000 Population	Colored Deaths per 100,000 Estimated Colored Population
	ALL CAUSES	1188.9	1114.8	1469.4
1	Typhoid and paratyphoid fevers	0.8	0.5	0.4
2	Plague	..	..	..
3	Scarlet fever	0.1	0.1	..
4	Whooping cough	0.0	0.6	1.3
5	Diphtheria	0.1	0.1	0.4
6	Tuberculosis of the respiratory system	25.0	27.7	148.0
7	All other forms of tuberculosis	2.0	1.4	13.9
8	Malaria	0.1	0.1	..
9	Syphilis	0.5	5.0	87.7
10	Influenza	2.6	2.0	8.2
11	Smallpox	..	..	..
12	Measles	0.1	0.1	..
13	Typhus fever	0.1	0.1	..
14	Other infectious or parasitic diseases	7.7	7.2	16.4
15	Cancer and other malignant tumors	165.5	170.6	181.6
16	Nonmalignant tumors or tumors of unspecified nature	6.2	4.7	18.0
17	Chronic rheumatism and gout	1.0	1.0	0.9
18	Diabetes mellitus	23.5	23.8	22.9
19	Chronic or acute alcoholism	2.1	2.0	5.2
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	13.3	13.0	17.3
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3.0	2.7	8.7
22	Intracranial lesions of vascular origin	102.2	101.7	127.7
23	Other diseases of the nervous system and sense organs	7.7	7.6	9.5
24	Diseases of the heart	430.5	401.8	574.5
25	Other diseases of the circulatory system	29.1	29.4	23.4
26	Bronchitis	2.5	2.4	4.8
27	Pneumonia and bronchopneumonia	38.7	36.7	91.8
28	Other diseases of the respiratory system	6.5	6.2	10.8
29	Diarrhea and enteritis	4.1	3.8	9.5
30	Appendicitis	4.9	4.6	10.4
31	Diseases of the liver and biliary passages	17.7	18.9	14.7
32	Other diseases of the digestive system	21.5	21.8	24.2
33	Nephritis	69.9	67.3	118.8
34	Other diseases of the urinary and genital systems	9.7	9.8	11.3
35	Puerperal infection	0.8	0.7	2.6
36	Other diseases of pregnancy, childbirth, and the puerperium	2.0	1.6	7.8
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1.5	1.4	2.2
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	43.8	41.4	85.7
39	Senility, old age	5.4	5.6	3.9
40	Suicide	12.4	12.8	4.8
41	Homicide	8.0	2.1	17.7
42	Automobile accidents (all motor-driven road vehicles)	14.9	14.4	23.4
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	43.5	42.7	87.1
44	Causes of death ill-defined, unknown, or unspecified	1.5	1.5	1.3

TABLE 16.—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATH, IN NEW JERSEY—1946

Cause of Death	MONTH OF DEATH											
	January	February	March	April	May	June	July	August	September	October	November	December
ALL CAUSES	47632	48064	42874	38773	38696	38963	34400	30779	24899	30771	30006	48968
1 Typhoid and paratyphoid fevers	11	2	1	1	2	1	1	2	2	2	1	1
2 Plague	1	1	1	1	1	1	1	1	1	1	1	1
3 Cholera	1	1	1	1	1	1	1	1	1	1	1	1
4 Whooping cough	4	2	1	1	1	1	1	1	1	1	1	1
5 Diphtheria	4	1	1	1	1	1	1	1	1	1	1	1
6 Tuberculosis of the respiratory system	16440	13713	13811	13212	17217	12714	14213	13714	11511	13213	12112	10211
7 The new forms of tuberculosis	86	8	4	16	8	15	8	10	4	8	12	1
8 Malaria	25	2	4	1	1	1	1	1	1	1	1	1
9 Syphilis	118	13	10	11	12	6	8	4	4	28	12	1
10 Infusaria	8	1	1	1	1	1	1	1	1	1	1	1
11 Typhus fever	13	1	1	1	1	1	1	1	1	1	1	1
12 Other infectious or parasitic diseases	823	20	11	28	15	30	34	45	10	27	27	24
13 Malignant tumors	896	922	624	584	877	613	523	605	547	634	582	687
14 Nonmalignant tumors	7077	829	21	18	15	11	10	8	19	20	19	22
15 Chronic rheumatism and gout	218	119	21	14	15	15	8	11	12	10	11	10
16 Chronic arthritis	103	10	5	4	4	4	1	1	1	1	1	1
17 Chronic or acute alcoholism	1409	124	134	130	131	106	73	101	100	115	126	4
18 Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	80	9	10	11	6	6	9	6	6	6	5	10
19 Diseases of the heart	868	64	42	50	58	51	45	45	45	34	50	38
20 Intracranial hematomas and diseases of the spinal meninges	10	10	15	16	15	8	11	12	10	4	11	10
21 Other diseases of the nervous system and sense organs	4284	400	345	389	380	323	297	315	306	323	240	445
22 Diseases of the respiratory system and nose	828	82	28	28	26	27	41	22	15	17	27	26
23 Diseases of the ear	1212	1215	1048	1174	1241	1222	1203	1134	1183	1403	1360	1347
24 Diseases of the heart	1223	131	9	12	8	12	9	16	88	93	101	159
25 Other diseases of the circulatory system	106	10	6	8	8	8	5	6	1	10	17	15
26 Bronchitis	106	10	6	8	8	8	5	6	1	10	17	15

27 Fractures and dislocations	1688	170	106	110	106	106	80	79	89	118	135	240
28 Other diseases of the respiratory system	254	27	27	25	19	22	22	12	24	19	21	31
29 Appendicitis	206	17	14	16	15	13	12	12	11	11	12	15
30 Diseases of the liver and biliary passages	784	55	85	72	69	74	60	74	67	64	61	65
31 Cancer diseases of the digestive system	915	70	73	87	77	64	80	78	88	88	79	75
32 Cancer diseases of the urinary and genital systems	406	27	23	28	27	28	38	188	103	214	232	97
33 Perineal infection	85	7	8	1	2	2	2	2	3	1	2	2
34 Other diseases of pregnancy, childbirth, and the puerperium	83	6	1	4	4	6	5	11	7	9	8	5
35 Diseases of the skin, cellular tissue, bones, and organs of movement	61	7	4	5	4	6	4	8	4	6	3	7
36 Congenital malformations and debility premature birth, and diseases peculiar to the first year of life	1842	154	162	134	123	168	150	154	161	154	148	158
37 Scalds, burns, and other injuries	227	24	18	19	13	23	11	14	16	15	25	22
38 Senility, old age	519	28	60	46	42	80	40	49	64	56	56	47
39 Suicide	120	9	0	11	9	14	6	11	13	16	14	15
40 Motor-vehicle accidents (all motor-driven road vehicles)	624	66	46	44	34	46	47	49	65	67	64	64
41 Other violent or accidental deaths (suicide, homicide, and deaths from unknown causes)	1828	103	122	104	146	166	143	113	128	143	101	206
42 Causes of death ill-defined, unknown, or unspecified	61	0	1	0	4	6	6	5	5	2	5	10

27 Fractures and dislocations	1688	170	106	110	106	106	80	79	89	118	135	240
28 Other diseases of the respiratory system	254	27	27	25	19	22	22	12	24	19	21	31
29 Appendicitis	206	17	14	16	15	13	12	12	11	11	12	15
30 Diseases of the liver and biliary passages	784	55	85	72	69	74	60	74	67	64	61	65
31 Cancer diseases of the digestive system	915	70	73	87	77	64	80	78	88	88	79	75
32 Cancer diseases of the urinary and genital systems	406	27	23	28	27	28	38	188	103	214	232	97
33 Perineal infection	85	7	8	1	2	2	2	2	3	1	2	2
34 Other diseases of pregnancy, childbirth, and the puerperium	83	6	1	4	4	6	5	11	7	9	8	5
35 Diseases of the skin, cellular tissue, bones, and organs of movement	61	7	4	5	4	6	4	8	4	6	3	7
36 Congenital malformations and debility premature birth, and diseases peculiar to the first year of life	1842	154	162	134	123	168	150	154	161	154	148	158
37 Scalds, burns, and other injuries	227	24	18	19	13	23	11	14	16	15	25	22
38 Senility, old age	519	28	60	46	42	80	40	49	64	56	56	47
39 Suicide	120	9	0	11	9	14	6	11	13	16	14	15
40 Motor-vehicle accidents (all motor-driven road vehicles)	624	66	46	44	34	46	47	49	65	67	64	64
41 Other violent or accidental deaths (suicide, homicide, and deaths from unknown causes)	1828	103	122	104	146	166	143	113	128	143	101	206
42 Causes of death ill-defined, unknown, or unspecified	61	0	1	0	4	6	6	5	5	2	5	10

TABLE 30-DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE)

Table with columns for State Total and various counties (Atlantic County, Atlantic City, Hammonton, Pleasantville, Bergen County, Bergenfield, Cliffside Park, Englewood, Fairview, Fort Lee, Garfield) and rows for causes of death (54. Cancer of the brain and other parts of the central nervous system, 55. Cancer of other and unspecified organs, etc.)

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS PLACES WHICH FOLLOW: 1948-Continued

Table with columns for various municipalities (Hackensack, Lodi, Lyndhurst Twp., North Arlington, Ridgefield Park, Ridgewood, Rutherford, Traneck Twp., Wallington, Burlington County, Burlington, Camden County, Camden, Audubon, Collingswood, Gloucester City, Pennsauken Twp., Haddonfield, Cape May County, Cumberland County, Bridgeton, Millsville, Vineland) and rows for causes of death (54. Cancer of the brain and other parts of the central nervous system, 55. Cancer of other and unspecified organs, etc.)

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE

Table with columns for Essex County, Berkshire, Bloodford, East Orange, Irvington, Maplewood Twp., Millburn Twp., Montclair, Newark, Netley, Orange, South Orange, West Orange, Gloucester County. Rows list various diseases like Cancer of the brain, Diabetes mellitus, etc.

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS PLACES WHICH FOLLOW): 1948—Continued

Table with columns for Woodbury, Hudson County, Bayonne, Guttenberg, Harrison, Hookton, Jersey City, Kearny, North Bergen Twp., Secaucus, Union City, Westview, West New York, Hunterdon County, Mercer County, Princeton, Trenton, Middlesex County, Carleton, Highland Park, New Brunswick, Perth Amboy, Somerville, South Amboy, South River, Woodbridge Twp. Rows list various diseases like Cancer of the brain, Diabetes mellitus, etc.

TABLE 30-DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS

Table with columns for various counties (Monmouth, Asbury Park, Long Branch, Neptune Twp., Red Bank, Morris County, Dover, Madison, Morristown, Ocean County, Passaic County, Clifton) and rows for causes of death (150-200) and a Totals row.

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS PLACES WHICH FOLLOW: 1946-Continued

Table with columns for various municipalities and townships (Hawthorne, Passaic, Paterson, Salem City, Bound Brook, North Plainfield, Somerville, Sussex County, Union County, Cranford Twp., Elizabeth, Elmsted Twp., Linden, Plainfield, Rahway, Roselle, Roselle Park, Summit, Union Twp., Westfield, Warren County, Patlipolung) and rows for causes of death (150-200) and a Totals row.

TABULATION OF DEATHS IN ATLANTIC CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
										2006	1906	1906	1883	1906	1883	4	6	4	18	43	41		78
1	Erythroid and paratyphoid fevers																						
2	Typhoid fever																						
3	Scarlet fever																						
4	Whooping cough																						
5	Pneumonia of the respiratory system	16	10	6	15	4	4	4	18	43	41	78	191	211	260	97	12						
6	All other forms of tuberculosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	Other infectious or parasitic diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	Cancer and other malignant tumors	44	42	7	9	3	3	3	17	23	22	38	54	67	77	104	122	144	174	204	244	284	
13	Neoplasmic tumors or tumors of unspecified character	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	Chorea rheumatica and post.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
15	Diabetes mellitus	81	14	10	8	4	4	4	21	27	26	41	54	67	77	104	122	144	174	204	244	284	
16	Chronic or acute alcoholism	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17	Other diseases of the circulatory system	6	8	1	1	1	1	1	3	4	4	6	7	7	10	11	11	11	11	11	11	11	
18	Other diseases of the blood, and chronic poisonings	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Intercranial lesions of vascular origin	127	44	40	10	21	21	21	68	88	87	126	166	206	246	286	326	366	406	446	486	526	

24	Other diseases of the nervous system and senses	8	1	2	35	29	29	29	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Diseases of the heart	288	120	99	85	7	7	7	17	22	21	31	41	51	61	71	81	91	101	111	121	131
26	Other diseases of the circulatory system	25	7	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
27	Pneumonia and bronchopneumonias	50	14	18	16	7	9	9	1	2	2	3	4	5	6	7	8	9	10	11	12	13
28	Other diseases of the respiratory system	10	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Diarrhea and enteritis	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Other diseases of the digestive system	26	10	10	2	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	26	8	4	15	26	26	26	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the urinary and genital systems	139	46	47	15	26	26	26	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Sexually transmitted diseases	7	4	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Puerperal infection	4	4	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Other diseases of pregnancy, childbirth, and the puerperium	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Diseases of the skin, cellular tissue, bones, and cartilages	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the eye	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Organic diseases of the mind	35	13	10	6	4	38	38	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Organic diseases of the nervous system	9	3	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Organic diseases of the sense organs	3	3	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Organic diseases of the circulatory system	3	3	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Organic diseases of the respiratory system	3	3	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Organic diseases of the digestive system	6	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Organic diseases of the urinary and genital systems	40	18	18	6	8	8	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1
45	Organic diseases of the nervous system	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

1946 Census Population, 64,004.

Total Resident Deaths, 1,006.

Rate per 1,000 Population, 15.7.

TABULATION OF DEATHS IN WASEN COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods																
		White		Male		Female		Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		Male	Female	Male	Female	Male	Female															
	ALL CAUSES	4297	2209	1968	72	49	206	292	26	28	26	61	103	147	181	709	1024	1081	569	77		
1	Typhoid and paratyphoid fever	1	1																			
2	Signe fever																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria																					
6	All conditions of the respiratory system	106	66	4	8	1	2	1	2	1	2	12	21	9	14	13	21	6	2			
7	All conditions of the circulatory system	1	1																			
8	Malaria																					
9	Syphilis	18	15	5	2																	
10	Septicemia	13	6	7	1																	
11	Smallpox																					
12	Measles																					
13	Typhus fever																					
14	Other febrile infectious diseases	33	24	10	1																	
15	Cancer and other neoplastic diseases	743	684	399	9	6	1	6	6	5	4	4	29	41	105	249	196	55	1			
16	Nonmalignant tumors or tumors of unspecified nature	22	9	12	1	1	2															
17	Chorea																					
18	Diabetes mellitus and gout	129	4	8	1																	
19	Chronic or acute alcoholism	4	4																			
20	Alcoholism, other general diseases, diseases of the sense organs, other diseases of the spinal cord	46	20	26			7	11	1	1	8	3	8	8	1	4	7	2				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	14	9	5																		
22	Intracranial lesions of vascular origin	404	107	528	9	8	2	2	2	2	2	5	10	11	63	106	180	74	1			

23	Other diseases of the nervous system and sense organs	28	14	12			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Disease of the heart	1454	816	622	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Other diseases of the circulatory system	128	67	61																		
26	Stroke	147	82	65																		
27	Pneumonia and bronchopneumonia	187	18	12	2																	
28	Other diseases of the respiratory system	6	2	4																		
29	Diarrhea and enteritis	76	40	36	2																	
30	Dysentery	88	50	31	2																	
31	Disease of the liver and biliary passages	237	97	136	2																	
32	Other diseases of the digestive system	34	15	19																		
33	Nephritis	55	43	9	2																	
34	Systemic disease of the urinary and genital organs																					
35	Preperal infection																					
36	Other diseases of pregnancy, childbirth, and puerperium	5	4	1																		
37	Disease of the skin, cellular tissue, bones, and joints	5	4	1																		
38	Organic malformations and disability from congenital malformations	168	93	67	2	1	164	167	1													
39	Senility, old age	26	11	15																		
40	Infantile paralysis	11	6	5																		
41	Hemiplegia																					
42	Automobile accidents (all motor-driven road vehicles)	90	39	10	1																	
43	Other accidents (including falls, burns, scalds, drownings, and automobile accidents excepted)	1446	72	68	4	8	8	15	3	3	5	10	9	6	13	80	35	15	1			
44	Causes of death ill-defined, unknown, or unspecified	6	5	2																		

Estimated Population, 420,086.

Total Resident Deaths, 4,297.

Rate per 1,000 Population, 10.2.

TABLEAU OF DEATHS IN BURLINGTON COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Numbers	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES	1194	698	48	89	68	78	6	8	15	24	38	26	44	176	299	208	200	28	28	21	6
1	Typhoid and paratyphoid fever																					
2	Flu																					
3	Scarlet fever																					
4	Diphtheria																					
5	Whooping cough																					
6	Influenza																					
7	Tuberculosis of the respiratory system																					
8	All other forms of tuberculosis																					
9	Syphilis																					
10	Indiense																					
11	Smallpox																					
12	Measles																					
13	Typhus fever																					
14	Other infections of parasitic diseases																					
15	Cancer and other malignant tumors	181	82	99	4	6	3	1	2	3	2	3	6	11	23	40	67	20	1	1	1	
16	Natural degenerative tumors of unspecified nature																					
17	Chronic rheumatism and gout																					
18	Diabetes mellitus	80	7	22	1	1																
19	Chorea																					
20	Arteriosclerosis, other general diseases of the blood, and chronic poisonings	18	10	6	1	3	4		1	1	1	2	1	1	1	1	1	1	1	1	1	
21	Alzheimer's (senescent dementia) and diseases of the brain	5	1	1	1	1	1															
22	Intra-cranial lesions of vascular origin	108	41	151	2	1																

Estimated Population, 89,626. Total Resident Deaths, 1,194. Rate per 1,000 Population, 13.9.

26	Other diseases of the nervous system and sense organs	10	220	5	12	2	1	2	1	1	3	6	3	8	2	11	26	118	86	9	
24	Diseases of the heart	385	140	19	1	2															
25	Other diseases of the circulatory system	54	19	1	2																
27	Pneumonia and bronchopneumonia	27	9	11	1	6	1	5	1	1	1	4	2	2	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	6	3	2	1	2															
29	Diphtheria and enteritis	8	3	2																	
30	Other diseases of the liver and biliary passages	16	8	8																	
31	Other diseases of the digestive system	17	5	10	2	1	1	1	1	1	1	2	3	5	9	10	13	42	23	1	1
32	Other diseases of the urinary and genital systems	14	84	62	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Puerperal infection	7	5	2																	
35	Other postpartum pregnancy, childbirth, and puerperal infections	1																			
37	Diseases of the skin, cellular tissue, bones, and cartilages	2																			
38	Organ of movement and stability																				
39	Organ of vision and hearing																				
40	Causes of death peculiar to the first year of life	48	28	16	1	1	47	46													
41	Senility, old age	17	11	4	2	1															
42	Accidents (all motor-driven road vehicles) and accidental deaths (traffic accidents, falls, drownings, suicides, homicides, and automobile accidents excepted)	8																			
43	Causes of death II-deducted, unknown, or unspecified	25	17	8	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Unspecified	86	21	12	3	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 89,626. Total Resident Deaths, 1,194. Rate per 1,000 Population, 13.9.

TABULATION OF DEATHS IN GARDEN COUNTY FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods														
		Male		Female		Under 1 Year		5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		Male	Female	Male	Female	Under 1 Year	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																				
1	Typhoid and paratyphoid fevers	3157	1327	1381	169	139	213	203	14	18	26	71	132	82	159	458	718	322	411	61
2	Scarlet fever	2	2																	
3	Whooping cough	8	1	7																
4	Diphtheria	107	86	26	16	6	3	3	5	13	15	7	12	19	19	7	2	2		
5	All other forms of diphtheria	17	9	1	6	1	1	1	1	2	1	1	1	1	1	1	1	1		
6	Measles	19	9	6	3	1	1	1	1	1	2	1	1	1	1	1	1	1		
7	Other infectious or toxic diseases	433	178	233	13	11	4	5	5	3	3	17	15	21	89	117	116	81	9	
8	Cancer and other malignant tumors	12	2	8	2															
9	Nonmalignant tumors or tumors of unspecified character	81	24	46	2	5														
10	Chronic rheumatism and gout	4	4																	
11	Diabetes mellitus	88	17	19		2	3	7	1	3	8	4	2	1	7	7	1	2	1	
12	Chronic or acute alcoholism	15	8	6	1	16	5	5	1											
13	Other chronic diseases	274	110	133	15	16														
14	Diseases of the blood and circulatory system																			
15	Measles (nonhemorrhagic) and diseases of the spinal cord																			
16	Intracranial lesions of vascular origin																			

23	Other diseases of the nervous system and sense organs	22	5	18	9	1	2													
24	Diseases of the heart	1076	550	426	28	84														
25	Other diseases of the circulatory system	64	32	29	2	1														
26	Pneumonia	138	47	82	13	10	2	6												
27	Pneumonia and bronchopneumonia	6	1	5																
28	Other diseases of the respiratory system	6	1	5																
29	Diarrhea and enteritis	26	10	9	2	4	19	21												
30	Diseases of the liver and biliary passages	42	19	23	1	2														
31	Other diseases of the digestive system	61	34	23	3	1	2	4												
32	Nephritis	178	115	130	21	20														
33	Other diseases of the urinary and genital systems	26	21	8	2	1														
34	Periperal infection	1																		
35	Other diseases of pregnancy, childbirth, and the puerperium	10																		
36	Diseases of the skin, cellular tissue, bones, and cartilages																			
37	Diseases of the skin, cellular tissue, bones, and cartilages (noninfectious)																			
38	Organic malformations and genital anomalies																			
39	Senility, old age	184	58	66	10	132	133													
40	Senility, old age (specify year of life)	10	16	19																
41	Senility, old age	15	8	1	4															
42	Automobile accidents (all motor-driven road vehicles) (specify month)	35	8	1	4															
43	Automobile accidents (all motor-driven road vehicles) (specify month)	89	32	7																
44	Causes of death H-Admed, unknown, or unspecified	121	62	33	8	8	15	22	2	4	4	7	8	4	12	15	20	18	1	
		6	8	8			2	2												

Estimated Population, 54,063.

Total Resident Deaths, 8,177.

Rate per 1,000 Population, 12.4.

TABULATION OF DEATHS IN GARDEN CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
	Males	Females	Males	Females	Males	Females	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	
																						1808	680	901	115	97	116	188	6	15	38	68	80	84	285	243	302	177	18
1 ALL CAUSES	1808	680	901	115	97	116	188	6	15	38	68	80	84	285	243	302	177	18				
2 Typhoid and paratyphoid fevers	1	1	1																			
3 Flu and parainfluenza	1	1	1																			
4 Scarlet fever	2	1	1																			
5 Diphtheria	2	1	1																			
6 Whooping cough	66	35	12	13	6																	
7 Tuberculosis of the respiratory system	7	2	1																			
8 All other forms of tuberculosis	5	2	1																			
9 Syphilis	11	5	2																			
10 Influenza	7	4	2																			
11 Smallpox	1	1	1																			
12 Typhus fever	1	1	1																			
13 Other infectious or parasitic diseases	12	6	3	1	10																	
14 Cancer and other malignant tumors	184	89	95	10	10																	
15 Cancer of the stomach	1	1	1																			
16 Cancer of the colon	4	1	2		1																	
17 Chronic rheumatism and gout	8	6	2		4																	
18 Chorea	3	2	1		1																	
19 Chorea acuta	8	3	2		2																	
20 Arteriosclerosis, other general diseases, diseases of the heart and chronic poisonings	18	11	6	1	4	1																
21 Diseases of the central nervous system and diseases of the spinal cord	5	3	1		1																	
22 Intracranial lesions of vascular origin	121	48	59	9	8	2																

1946 Census Population, 117,848.

Total Resident Deaths, 1,566.

Rate per 1,000 Population, 12.8.

23 Other diseases of the nervous system and sense organs of the head	10	1	6		1																	
24 Diseases of the heart	51	20	26	18	27																	
25 Other diseases of the circulatory system	32	18	13	1	2																	
26 Bronchitis	7	3	19	2	1	2																
27 Emphysema	12	5	10	1	1																	
28 Other diseases of the respiratory system	72	2	2	8	12	14																
29 Diarrhea and enteritis	17	6	7	2	2	2																
30 Appendicitis	31	6	6	2	2	2																
31 Other diseases of the digestive system	22	10	11	2	2	2																
32 Other diseases of the digestive system	29	15	11	2	2	2																
33 Nephritis	121	44	83	11	18																	
34 Other diseases of the urinary and genital systems	13	10	1	2	1																	
35 Puerperal infection	1																					
36 Other diseases of pregnancy, childbirth, and the puerperium	4		2		2																	
37 Diseases of the endocrine system, bones, and organs of movement	1																					
38 Congenital malformations and disability, premature of life and diseases peculiar to the fetus	72	28	28	9	7	72																
39 Senility, old age	6	2	4																			
40 Suicide	6	4	4																			
41 Accidents	6	6	6	1	8																	
42 Automobile accidents (all motor-driven road vehicles)	13	11	2		1																	
43 Other violent or accidental deaths (suicide, homicide, electrocution, asphyxiation, etc.)	59	31	19	7	2	4																
44 Causes of death ill-defined, unknown or unspecified	8	1	2		2	2																

1946 Census Population, 117,848.

Total Resident Deaths, 1,566.

Rate per 1,000 Population, 12.8.

TABULATION OF DEATHS IN OREGON FOR 1941, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods																
		All Deaths		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
		Male	Female																			
1	ALL CAUSES	604	231	217	84	28	36	53	3	4	19	13	6	24	64	119	157	72	8			
2	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	All other forms of tuberculosis	5	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Syphilis	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Smallpox	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Measles	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Other infectious or venereal diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Other infectious or venereal diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Other infectious or venereal diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Cancer and other malignant tumors	78	38	36	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
16	Nonmalignant tumors or tumors of unspecified character	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Chronic rheumatism and allied conditions	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Diabetes mellitus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Chronic or acute alcoholism	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Other diseases of the circulatory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Other diseases of the blood, and chronic conditions of the blood, and chronic conditions of the spinal cord	6	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Menstrual disorders and diseases of the genital organs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	Intrauterine fetuses of vascular origin	61	26	26	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

24	Other diseases of the nervous system and sense organs	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Diseases of the heart	77	23	1	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Diseases of the circulatory system	12	5	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	15	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Appendicitis	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Diseases of the liver and biliary passages	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Other diseases of the digestive system	11	6	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the digestive system	33	12	16	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Other diseases of the urinary and genital systems	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Other diseases of the urinary and genital systems	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Other diseases of the urinary and genital systems	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and joints	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Concussion, fracture, and dislocation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Concussion, fracture, and dislocation	18	18	4	1	16	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	7	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
42	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	30	19	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 25,975.

Total Resident Deaths, 504.

Rate per 1,000 Population, 18.0.

TABULATION OF DEATHS IN COCKERLAND COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods											90 and Over	Unknown				
		All Deaths		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
		Male	Female																			
1	ALL CAUSES	997	868	49	29	87	6	7	19	27	37	80	35	142	188	264	126	28				
2	Typhoid and paratyphoid fevers																					
3	Flu																					
4	Scarlet fever																					
5	Diphtheria																					
6	Tuberculosis of the respiratory system	26	13	10	8	8	2	2	8	7	8	1	2	6	1	1	1	1	1	1		
7	All other forms of tuberculosis																					
8	Syphilis	2	1	2	1	1																
9	Influenza	4	1	2	1	1																
10	Smallpox																					
11	Scarlet fever																					
12	Other infectious or parasitic diseases	7	2	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
13	Cancer and other malignant tumors unspecified nature	150	86	81	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
14	Chronic rheumatism and gout	10	8	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
15	Chronic or acute alcoholism	2	1	1																		
16	AVIATION, other general diseases, diseases of the blood, and chronic poisonings	6	3	3																		
17	Other diseases of the digestive system (except cancer)	12	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
18	Other diseases of the circulatory system (except cancer)	6	3	3																		
19	Other diseases of the respiratory system (except tuberculosis)	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
20	Other diseases of the genitourinary system (except cancer)	12	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
21	Other diseases of the nervous system and sense organs	6	3	3																		
22	Other diseases of the skin, cellular tissue, bones, and cartilages	106	51	45	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
23	Interracial unions of vascular origin																					

24	Other diseases of the nervous system and sense organs	9	5	4																
25	Diseases of the heart	173	115	13	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Bronchitis	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	21	13	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	10	8	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Diarrhea and enteritis	7	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Appendicitis	10	4	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	14	10	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the digestive system	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Nephritis	89	42	8	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Systemic infections																			
36	Other diseases of pregnancy, childbirth, and the puerperium	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and cartilages	2	1	1																
38	Congenital malformations and deformities, premature birth, and diseases peculiar to the first year of life	14	15	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
39	Senility, old age	9	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Suicide	10	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Homicide	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Accidents (all motor-driven road vehicles)	80	21	8	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	46	27	13	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Unspecified																			

Estimated Population, 79,370.

Total Resident Deaths, 997.

Rate per 1,000 Population, 12.2.

TABLETATION OF DEATHS IN ESSEX COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Last Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods												90 and Over	Unknown			
		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		
9889	ALL CAUSES	4677	8946	529	540	492	571	62	44	70	242	399	389	389	531	1727	2228	2198	1070	148		
1	Typhoid and paratyphoid fevers	6	2																			
2	Plague																					
3	Scarlet fever	1																				
4	Diphtheria	1																				
5	Diphtheria, scarlet fever and tetanus	1																				
6	Tuberculosis of the respiratory system	579	167	70	63	75	1	3	4	15	73	66	53	48	86	35	22					
7	All other forms of tuberculosis	28	7	4	9	6	2	3	1	6	4	3	4	3	8							
8	All other forms of tuberculosis	1																				
9	Syphilis	11	59	13	17	8	3	1	1	1	1	2	6	9	24	20	4					
10	Indiana	1																				
11	Measles	2																				
12	Mumps	1																				
13	Typhus fever	61	37	5	6	11	5	7	3													
14	Other infectious or parasitic diseases	1454	667	608	40	39	5	2	2													
15	Other infectious or parasitic diseases	60	12	23	4	11	1	1	1													
16	Neumalignant tumors or tumors of unspecified nature	293	58	163	6	20	1	1	1													
17	Chronic rheumatism and gout	11	5	1	8	2	1	1	1													
18	Arthritis, other general diseases, diseases of the blood, and chronic pyelonephritis	11	5	1	8	2	1	1	1													
19	Arthritis, other general diseases, diseases of the blood, and chronic pyelonephritis	117	33	49	4	11	5	10	6	4	4	10	6	6	27	20	22	2				
20	Myocardial infarction, diseases of the heart, and diseases of the spinal cord	25	11	8	5	1	2	3	1	2	1	1	1	1	18	14	45	151	194	268	142	
21	Myocardial infarction, diseases of the heart, and diseases of the spinal cord	832	324	450	93	40	1	2	1	2	1	1	1	1	18	14	45	151	194	268	142	
22	Intracranial lesions of vascular origin																					

Total Resident Deaths, 9 639. Estimated Population, 824,545. Rate per 1,000 Population, 11.7.

23	Other diseases of the nervous system and sense organs	41	24	12	3	2	2	3	3	1	8	10	7	7	5	9	13	10	7	1	1
24	Disease of the heart	849	164	124	3	3	2	3	3	10	10	4	4	4	94	159	244	107	167	66	15
25	Other diseases of the circulatory system	271	95	123	3	1	1	1	1	1	1	1	1	1	2	3	5	4	6	7	6
26	Bronchitis and emphysema	21	10	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Other diseases of the respiratory system	287	83	114	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
28	Diarrhea and enteritis	80	19	12	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
29	Diarrhea and enteritis	133	26	14	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
30	Appendicitis, the liver and biliary passages	103	26	14	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
31	Other diseases of the digestive system	210	321	95	6	12	5	12	4	4	4	4	4	4	4	4	4	4	4	4	4
32	Other diseases of the digestive system	566	240	231	29	38	2	2	2	1	4	13	13	13	23	43	55	119	142	94	10
33	Nephritis	86	30	21	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital organs	9																			
35	Fractural fracture	18																			
36	Other diseases of pregnancy, childbirth, and the puerperium	14	6	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Injury, poisoning, and external causes, toxic and infectious diseases, and diseases of the skin	335	167	151	40	27	884	874	4	1	2	8	1	1	2	2	2	2	2	2	2
38	Congenital malformations and debility, premature of life, and diseases peculiar to the first year	115	69	46	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Senility, old age	20	12	4	12	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Sticide	94	55	22	13	4	6	6	1	6	7	6	6	6	5	24	15	9	2		
41	Accidents (all motor-driven road vehicles)	865	131	139	22	14	21	23	7	4	5	18	16	17	19	44	46	83	68	9	
42	Accidents (all motor-driven road vehicles)	12	5	3	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
43	Other violent or accidental deaths (suicide, homicide, and deaths of unknown cause)																				
44	Causes of death ill-defined, unknown, or unspecified																				

Estimated Population, 824,545. Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN EAST ORANGE CITY FOR 1941, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1	ALL CAUSES	835	400	84	89	89	42	1	1	4	18	25	25	46	142	188	238	112	12			
2	Typhoid and paratyphoid fevers																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria																					
6	Diseases of the respiratory system	19	6	2	6	1	3															
7	All other forms of tuberculosis	1																				
8	Malaria																					
9	Infantile diarrhea																					
10	Infantile cholera	4	2	2																		
11	Smallpox																					
12	Measles																					
13	Scarlet fever	5	4	1	1																	
14	Other infectious or parasitic diseases	6	4	1	1																	
15	Cancer and other malignant tumors	180	88	60	5	2	1															
16	Nonmalignant tumors or tumors of unspecified character	4	2	2																		
17	Chronic rheumatism and gout	80	12	18	5																	
18	Diabetes mellitus																					
19	Chronic or acute nephritis																					
20	Diseases of the circulatory system	10	6	3	1	1																
21	Diseases of the blood, and chronic poisonings	6	1	1																		
22	Menstrual (nonmenstrual) and diseases of the genital system	9	1	1																		
23	Untraumatic lesions of vascular origin	86	27	53	6																	
24	Other diseases of the nervous system and sense organs	6	1	5																		
25	Diseases of the heart	848	172	146	13	9																
26	Diseases of the circulatory system	28	11	15	1	1																
27	Pneumonia and bronchopneumonia	16	6	7	1	2																
28	Other diseases of the respiratory system	2	1	1																		
29	Other diseases of the respiratory system	6	4	2																		
30	Appendicitis	15	5	10																		
31	Diseases of the liver and biliary passages	10	16	6																		
32	Other diseases of the digestive system	41	18	22	1	2																
33	Other diseases of the digestive system	7	4	1	1	1																
34	Other diseases of the urinary and genital systems	1	4	1	1	1																
35	Postural scoliosis																					
36	Diseases of the skin, cellular tissue, bones, and cartilage																					
37	Diseases of the skin, cellular tissue, bones, and cartilage	2	1	1																		
38	Organic malformations and debility, congenital																					
39	Organic malformations and debility, congenital	85	14	19	8	85	84	1														
40	Birth injuries and diseases peculiar to the first year of life	5	4	6																		
41	Scalds, cuts, and burns	2	1	1																		
42	Scalds, cuts, and burns	2	1	1																		
43	Automobile accidents (all motor-driven road vehicles)	4	2	1	1	1																
44	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	27	12	12	1	2	2															
45	Causes of death ill-defined, unknown, or unspecified	1	1	1																		

1940 Census Population, 66,945.

Total Resident Deaths, 865.

Rate per 1,000 Population, 12.4.

TABULATION OF DEATHS IN IRVINGTON FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	Cause of Death	All Deaths		White		Colored		Age Periods													
				Male		Female															
		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
1	ALL CAUSES	600	293	332	268	22	27	2	8	5	6	21	30	28	104	154	143	72	6		
1	Typhoid and paratyphoid fever	8	1	2	1																
2	Dysentery	1																			
3	Shigellosis	1																			
4	Whooping cough	1																			
5	Diphtheria	1																			
6	Scarlet fever	1																			
7	Acute infectious mononucleosis	10	6																		
8	Measles	2	1																		
9	Syphilis	1																			
10	Scarlet fever	1																			
11	Scarlet fever	1																			
12	Measles	3	5																		
13	Typhus fever	105	51																		
14	Scarlet fever	4	1																		
15	Scarlet fever	4	1																		
16	Nonmalignant tumors or tumors of unspecified nature	20	4																		
17	Chronic or acute alcoholism	9	5																		
18	Diabetes mellitus	4	16																		
19	Chronic or acute alcoholism	9	5																		
20	Avitaminosis, other general nutritional diseases	1	1																		
21	Alzheimer's disease	1	1																		
22	Alzheimer's disease	1	1																		
23	Alzheimer's disease	1	1																		
24	Alzheimer's disease	1	1																		
25	Alzheimer's disease	1	1																		
26	Alzheimer's disease	1	1																		
27	Alzheimer's disease	1	1																		
28	Alzheimer's disease	1	1																		
29	Alzheimer's disease	1	1																		
30	Alzheimer's disease	1	1																		
31	Alzheimer's disease	1	1																		
32	Alzheimer's disease	1	1																		
33	Alzheimer's disease	1	1																		
34	Alzheimer's disease	1	1																		
35	Alzheimer's disease	1	1																		
36	Alzheimer's disease	1	1																		
37	Alzheimer's disease	1	1																		
38	Alzheimer's disease	1	1																		
39	Alzheimer's disease	1	1																		
40	Alzheimer's disease	1	1																		
41	Alzheimer's disease	1	1																		
42	Alzheimer's disease	1	1																		
43	Alzheimer's disease	1	1																		
44	Alzheimer's disease	1	1																		

1940 Census Population, 55,328.

Total Resident Deaths, 900.

Rate per 1,000 Population, 10.8.

28 Other diseases of the nervous system and sense organs

29 Diseases of the heart

30 Other diseases of the circulatory system

31 Bronchitis and bronchiectasis

32 Emphysema and pulmonary disease

33 Other diseases of the respiratory system

34 Diarrhea and enteritis

35 Dysentery

36 Diseases of the liver and biliary passages

37 Other diseases of the digestive system

38 Nephritis

39 Diseases of the urinary and genital systems

40 Peripneumonia

41 Other diseases of pregnancy, childbirth, and puerperium

42 Diseases of the skin, cellular tissue, bones, and joints

43 Congenital malformations and deformities

44 Diseases of the eye

45 Diseases of the ear, nose, and throat

46 Diseases of the mouth

47 Diseases of the ear, nose, and throat

48 Diseases of the eye

49 Diseases of the ear, nose, and throat

50 Diseases of the eye

51 Diseases of the ear, nose, and throat

52 Diseases of the eye

53 Diseases of the ear, nose, and throat

54 Diseases of the eye

55 Diseases of the ear, nose, and throat

56 Diseases of the eye

57 Diseases of the ear, nose, and throat

58 Diseases of the eye

59 Diseases of the ear, nose, and throat

60 Diseases of the eye

61 Diseases of the ear, nose, and throat

62 Diseases of the eye

63 Diseases of the ear, nose, and throat

64 Diseases of the eye

65 Diseases of the ear, nose, and throat

66 Diseases of the eye

67 Diseases of the ear, nose, and throat

68 Diseases of the eye

69 Diseases of the ear, nose, and throat

70 Diseases of the eye

71 Diseases of the ear, nose, and throat

72 Diseases of the eye

73 Diseases of the ear, nose, and throat

74 Diseases of the eye

75 Diseases of the ear, nose, and throat

76 Diseases of the eye

77 Diseases of the ear, nose, and throat

78 Diseases of the eye

79 Diseases of the ear, nose, and throat

80 Diseases of the eye

81 Diseases of the ear, nose, and throat

82 Diseases of the eye

83 Diseases of the ear, nose, and throat

84 Diseases of the eye

85 Diseases of the ear, nose, and throat

86 Diseases of the eye

87 Diseases of the ear, nose, and throat

88 Diseases of the eye

89 Diseases of the ear, nose, and throat

90 Diseases of the eye

91 Diseases of the ear, nose, and throat

92 Diseases of the eye

93 Diseases of the ear, nose, and throat

94 Diseases of the eye

95 Diseases of the ear, nose, and throat

96 Diseases of the eye

97 Diseases of the ear, nose, and throat

98 Diseases of the eye

99 Diseases of the ear, nose, and throat

100 Diseases of the eye

TABULATION OF DEATHS IN NEWARK FOR 1944, ACCORDING TO THE ARRANGED INTERNATIONAL LIST OF CAUSES OF DEATH

Arranged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods															
		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	
1	ALL CAUSES	5172	2470	1388	400	893	804	381	89	27	50	172	288	228	822	1077	1179	1098	446	08	
2	Typhoid and paratyphoid fevers	2	1	1								1	1								
3	Plague																				
4	Scarlet fever	1	1	2																	
5	Diphtheria	1	2	3																	
6	Tuberculosis of the respiratory system	285	106	41	52	68	1	2	2	4	13	95	89	22	36	59	18	18	2		
7	All other forms of tuberculosis	2	6	2	9	5	1	3	1	6	5	1	6	4	1	1	1	1			
8	Syphilis	45	24	7	12	2	8	8	1	1	1	2	1	2	8	18	14	1			
9	Infuenza	6	1	4	1																
10	Smallpox																				
11	Measles																				
12	Erysipelas																				
13	Typhus fever	81	11	11	7	3	3	3	1	1	2	5	2	5	18	25	18	37	4		
14	Other infections or parasitic diseases	722	352	282	29	38	3	5	1	1	1	2	6	15	43	185	255	188	57	4	
15	Cancer and other malignant tumors	27	7	10	3	4	1	1	1	1	1	6	8	7	8	7	8	4			
16	Heart disease	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
17	Chronic rheumatism and gout	18	4	8	3	2	1	2	1	1	1	1	1	1	1	1	1	1			
18	Gonorrhea	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
19	Chancres, melioid, and chancroid	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisoning	54	26	21	2	5	4	6	4	2	4	4	4	2	4	16	5	6	1		
21	Malnutrition (starvation, anorexia, and diseases of the alimentary canal)	18	7	5	5	1	2	8	1	1	2	2	2	2	2	4	1	1			
22	Intracranial lesions of vascular origin	404	185	194	52	28	1	2	1	1	1	11	11	11	20	85	108	112	4	6	

23	Other diseases of the nervous system and sense organs	41	28	15	1	2	1	2	1	1	1	7	4	8	6	7	513	498	302	28
24	Diseases of the heart	1558	683	100	102	2	4	5	9	13	4	17	4	61	96	961	513	498	302	28
25	Diseases of the circulatory system	179	61	21	1	1	1	1	1	1	1	2	1	2	1	2	2	1	1	6
26	Bronchitis and bronchopneumonia	9	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	189	82	54	29	24	38	44	1	2	8	5	10	16	10	20	81	84	6	8
28	Other diseases of the respiratory system	21	12	6	2	5	18	1	1	1	1	1	1	1	1	2	6	8	1	1
29	Other diseases of the respiratory system	29	10	9	5	5	2	3	1	4	4	4	4	1	1	5	4	2	1	1
30	Appendicitis	96	44	41	4	7	5	4	6	6	6	6	6	6	11	23	24	16	8	1
31	Diseases of the liver and biliary passages	46	44	41	4	7	5	4	4	4	4	4	4	4	6	14	23	16	8	1
32	Other diseases of the digestive system	246	115	124	19	25	2	3	4	5	6	6	8	15	24	53	43	78	4	6
33	Other diseases of the urinary and genital systems	46	38	10	2	1	1	1	1	2	2	2	2	2	2	6	10	14	7	1
34	Other diseases of the urinary and genital systems	8	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Other diseases of the urinary and genital systems	12	7	7	5	6	1	2	9	1	2	2	2	2	2	2	2	2	2	2
36	Diseases of the skin, cellular tissue, bones, and the pericranium	8	9	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and the pericranium	274	62	78	85	28	208	214	2	1	2	1	2	1	1	1	1	1	1	1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	22	10	9	2	10	2	1	1	1	2	7	7	4	6	5	2	20	9	6
39	Stillbirth, stillborn, and abortions	28	9	2	10	2	1	1	1	1	2	7	7	4	6	5	2	20	9	6
40	Stillbirth, stillborn, and abortions	64	86	16	9	5	5	3	1	5	5	8	5	4	13	13	5	2		
41	Homicide	222	121	72	19	10	15	22	4	3	3	13	15	11	82	26	52	28	3	
42	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
43	Causes of death ill-defined, unknown, or unspecified	5	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Total Resident Deaths, 5,172.

1940 Census Population, 429,780.

Rate per 1,000 Population, 12.0.

TABULATION OF DEATHS IN SLOUGHCENTER COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods																
		All Deaths		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
1	ALL CAUSES	887	481	413	85	38	58	76	4	8	15	26	36	41	148	302	249	172	17	17		
2	Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6	Tuberculosis of the respiratory system	21	14	2	8	2	1	2	6	1	4	7	8	1	4	7	8	1	1	1	1	
7	All other forms of tuberculosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
13	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	Other infectious or parasitic diseases	3	5	1	2	8	1	4	2	1	4	2	1	4	2	7	23	42	41	10	1	
15	Cancer and other malignant tumors	149	86	86	2	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
16	Nonmalignant tumors or tumors of unspecified character	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17	Chronic rheumatism and gout	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
18	Diabetes mellitus	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	Chronic alcoholism	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Other diseases of the circulatory system	33	10	28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
21	Other diseases of the blood, and chronic poisonings	10	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
22	Meckigrits (nonmeningococcal) and diseases of the spinal cord	6	3	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
23	Ischaemic forms of vascular origin	81	52	39	6	4	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	

24	Other diseases of the nervous system and sense organs	7	3	4	17	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Diseases of the heart	393	176	138	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Other diseases of the circulatory system	28	19	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	26	9	3	4	8	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Other diseases of the respiratory system	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Arteriosclerosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Arteriosclerosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	9	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Other diseases of the digestive system	17	33	24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Other diseases of the urinary and genital systems	89	35	54	3	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Other diseases of the urinary and genital systems	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Fungal infections	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	The purpurae	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Diseases of the skin, cellular tissue, bones, and cartilage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Organic nervous system and mental diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Organic nervous system and mental diseases	48	18	16	4	2	41	48	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Organic nervous system and mental diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Organic nervous system and mental diseases	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Organic nervous system and mental diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	18	9	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Causes of death ill-defined, unknown, or unspecified	86	16	18	6	1	7	1	8	1	2	3	1	2	3	3	3	3	3	3	3
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated Population, 74,738. Total Resident Deaths, 987. Rate per 1,000 Population, 13.2.

TABULATION OF DEATHS IN HUDSON COUNTY FOR 1944, ACCORDING TO THE ARRANGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Cause of Death	All Deaths		White		Colored		Age Periods														
	Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1 ALL CAUSES	7280	8573	3144	128	115	382	398	22	26	51	152	263	298	408	1404	1821	1559	694	56		
2 Typhoid and paratyphoid fevers	1	1	1																		
3 Plague																					
4 Scarlet fever	2	2	2																		
5 Diphtheria	2	2	2																		
6 Pertussis	1	1	1																		
7 Tuberculosis of the respiratory system	348	284	88	18	8	40	74	34	40	73	83	118	1								
8 All other forms of tuberculosis	18	7	6	2	3	1	12	1	1	2	2	8	8	2	2						
9 Syphilis	41	26	9	4	2																
10 Influenza	9	6	3	4	2																
11 Measles	12	8	3	3	2																
12 Mumps	1	1	1																		
13 Typhus fever	14	20	11	1	2	2	6	2	2	2	3	5	4	5	8	8	8	1			
14 Other infectious or parasitic diseases	1184	684	518	18	17	2	4	2	5	11	52	97	83	246	339	237	74	2			
15 Neoplasms (tumors) of unspecified nature	36	7	27	*	1	1	1	1	1	1	2	6	6	1	10	5	4	1			
16 Chronic rheumatism and gout	7	4	3																		
17 Chronic or acute alcoholism	27	6	12		2																
18 Chronic or acute alcoholism	210	5	4																		
19 Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	77	29	46		8	1	4	3	1	6	9	7	6	16	11	9	2				
20 Diseases of the central nervous system (all diseases of the spinal cord)	585	8	5	2	1	1	1	1	2	1	8	12	14	23	108	157	148	73	4		
21 Intracranial lesions of vascular origin																					
22 Intracranial lesions of vascular origin																					

23 Other diseases of the nervous system and sense organs of the heart	247	29	1	1	1	4	5	2	5	6	6	6	9	2	16	6	4	869	51		
24 Diseases of the heart	1857	1188	41	86	2	2	2	2	1	24	65	62	4	21	162	699	787	42	81	4	
25 Other diseases of the circulatory system	128	57	68																		
26 Bronchitis and pneumonia	114	12	2	9	5	40	60	7	1	8	1	1	1	3	3	1	1	1	1	1	
27 Other diseases of the respiratory system	284	38	18	2	5	10	2	10	11	8	5	10	2	10	11	1	1	18	3		
28 Other diseases of the respiratory system	28	10	11	1	13	14	2	2	1	2	2	8	1	1	1	1	1	1	1		
29 Diarrhea and enteritis	129	11	9	1	1	1	2	1	2	1	2	1	1	1	1	3	6	18	9		
30 Appendicitis	129	11	9	1	1	1	2	1	2	1	2	1	1	1	1	3	6	18	9		
31 Diseases of the liver and biliary passages	146	95	47	1	1	3	6	2	1	5	12	16	11	19	39	39	15	10			
32 Other diseases of the digestive system	301	149	144	3	5	2	6	2	1	9	17	15	13	17	37	67	74	69	40	5	
33 Nephritis	54	38	15	1	1	1	1	1	1	2	5	2	1	1	8	10	15	14	5	1	
34 Other diseases of the urinary and genital organs	6																				
35 Periperal infection	7																				
36 Other diseases of pregnancy, childbirth, and the puerperium	8																				
37 Diseases of the genital tract, female, and organs of movement	3																				
38 Congenital malformations and debility, prenatal	285	147	108	6	7	232	261	2	1	1											
39 Stillbirths	15	4	10	1	1	1	1	1	1	7	12	10	4	6	8	9	8	9	3		
40 Sudden infant death	82	43	11	1	1	1	1	1	1	4	4	2	1	1	1	1	1	1	1		
41 Sudden infant death	73	57	14	2	1	8	9	2	5	9	4	4	11	18	9	1					
42 Automobile accidents (all motor-driven road vehicles)	311	179	120	9	5	2	7	5	10	8	8	16	12	13	47	67	68	47	8		
43 Other violent or accidental deaths (homicide, suicide, and deaths from fire, lightning, etc.)	6	5	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2			
44 Causes of death ill-defined, unknown, or unspecified																					

*Estimated Population, 1947, 962.

Total Resident Deaths, 7,986.

*Estimated Population, 12,122.

TABULATION OF DEATHS BY RAYONNE FOR 1946, ACCORDING TO THE ABBRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abbreviated International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods																
							Under 1 year		Under 5 years		5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
			Male	Female	Male	Female	Male	Female	Male	Female													
1	ALL CAUSES	768	428	328	12	6	44	84	8	8	22	43	40	47	188	182	131	89	2				
2	Typhoid and paratyphoid fevers	1		1																			
3	Plague																						
4	Scarlet fever	1		1																			
5	Diphtheria	1		1																			
6	Tuberculosis of the respiratory system	33	15	13	2	1	8	4	6	2	10	5											
7	All other forms of tuberculosis	2		2																			
8	Syphilis	2		2																			
9	Influenza																						
10	Smallpox																						
11	Erysipelas																						
12	Typhus fever																						
13	Other infectious or parasitic diseases	6	1	8	1																		
14	Cancer and other malignant tumors	138	70	65	8																		
15	Cancers of unknown or unspecified nature	2		2																			
16	Chronic rheumatism and gout	23	7	16																			
17	Diabetic mellitus																						
18	Chorea																						
19	Alcoholism																						
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	9	4	6																			
21	Meningitis (meningococcal) and diseases of the spinal cord (meningococcal) and diseases of	1		1																			
22	Intracranial lesions of vascular origin	56	35	30																			
23																							
24	Diseases of the nervous system and sense	0																					
25	Diseases of the heart	278	131	103	3	1	1																
26	Other diseases of the circulatory system	20	10	10																			
27	Bronchitis and emphysema	2	2																				
28	Other diseases of the respiratory system	4	3	1	1	4																	
29	Diarrhea and enteritis	2	2																				
30	Appendicitis, liver and biliary passages	2	2																				
31	Dysentery	2	2																				
32	Other diseases of the digestive system	20	15	6																			
33	Nephritis	51	20	20	1																		
34	Other diseases of the urinary and genital	4	2	1	1																		
35	Puerperal infection	1		1																			
36	Other diseases of pregnancy, childbirth, and	2		2																			
37	Diseases of the skin, cellular tissue, bones, and	1	1																				
38	Congenital malformations and debility, premenstrual conditions, and diseases peculiar to the first	41	27	12																			
39	Year of life and diseases peculiar to the first																						
40	Senility, old age	6	7	1																			
41	Automobile accidents	7																					
42	Automobile accidents (all motor-driven road	4	6																				
43	Automobile accidents (all motor-driven road	7																					
44	Causes of death ill-defined, unknown, or unspecified	21	18	8																			

1946 Census, Population, 76,198.

Total Resident Deaths, 763.

Rate per 1,000 Population, 9.8.

TABULATION OF DEATHS IN HOBOKEN FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods											50 and Over	Unknown						
		All Deaths		Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69			70 to 79	80 to 89				
		Male	Female																					
1	ALL CAUSES	685	422	290	4	2	86	41	6	4	4	4	4	4	13	34	20	45	131	189	137	85	0	
2	Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Plague	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Tuberculosis of the respiratory system	41	31	8	2	2	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	All other forms of tuberculosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Salmonella	10	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Shigella	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Infantra	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Typhus fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Other infections or parasitic diseases	68	47	42	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Cancer and other malignant tumors	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Malignant tumors or tumors of unspecified nature	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Chronic rheumatism and gout	25	10	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Diabetes mellitus	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Arteriosclerosis	7	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	All other diseases, diseases of the blood, and chronic poisonings	7	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Alcoholism	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Meningitis (meningococcal) and diseases of the meninges	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Intracranial lesions of vascular origin	40	28	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

23 Other diseases of the nervous system and sense organs
 24 Diseases of the heart
 25 Other diseases of the circulatory system
 26 Pneumonia and bronchopneumonia
 27 Other diseases of the respiratory system
 28 Diphtheria and antitoxin
 29 Typhoid fever
 30 Other diseases of the liver and biliary passages
 31 Other diseases of the digestive system
 32 Other diseases of the genitourinary and genital systems
 33 Eruptive infections
 34 Other diseases of pregnancy, childbirth, and the puerperium
 35 Diseases of the skin, cellular tissue, bones, and organs of movement
 36 Causes of death immediately following birth and diseases peculiar to the first year of life
 37 Senility, old age
 38 Suicide
 39 Homicide
 40 Automobile accidents (all motor-driven road vehicles)
 41 Other accidents, deaths (including homicides, and automobile accidents excepted)
 42 Causes of death ill-defined, unknown, or unspecified

6	8	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
209	157	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	5	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	14	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	11	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	9	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	11	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	19	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	25	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1940 Census Population, 50,115.

Total Resident Death, 685.

Rate per 1,000 Population, 13.7.

TABULATION OF DEATHS IN JERSEY CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Cause of Death	White		Colored		Age Periods										90 and Over	Unknown			
	All Deaths																		
	Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59			60 to 69	70 to 79	80 to 89
ALL CAUSES	1779	1513	107	103	145	179	14	14	24	80	194	138	195	687	899	779	887	81	
Typhoid and paratyphoid fever	1	1	1	1															
Sague fever	1	1																	
Whooping cough	1	1																	
Diphtheria	1	1																	
Disorders of the respiratory system	186	128	89	14	8	24	60	16	25	84	26	7	1	1	1	1	1	1	1
Tuberculosis of the tubercular system	18	4	4	2	1	1	1	2	1	2	1	2	1	1	1	1	1	1	1
Malaria	17	9	2	4	2	1	1	2	1	3	1	3	1	1	1	1	1	1	1
Syphilis	6	4	2	2															
Influenza	11	6	4	2															
Measles	12	9	6	3															
Typhus fever	17	9	6	3															
Typhus fever on parasitic disease	13	9	6	3															
Other parasitic diseases	4	2	1	1															
Cause and nature unspecified	642	272	240	18	17	2	1	2	1	2	2	2	2	1	1	1	1	1	1
Nonmalignant tumors or tumors of unspecified nature	14	1	13	1															
Sarcoma	1	1	1	1															
Diabetes mellitus and gout	3	2	3	1															
Diabetes mellitus	9	5	5	1															
Chronic or acute alcoholism	9	5	5	1															
Arteriosclerosis, other general diseases, diseases of the heart and blood vessels	30	10	17	8	1	1	1	1	1	3	4	3	7	2	2	2	2	2	2
Meningitis (nonbacterial) and diseases of the spinal cord	5	4	1	1															
Paraneural lesions of vascular origin	267	96	188	1	9	1	1	1	1	2	6	6	10	64	77	67	82	2	2

Abridged International Cause of Death	White		Colored		Age Periods										90 and Over	Unknown			
	All Deaths																		
	Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59			60 to 69	70 to 79	80 to 89
ALL CAUSES	10	14	3	1	2	2	1	1	1	4	7	2	2	3	2	2	2	1	1
Other diseases of the nervous system and sense organs	182	16	86	8	2	2	1	1	1	3	13	4	7	11	28	35	39	10	8
Epilepsy	4	1	3	1															
Other diseases of the circulatory system	102	78	62	4	22	29	5	8	3	9	9	7	7	20	26	35	5	8	
Pneumonia and bronchopneumonia	11	2	7	1	4	6	1	1	1	1	1	2	1	4	1	4	1	1	
Disorders of the respiratory system	39	11	27	1	4	6	1	1	1	2	1	1	1	1	1	1	1	1	
Diarrhea and enteritis	9	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Appendicitis	9	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Diseases of the liver and biliary passages	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Diseases of the digestive system	53	28	27	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Nephritis	154	64	83	2	6	7	1	1	1	7	10	7	8	17	35	32	19	1	
Other diseases of the urinary and genital systems	23	17	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Erysipelas	4	2	2	1															
Other diseases of pregnancy, childbirth, and the puerperium	2	2																	
Diseases of the skin, cellular tissue, bones, and joints	1	1																	
Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	116	54	51	6	113	116	1	1	1	1	1	1	1	2	2	2	2	6	1
Suicide	17	15	2	1	1	1	1	1	1	2	4	6	1	1	1	1	1	1	1
Suicide of old age	1	1																	
Suicide of infancy	1	1																	
Homicide	34	28	6	2	1	4	2	1	4	4	5	2	4	6	4	6	4	1	1
Accidents (all motor-driven road vehicles)	172	91	89	9	8	8	2	6	8	4	10	6	6	23	35	42	28	1	1
Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	4	3	1	1										2	2	2	2	1	1
Death ill-defined, unknown, or unspecified																			

Total Resident Deaths, 8,601.

Rate per 1,000 Population, 11.6.

1946 Census Population, 361,778.

TABULATION OF DEATHS IN UNION CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods															
		White		Female		Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
		Male	Female	Male	Female	23	23	3	1	1	1	1	1	1	1	1	1	1	1		
																					807	807
1	ALL CAUSES	964	837	807	807																
2	Typhoid and paratyphoid fevers																				
3	Plague																				
4	Scarlet fever																				
5	Whooping cough																				
6	Diphtheria																				
7	Tuberculosis of the respiratory system	22	14	8	8																
8	All other forms of tuberculosis																				
9	Syphilis																				
10	Infuenza	4	6	1	1																
11	Measles	1	1	1	1																
12	Mumps	1	1	1	1																
13	Typhus fever																				
14	Other infectious or parasitic diseases	4	4	4	4																
15	Other and other malignant tumors	117	69	48	48																
16	Neuritis																				
17	Chronic rheumatism and gout																				
18	Chronic sinusitis	5	2	2	2																
19	Chronic otitis media	21	4	17	17																
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	1	1	1	1																
21	Malnutrition (malnourished) and diseases of the spinal cord (meningoceles) and diseases of the intracranial lesions of vascular origin	12	4	8	8																
22	Intracranial lesions of vascular origin	41	17	24	24																

23 Other diseases of the nervous system and sense organs of the heart

24 Diseases of the heart

25 Other diseases of the circulatory system

26 Bronchitis

27 Other diseases of the respiratory system

28 Diarrhea and enteritis

29 Appendicitis, the liver and biliary passages

30 Other diseases of the digestive system

31 Nephritis

32 Other diseases of the urinary and genital systems

33 Personal infection

34 Other diseases of pregnancy, childbirth, and puerperium

35 Diseases of the skin, cellular tissue, bones and cartilages

36 Congenital malformations and debility, prematurity, and diseases peculiar to the first year of life

37 Health of age

38 Suicide

39 Automobile accidents (all motor-vehicles, road vehicles)

40 Other violent or accidental deaths (suicide, homicide, death by lightning, suffocation, drowning, etc.)

41 Causes of death ill-defined, unknown, or unspecified

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1940 Census Population, 56,175.

Total Resident Deaths, 664.

Rate per 1,000 Population, 11.8.

TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1944, ACCORDING TO THE ABBRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abbr'd Internat'l List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
										1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19
1	ALL CAUSES	602	271	247	7	7	14	16	8	1	4	8	10	11	18	32	111	181	99	10	.....
2	Diphtheria and paratyphoid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	All other forms of the respiratory system	11	8	1	2	2	1	2	1	1	1	2	1	1	2	1	1	1	1	1	1	
7	All other forms of tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Infants	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Infants	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic disease	69	31	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	8	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Nonmalignant tumors or tumors of unspecified	14	4	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Diabetes or acute alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Diabetes or acute alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Of the blood, and chronic poisonings, diseases	8	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	of the blood, and chronic poisonings, diseases of the spinal cord	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Intra-cranial lesions of vascular origin	57	18	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23	Other diseases of the nervous system and sense organs	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	188	124	61	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diseases of the circulatory system	12	7	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Bronchitis and bronchopneumonia	22	11	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Other diseases of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Other diseases of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Diseases of the liver and biliary passages	18	5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other diseases of the digestive system	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the digestive system	82	15	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Non-purulent infection	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	of the purpurium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Organs of movement and ability	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Organs of movement and ability	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Year of life	9	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Sex, race, and age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Sex, race, and age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Motor-vehicle accidents (all motor-driven road	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	11	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
45	Causes of death ill-defined, unknown, or unspecified	12	7	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 84,245.

Total Resident Deaths, 503.

Rate per 1,000 Population, 14.7.

TABULATION OF DEATHS IN MERCEUR COUNTY FOR 1944, ACCORDING TO THE Abridged INTERNATIONAL LIST OF CAUSES OF DEATH

CAUSE OF DEATH	All Deaths	White		Colored		Age Periods															
		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
ALL CAUSES	2009	1137	874	97	97	97	134	184	16	11	21	57	105	64	110	412	552	522	264	37	.....
1 Typhoid and paratyphoid fever	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 Tuberculosis of the respiratory system	92	42	24	17	2	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7 All other forms of tuberculosis	4	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8 Syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9 Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 Influenza	6	3	1	0	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11 Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 Trichinosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 Other infectious or parasitic diseases	24	11	10	1	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 Cancer and other malignant tumors	282	146	128	12	6	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 Malignant tumors of tumors of unspecified nature	8	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 Chronic pneumonia and emphysema	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 Diabetes mellitus	74	18	83	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 Arteriosclerosis	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 Arteriosclerosis, coronary disease, diseases of the blood, and chronic poisonings	84	18	11	1	4	5	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 Meningitis (meningococcal) and diseases of meninges	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 Intracranial lesions of vascular origin	229	81	131	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23 Other diseases of the nervous system and sense organs of the head	11	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24 Disease of the heart	570	463	24	11	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25 Other diseases of the circulatory system	8	34	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26 Bronchitis and bronchopneumonia	70	25	38	6	8	17	20	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27 Other diseases of the respiratory system	17	8	8	1	1	13	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28 Diphtheria and enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29 Appendicitis	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30 Other diseases of the digestive system	40	18	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31 Other diseases of the digestive system	20	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32 Nephritis	116	47	52	6	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33 Other diseases of the urinary and genital systems	15	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34 Erythral infection	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35 Other diseases of pregnancy, childbirth, and the puerperium	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36 Injuries, poisoning, and violence	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37 Injuries, poisoning, and violence, non-specified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38 Congenital malformations and debility, premature of life, and diseases peculiar to the first year of life	89	42	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39 Senility, old age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40 Suicide	81	20	11	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41 Accidents (all motor-vehicles, road vehicles)	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42 Automobile accidents (all motor-vehicles, road vehicles)	22	14	5	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43 Other violent or accidental deaths (suicide, homicide, and other accidents excepted)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44 Causes of death ill-defined	82	48	84	5	2	6	1	5	2	4	7	6	3	7	12	14	13	8	.....	.....	.....
unspecified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 1944.

Total Resident Death, 2,906.

Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN TRENTON FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		Colored		Age Periods																				
		White		Male		Female		Under 1 Year		Under 5 Years		5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1448	ALL CAUSES	693	616	70	80	90	7	4	15	31	67	46	77	283	337	526	158	19								
1	Typhoid and paratyphoid fevers																									
2	Plague																									
3	Scarlet fever																									
4	Diphtheria																									
5	Whooping cough																									
6	Tuberculosis of the respiratory system	64	90	16	12	20																				
7	All other forms of tuberculosis																									
8	Scarletina																									
9	Staphylococcal infections																									
10	Influenza	5	2	1	4	1																				
11	Shingles																									
12	Typhus fever	6	6	8	1	1																				
13	Other infectious or parasitic diseases	176	84	78	9	4																				
14	Cancer and other malignant tumors																									
15	Any malignant tumors or tumors of unspecified nature																									
16	Chronic rheumatism and gout	8		2																						
17	Cholera	54	16	35	8	1																				
18	Cholera noncholera	6	6	5																						
19	Cholera infantum	6	6	5																						
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	27	13	9	1	4	6	5	1	1	8	1														
21	Measles, (nonmeningococcal) and diseases of unknown origin	4	6	5																						
22	Intracranial lesions of vascular origin	144	48	55	6	8																				

23	Other diseases of the nervous system and sense organs	10	2	6																						
24	Dementia	295	226	17	11	2																				
25	Other diseases of the circulatory system	2	2																							
26	Bronchitis	44	16	21	5	8	10	13	1	1	1	1	1	4	5	11	5	2								
27	Pneumonia and bronchopneumonia	8	18	5																						
28	Emphysema	3	18	5																						
29	Diarrhea and enteritis	2	2																							
30	Appendicitis	2	2																							
31	Diseases of the liver and biliary passages	26	14	14																						
32	Diseases of the digestive system	73	31	32	5	10																				
33	Nephritis																									
34	Other diseases of the urinary and genital systems	7	6	1	1	1																				
35	Protein infections	1																								
36	Other diseases of pregnancy, childbirth, and puerperium	1																								
37	Diseases of the skin, cellular tissue, bones, and organs of the eye	2	1																							
38	Congenital malformations and disability, premature birth, and diseases peculiar to the first year of life	1																								
39	Senility, old age	33	26	19	2	6	62	53																		
40	Accidents	17	11	6																						
41	Accidents (all motor-driven road vehicles)	11	6	2	2	1	1	1																		
42	Accidents (all other)	6																								
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	48	25	17	2	1	2	1	2	1	2	4	4	1	5	7	9	1								
44	Unspecified																									

1946 Census Population, 124,867.

Total Resident Deaths, 1,443.

Rate per 1,000 Population, 11.6.

TABULATION OF DEATHS IN MONROE COUNTY FOR 1945, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Cause of Death	All Deaths		White		Colored		Age Periods																		
	Male		Female		Male		Female		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 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
ALL CAUSES	2342	1061	939	112	110	102	124	8	15	11	64	57	62	107	381	459	611	389	90						
1 Typhoid and paratyphoid fever																									
2 Scarlet fever	1																								
3 Diphtheria																									
4 Whooping cough																									
5 Tuberculosis of the respiratory system	24	16	10	7	10						1	12	9	4	13	6	8	1							
6 Tuberculosis of other organs	4	1	2																						
7 All other forms of tuberculosis	16	5	3	3	6	1					2				4	5	1								
8 Malaria																									
9 Intestinal infestation																									
10 Infodinia																									
11 Smallpox																									
12 Measles																									
13 Rubella																									
14 Other infectious or parasitic diseases	20	10	8				9				4	5	4	10	57	98	104	84	1						
15 Cancer and other malignant tumors	821	478	416	10	21	1					1	1	1	1	2	2	2	1							
16 Nonmalignant tumors or tumors of unspecified	15	1	8	1	2						1				1										
17 Chronic inflammation and gout	47	14	26	6	2	1					1				2	10	13	13	6						
18 Diabetes mellitus	4																								
19 Chronic or acute alcoholism																									
20 Chronic or acute arsenical disease																									
21 Hemiplegia (nonmeningeococcal) and diseases of	29	8	16	2	9	2	1	2	1	2					6	8	8	1							
22 Meningitis (meningeococcal) and diseases of	4	3	1																						
23 Intracerebral lesions of vascular origin	197	71	108	3	19	1					1	1	1	6	24	40	68	60	6						

Abridged International
List Number

CAUSE OF DEATH

Age Periods

White
Colored

All Deaths

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 59	60 to 69	70 to 79	80 to 89	90 and Over
110	8	15	11	64	57	62	107	381	459	611	389	90		

22 Other diseases of the nervous system and sense

23 Diseases of the heart

24 Other diseases of the circulatory system

25 Bronchitis

26 Chronic or acute rheumatism

27 Other diseases of the musculoskeletal system

28 Disinfectant and enteritis

29 Appendicitis

30 Other diseases of the digestive system

31 Nephritis

32 Other diseases of the urinary and genital

33 Protoplasmic infection

34 Other diseases of pregnancy, childbirth, and

35 Diseases of the pericardium, cellular tissue, bones, and

36 Congenital malformations and debility, premature

37 Causes of life and diseases peculiar to the first

38 Senility, old age

39 Suicide

40 Other violent or accidental deaths (suicide,

41 Automobile accidents (all motor-vehicles and

42 Other violent or accidental deaths (suicide,

43 Causes of death in defined subgroups

44 Unspecified

22	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	414	326	90	83																							
24	17	27	8	4																							
25	8	1																									
26	13	24	1																								
27	2	1																									
28	2	1																									
29	2	5	1																								
30	50	32	13	4																							
31	189	62	85	7																							
32	11	8	2	1																							
33																											
34																											
35																											
36																											
37																											
38																											
39	74	35	28	5	5	72	74																				
40	27	18	8																								
41																											
42																											
43	31	25	3	2	1	2	2	4	4	1	1	2	5	3	6	8	6										
44	37	38	38	7	4	7	13	2	8	2	10	4	6	11	16	10	7										

Estimated Population, 172,064.

Total Resident Deaths, 9,242.

Rate per 1,000 Population, 13.0.

287

BUREAU OF VITAL STATISTICS

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1941, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	All Deaths	White		Colored		Age Periods															
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
																					808
1	ALL CAUSES	808	306	240	14	9	26	31	2	2	9	16	19	27	81	116	147	106	10	10	
1	Typhoid and paratyphoid fever	1	1	1																	
2	Dysentery	1	1	1																	
3	Shigellosis	1	1	1																	
4	Whooping cough	1	1	1																	
5	Diphtheria	1	1	1																	
6	Scarlet fever	1	1	1																	
7	Other diseases of the respiratory system	13	5	1	8	1	1	2	1	1	2	1	1	1	2	8	8				
8	All forms of influenza	1	1	1																	
9	Measles	1	1	1																	
10	Scarlet fever	1	1	1																	
11	Smallpox	1	1	1																	
12	Measles	1	1	1																	
13	Cyprus fever and other vesicular diseases	1	1	1																	
14	Scarlet fever	1	1	1																	
15	Other diseases of the circulatory system	84	42	42																	
16	Coronary artery disease	1	1	1																	
17	Other diseases of the heart	1	1	1																	
18	Nonmalignant tumors of tumor of unspecified nature	2	2	2																	
19	Diabetes mellitus	1	1	1																	
20	Chronic or acute alcoholism	2	2	2																	
21	Arteriosclerosis, other general diseases	7	3	5																	
22	Meningitis (nonmeningococcal) and diseases of the spinal cord	4	2	2																	
23	Intra-cranial lesions of vascular origin	70	38	28																	
24	Other diseases of the nervous system and sense organs of the brain	1	1	1																	
25	Other diseases of the circulatory system	1	1	1																	
26	Bronchitis	1	1	1																	
27	Pneumonia and bronchopneumonia	16	8	7	1	1	8	8	1	1	1	1	1	1	8	1	4	1	1	1	
28	Other diseases of the respiratory system	1	1	1																	
29	Diarrhea and enteritis	1	1	1																	
30	Appendicitis	1	1	1																	
31	Diseases of the liver and biliary passages	7	3	4																	
32	Diseases of the pancreas	1	1	1																	
33	Nephritis	40	20	20																	
34	Other diseases of the urinary and genital organs	1	1	1																	
35	Paternal infection	1	1	1																	
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1	1																	
37	Diseases of the endocrine glands, bones, and cartilages	1	1	1																	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	19	11	1	1	18	19														
39	Suicide, all ages	3	2	1																	
40	Suicide, all ages	3	2	1																	
41	Homicide	1	1	1																	
42	Accidents (all motor-driven road vehicles)	9	6	2	1	1	2														
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1	1	1																	
44	Unspecified	28	14	9			1	5	1	1	2	2	2	2	5	2	8	1			

Estimated Population, 87,668.

Total Resident Deaths, 968.

Rate per 1,000 Population, 13.4.

23	Other diseases of the nervous system and sense organs of the brain	4	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Other diseases of the circulatory system	200	12	77	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Bronchitis	1	1	1																
26	Pneumonia and bronchopneumonia	16	8	7	1	1	8	8	1	1	1	1	1	1	8	1	4	1	1	1
27	Other diseases of the respiratory system	1	1	1																
28	Diarrhea and enteritis	1	1	1																
29	Appendicitis	1	1	1																
30	Diseases of the liver and biliary passages	7	3	4																
31	Diseases of the pancreas	1	1	1																
32	Nephritis	40	20	20																
33	Other diseases of the urinary and genital organs	1	1	1																
34	Paternal infection	1	1	1																
35	Other diseases of pregnancy, childbirth, and the puerperium	1	1	1																
36	Diseases of the endocrine glands, bones, and cartilages	1	1	1																
37	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	19	11	1	1	18	19													
38	Suicide, all ages	3	2	1																
39	Suicide, all ages	3	2	1																
40	Homicide	1	1	1																
41	Accidents (all motor-driven road vehicles)	9	6	2	1	1	2													
42	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1	1	1																
43	Unspecified	28	14	9			1	5	1	1	2	2	2	2	5	2	8	1		
44	Unspecified	28	14	9			1	5	1	1	2	2	2	2	5	2	8	1		

TABULATION OF DEATHS IN PASADENA COUNTY FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods																
		All Deaths		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		Male	Female																			
1	ALL CAUSES	3817	1786	1488	87	41	164	198	20	18	21	74	110	106	194	892	766	798	877	58		
2	Typhoid and paratyphoid fevers																					
3	Flague fever																					
4	Whooping cough	2																				
5	Diphtheria																					
6	Anthrax	100	67	58	5	2	1	1														
7	Infectious of the respiratory system	1	1	1																		
8	Malaria	19	14	2	1	2	1	1														
9	Syphilis	1	1																			
10	Scrub typhus	9	8	6																		
11	Stomach cancer																					
12	Mesothelioma																					
13	Typhus fever																					
14	Other infectious diseases	534	288	241	1	8	6	9	0	3	1	5	14	14	42	127	186	138	250			
15	Other nonmalignant tumors																					
16	Nonmalignant tumors or tumors of unspecified nature	15	9	6																		
17	Cancer of the respiratory system	140	40	87	2	1																
18	Diabetes mellitus	21	20	1																		
19	Chronic or acute alcoholism	87	14	28	1	2	6	1	1	1	8	8	1	1	10	5	4	1				
20	Arythmias, other general diseases, and diseases of the heart	6	2	2																		
21	Menstritis (nonmenstruational) and diseases of the spinal cord	388	168	174	5	8																
22	Intraocular lesions of vascular origin																					
23	Other diseases of the nervous system and sense organs of the head	28	14	11																		
24	Diseases of the ear	181	72	68	2	1	1	1														
25	Diseases of the circulatory system	347	5	1																		
26	Bronchitis	108	68	47	6	1	2	16	22	1	4	1	1	1	2	1	1	1	1	1		
27	Pneumonia and bronchopneumonia	10	6	4	1																	
28	Other diseases of the respiratory system	12	6	6																		
29	Diphtheria	10	6	4	1																	
30	Appendicitis	10	6	6																		
31	Diseases of the liver and biliary passages	68	27	28	2	3	5	7														
32	Diseases of the digestive system	176	76	88	4	8	8	5	1													
33	Nephritis	176	76	88	4	8	8	5	1													
34	Other diseases of the urinary and genital systems	28	20	7																		
35	Systemic sclerosis																					
36	Other diseases of pregnancy, childbirth, and the puerperium	2																				
37	Diseases of the skin, cellular tissue, bones, and joints	4	2	1																		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	132	72	83	6	2	128	181	1													
39	Scalds or burns	7	10																			
40	Suicide	41	28	18	1	2	1	1														
41	Accidents	10	4	4																		
42	Motor-vehicle accidents (all motor-vehicle road accidents)	87	28	7	2	2	2	2	2	2	8	8	2	2	8	7	9	8	8			
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	107	68	40	4	1	4	2	1	4	2	1	2	8	4	5	7	9	18	21		
44	Choked death, ill-defined, unknown, or unspecified	4	4																			

Estimated Population, 288,628.

Total Resident Deaths, 5,817.

Rate per 1,000 Population, 11.8.

23	Other diseases of the nervous system and sense organs of the head	28	14	11																	
24	Diseases of the ear	181	72	68	2	1	1	1													
25	Diseases of the circulatory system	347	5	1																	
26	Bronchitis	108	68	47	6	1	2	16	22	1	4	1	1	1	2	1	1	1	1	1	
27	Pneumonia and bronchopneumonia	10	6	4	1																
28	Other diseases of the respiratory system	12	6	6																	
29	Diphtheria	10	6	4	1																
30	Appendicitis	10	6	6																	
31	Diseases of the liver and biliary passages	68	27	28	2	3	5	7													
32	Diseases of the digestive system	176	76	88	4	8	8	5	1												
33	Nephritis	176	76	88	4	8	8	5	1												
34	Other diseases of the urinary and genital systems	28	20	7																	
35	Systemic sclerosis																				
36	Other diseases of pregnancy, childbirth, and the puerperium	2																			
37	Diseases of the skin, cellular tissue, bones, and joints	4	2	1																	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	132	72	83	6	2	128	181	1												
39	Scalds or burns	7	10																		
40	Suicide	41	28	18	1	2	1	1													
41	Accidents	10	4	4																	
42	Motor-vehicle accidents (all motor-vehicle road accidents)	87	28	7	2	2	2	2	2	2	8	8	2	2	8	7	9	8	8		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	107	68	40	4	1	4	2	1	4	2	1	2	8	4	5	7	9	18	21	
44	Choked death, ill-defined, unknown, or unspecified	4	4																		

TABULATION OF DEATHS IN PASADENA CITY FOR 1944, ACCORDING TO THE ARRANGED INTERNATIONAL LIST OF CAUSES OF DEATH

Arranged International List Number	CAUSE OF DEATH	White		Colored		Age Periods																
		All Deaths		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
		Male	Female																			
1	ALL CAUSES	617	272	15	9	81	86	8	4	6	13	27	29	29	85	118	146	122	95	16		
2	Typhoid and paratyphoid fever																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria																					
6	All other forms of infectious system	22	7			1	1				8	5	1	2	6	8	8					
7	Malaria																					
8	Infantile	3	1			1	1															
9	Smallpox																					
10	Measles																					
11	Scarlet fever																					
12	Whooping cough																					
13	Diphtheria																					
14	All other infectious or parasitic diseases	15	6			4	4				1	1	1	1	1	1	1	1	1	1		
15	Cancer and other malignant tumors	90	48	39	1						1	1	1	1	1	1	1	1	1	1		
16	Nonmalignant tumors of tumors of unspecified	2	2																			
17	Chronic bronchitis and emphysema	23	7	16																		
18	Diabetes mellitus	1																				
19	Chronic or acute alcoholism	7	6	1																		
20	Other diseases of the circulatory system	6	4	2		1	2			1	1	1	1	1	1	1	1	1	1	1		
21	Meningitis (meningococcal) and diseases of the spinal cord	1	1							1	1	1	1	1	1	1	1	1	1	1		
22	Intra-cranial lesions of vascular origin	35	25	2		27	2			1	1	1	1	1	1	1	1	1	1	1		

23	Other diseases of the nervous system and sense organs	3	9	7	4					1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	208	108	86	8															
25	Other diseases of the circulatory system	19	6	12	1															
26	Pneumonia and bronchopneumonia	23	9	14	2															
27	Other diseases of the respiratory system	4	3	1		1	1													
28	Diarrhea and enteritis	7	6	1																
29	Diseases of the liver and biliary system	11	7	11																
30	Other diseases of the digestive system	30	18	14	2					1	2	2	1	1	1	1	1	1	1	1
31	Other diseases of the urinary and genital systems	8	7	1																
32	Puerperal infection																			
33	Other diseases of pregnancy, childbirth, and puerperium	1																		
34	Diseases of the skin, cellular tissue, bones, and joints																			
35	Compensated senility and debility, premortem																			
36	Senility, old age	22	11	9	2	29	23													
37	Accidents (all motor-driven road vehicles) and accidental deaths (excluding homicide and automobile accidents excepted)	12	7	5	1															
38	Causes of death ill-defined, unknown, or unspecified	18	7	4	2	1														

1940 Census Population, 61,894.

Total Resident Deaths, 617.

Rate per 1,000 Population, 10.0.

TABULATION OF DEATHS IN SALEM COUNTY FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
	Abridged International List Number	Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1 Typhoid and paratyphoid fevers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2 Scarlet fever	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Whooping cough	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4 Diphtheria	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5 All other forms of the respiratory system	5	10	8	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 All other forms of the respiratory system	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7 Influenza	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8 Measles	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 Smallpox	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 Tuberculosis of the respiratory system	10	10	8	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 Tuberculosis of the respiratory system	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 Tuberculosis of the respiratory system	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Tuberculosis of the respiratory system	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Tuberculosis of the respiratory system	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15 Cancer and other malignant diseases	15	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16 Nonmalignant tumors or tumors of unspecified character	16	35	29	24	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
17 Chronic rheumatism and gout	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 Diabetes mellitus and gout	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19 Chronic or acute alcoholism	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20 All other general diseases, diseases of the blood, and diseases of the nervous system	20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21 Meningitis (nonbacterial) and diseases of the spinal cord	21	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22 Intracranial lesions of vascular origin	22	40	1	10	19	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

23 Other diseases of the nervous system and sense organs	23	6	2	8	1	6	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24 Diseases of the heart	24	185	87	54	6	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25 Other diseases of the circulatory system	25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26 Diseases of the circulatory system	26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27 Pneumonia and bronchopneumonia	27	23	12	8	1	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28 Other diseases of the respiratory system	28	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29 Disinfectants and enteritis	29	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30 Diseases of the liver and biliary passages	30	6	5	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31 Other diseases of the digestive system	31	22	9	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32 Septic diseases of the urinary and genital systems	32	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33 Other diseases of the urinary and genital systems	33	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34 Other diseases of the urinary and genital systems	34	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35 Puerperal infection, eclampsia, and other diseases of pregnancy, childbirth, and the puerperium	35	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36 Diseases of the skin, cellular tissue, bones, and organs of movement and mobility, scars, and other diseases of the integument	36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37 Diseases of the skin, cellular tissue, bones, and organs of movement and mobility, scars, and other diseases of the integument	37	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38 Complications of pregnancy, childbirth, and the puerperium	38	13	8	2	3	11	11	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39 Sexuality, old age	39	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40 Sexuality, old age	40	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41 Sexuality, old age	41	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42 Automobile accidents (all motor-driven road vehicles) and accidents with tricycles, mopeds, motorbikes, and automobiles (excepted) (homicide, and automobile accidents excepted)	42	11	7	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43 Homicide	43	24	12	9	3	2	3	1	2	4	1	8	1	4	1	8	4	8	1	1	1	1
44 Causes of death ill-defined, unknown, or unspecified	44	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Total Resident Deaths, 447. Rate per 1,000 Population, 10.5.

Estimated Population, 42,689.

TABULATION OF DEATHS IN SOMERSET COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
	Abridged International List Number	Male	Female	Male	Female	Male	Female	Age Periods													
								Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
ALL CAUSES	731	408	302	10	11	47	51	5	5	7	19	29	22	26	127	164	166	91	28	...	
1 Typhoid and paratyphoid fevers																					
2 Plague																					
3 Scarlet fever																					
4 Diphtheria																					
5 Erysipelas																					
6 Tuberculosis of the respiratory system	15	15	2																		
7 All other forms of tuberculosis	2																				
8 Syphilis																					
9 Influenza	1	1																			
10 Measles	1	1																			
11 Whooping cough																					
12 Mumps	1	1																			
13 Typhus fever																					
14 Other infectious or parasitic diseases	2																				
15 Neoplasms (all sites)	85	38	46	1	1										21	25	19	9	1		
16 Neoplasms of unknown or unspecified nature	1	1																			
17 Chronic inflammation and growths	1	1																			
18 Cancer or other neoplasms	19	8	11	1	1										3	6	6	1	1		
19 Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisonings	10	4	6												1	3	1	4			
20 Myocardial infarction (coronary thrombosis) and diseases of the vital organs (nephritis) and diseases of the central nervous system	10	4	6												1	3	1	4			
21 Intracranial lesions of vascular origin	71	28	43												11	26	19	7	1		
22 Other diseases of the nervous system and sense organs	6	6																			
23 Diseases of the heart and circulatory system	20	14	6												1	4	1	4			
24 Coronary atherosclerosis	2	1	1																		
25 Bronchitis	4	5	1																		
26 Pneumonia and bronchopneumonia	20	11	9	1	2	6									4	4	4	1	1		
27 Other acute respiratory system	4	1	3																		
28 Other chronic respiratory system	4	1	3																		
29 Tuberculosis of the respiratory system	1	1	2			8															
30 Appendicitis	1	1																			
31 Diseases of the liver and biliary passages	19	15	4																		
32 Diseases of the stomach and of the digestive system	19	15	4																		
33 Nephritis	20	21	18																		
34 Other diseases of the urinary and genital systems	15	9	6																		
35 Systemic sclerosis	1	1																			
36 Other diseases of pregnancy, childbirth, and the puerperium	1	1																			
37 Diseases of the skin, cellular tissue, bones, and joints	8	1	7																		
38 Other diseases of pregnancy, childbirth, and the puerperium	1	1																			
39 Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	84	23	61	2	33	54															
40 Suicide	10	7	3																		
41 Homicide	1	1																			
42 Automobile accidents (all motor-driven road vehicles)	10	18	8																		
43 Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	36	28	8	2	8	8	2	8	8	2	1	3	1	1	5	4	2	1			
44 Causes of death ill-defined, unknown, or unspecified	4	2	2																		

Estimated Population, 66,951.

Total Resident Deaths, 731.

Rate per 1,000 Population, 10.6.

CAUSE OF DEATH	Male	Female	Rate per 1,000 Population
24 Diseases of the heart and circulatory system	14	6	1.1
25 Coronary atherosclerosis	2	1	0.3
26 Pneumonia and bronchopneumonia	20	11	3.6
27 Other acute respiratory system	4	1	0.6
28 Other chronic respiratory system	4	1	0.6
29 Tuberculosis of the respiratory system	1	1	0.3
30 Appendicitis	1	1	0.3
31 Diseases of the liver and biliary passages	19	15	5.5
32 Diseases of the stomach and of the digestive system	19	15	5.5
33 Nephritis	20	21	6.0
34 Other diseases of the urinary and genital systems	15	9	4.4
35 Systemic sclerosis	1	1	0.3
36 Other diseases of pregnancy, childbirth, and the puerperium	1	1	0.3
37 Diseases of the skin, cellular tissue, bones, and joints	8	1	1.2
38 Other diseases of pregnancy, childbirth, and the puerperium	1	1	0.3
39 Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	84	23	12.5
40 Suicide	10	7	3.0
41 Homicide	1	1	0.3
42 Automobile accidents (all motor-driven road vehicles)	10	18	5.5
43 Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	36	28	5.4
44 Causes of death ill-defined, unknown, or unspecified	4	2	0.6

TABLETATION OF DEATHS IN SUSSEX COUNTY FOR 1945 ACCORDING TO THE ARRANGED INTERNATIONAL LIST OF CAUSES OF DEATH

Arranged International List Number	CAUSE OF DEATH	All Deaths		Whites		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
1	ALL CAUSES	880	288	140	1	19	20	4	1	7	8	16	11	11	46	78	81	70	9			
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Tuberculosis of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	All other forms of tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Indienna	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Necrotic tumors or tumors of unspecified nature	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Chronic meningitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chronic encephalitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Arteriosclerosis, other general diseases of the blood, and chronic poisonings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Measles, mumps, meningitis, and diseases of the central (meningeal) and peripheral (neuritic) nervous systems	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intracranial lesions of vascular origin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23	Other diseases of the nervous system and sense organs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diseases of the circulatory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Bronchitis and bronchopneumonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Other diseases of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Other diseases of the respiratory system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Diseases of the liver and biliary passages	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Diseases of the digestive system	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Nephritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of pregnancy, childbirth, and the puerperium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Diseases of the skin, cellular tissue, bones, and joints	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the eye	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and disease peculiar to the first year of life	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Self-inflicted injuries	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Accidental accidents (all motor-driven road vehicles)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Causes of death ill-defined, unknown, or unspecified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 82,288. Total Resident Deaths, 880. Rate per 1,000 Population, 11.8.

TABULATION OF DEATHS IN UNION COUNTY FOR 1945, 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		
1	ALL CAUSES	8327	1644	1469	122	122	190	225	16	13	21	56	139	108	170	612	769	683	886	82								
2	Typhoid and paratyphoid fevers																											
3	Scarlet fever																											
4	Diphtheria																											
5	Whooping cough																											
6	Whooping pertussis																											
7	All other forms of the respiratory system	139	51	87	17	18				2	27	20	13	14	23	15	7	1										
8	Tuberculosis of the respiratory system	139	51	87	17	18																						
9	Scrub typhus																											
10	Infantia	19	12	2	4	1																						
11	Smallpox	10	8	6	1	1																						
12	Measles																											
13	Typhus fever																											
14	Other infections or parasitic diseases	15	5	9	2	2																						
15	Cancer and other malignant tumors	807	241	286	11	13				1	1	1	2	3	1	2	2	2	2	2	2	2	2	2	2	2		
16	Neuroblastoma and sarcoma																											
17	Chronic rheumatism and gout	17	5	10	2	2				1	2	2	3	2	3	2	1	1	1	1	1	1	1	1	1	1		
18	Diabetes mellitus	102	62	65	1	4																						
19	Alcoholism	6	6																									
20	Arteriosclerosis and other circulatory diseases	38	15	21	1					2	6	4	1	2	8	4	4	4	4	4	4	4	4	4	4	4		
21	Measles (hemorrhagic) and diseases of the blood, and chronic poisonings	11	6	4						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
22	Intracranial lesions of vascular origin	284	121	154	10	9	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
23	Other diseases of the nervous system and sense organs	21	11	468	7	8	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
24	Diseases of the heart	1101	899	468	28	35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
25	Diseases of the circulatory system	81	39	51																								
26	Rheumatism and bronchopneumonia	140	69	61	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
27	Pneumonia and bronchopneumonia	17	8	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
28	Other diseases of the respiratory system	16	7	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
29	Other diseases of the respiratory system	16	7	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
30	Other diseases of the respiratory system	16	7	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
31	Diseases of the liver and biliary passages	51	27	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
32	Other diseases of the digestive system	55	42	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
33	Other diseases of the digestive system	137	78	69	9	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
34	Other diseases of the urinary and genital systems	29	29	6	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
35	Suppurative infection of the genitourinary system	7	7	3																								
36	Other diseases of the genitourinary system	7	7	3																								
37	Diseases of the skin, cellular tissue, bones, and joints	3	3	3																								
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	159	67	93	12	7	132	137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
39	Senility, old age	26	20	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
40	Suicide	2	1	1																								
41	Homicide	50	84	19	5	1	4	8	2	7	5	2	3	10	7	5	2	1	1	1	1	1	1	1	1	1		
42	Automobile accidents (all motor-driven road vehicles)	118	66	48	7	1	6	14	1	4	8	11	4	3	16	21	19	13	2	2	2	2	2	2	2	2		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)																											
44	Causes of death ill-defined, unknown, or unspecified	9	5	4																								

Estimated Population, 283,775.

Total Resident Deaths, 2,297.

Rate per 1,000 Population, 8.3.

TABULATION OF DEATHS IN ELIZABETH FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	All Deaths	White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
								1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17
1	1111	583	467	80	31	62	72	4	6	9	28	45	84	138	235	238	226	95	15	
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	All other forms of the respiratory system
9	All other forms of tuberculosis
10
11	Malaria
12
13
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25	ALL CAUSES
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1946 Census Population, 109,913.

Total Resident Deaths, 1,111.

Rate per 1,000 Population, 10.1.

TABULATION OF DEATHS IN WARREN COUNTY FOR 1944, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSES OF DEATH	All Deaths		White		Colored		Age Periods																
		Male	Female	Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
1	ALL CAUSES	623	279	7	2																			
1	Typhoid and paratyphoid fevers	1																						
2	Plague																							
3	Scarlet fever																							
4	Diphtheria																							
5	Diphtheria, cough	10																						
6	Tuberculosis of the respiratory system	2	7	1																				
7	All other forms of tuberculosis	2	1	1																				
8	Whooping cough																							
9	Syphilis	4	5	3																				
10	Influenza																							
11	Measles																							
12	Scarlet fever																							
13	Typhus fever																							
14	Other infections of parasitic disease	7	3	4																				
15	Cancer and other malignant tumors	64	26	86	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
16	Natural causes of death of unspecified nature	2		2																				
17	Chronic rheumatism and gout	2																						
18	Chronic alcoholism	19	5	14																				
19	Chronic or acute alcoholism																							
20	Arteriosclerosis, other general diseases, diseases of the blood, and chronic poisoning	7	5	2																				
21	Malnutrition (malnourishment), and diseases of the spinal cord	1	1	1																				
22	Intracranial lesions of vascular origin	67	32	33	1	1																		

23	Other diseases of the nervous system and sense organs	5	4	1																				
24	Diseases of the heart	292	134	92																				
25	Diseases of the circulatory system	16	11	5																				
26	Bronchitis	2	2																					
27	Pneumonia and bronchopneumonia	25	12	13																				
28	Diseases of the respiratory system	4	2	2																				
29	Diarrhea and enteritis	2	2																					
30	Appendicitis	4	2	2																				
31	Diseases of the liver and biliary passages	16	9	5																				
32	Diseases of the digestive system	14	6	8																				
33	Nephritis	38	13	20																				
34	Other diseases of the urinary and genital systems	10	8	2																				
35	Varicella infection																							
36	Other diseases of pregnancy, childbirth, and the puerperium	2																						
37	Diseases of the skin, cellular tissue, bones, and joints	4	3	1																				
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	12	5	7																				
39	Scabies																							
40	Sadistic	10	9	1																				
41	Homicide	1	1																					
42	Accidents (all motor-driven road vehicles)	10	6	2																				
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	36	21	15																				
44	Unspecified																							

Estimated Population, 48,587.

Total Resident Deaths, 623.

Rate per 1,000 Population, 12.8.

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