

SIXTY-FOURTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1941



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of the State of New Jersey, 1941

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Department of Health of the State of New Jersey

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

EDMUND R. OUTCALT, *Deputy Secretary*

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

STATE OF NEW JERSEY,

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1941.

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, 1941.

CLYDE POTTS, C. E.,

President,

State Department of Health.

STATE OF NEW JERSEY.

DEPARTMENT OF HEALTH,

TRENTON, N. J., August 16, 1941.

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, 1941. The reports of the Bureau Chiefs will give comprehensive accounts of the activities of the eight Bureaus and other sub-divisions 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.

Activities relating to national defense in New Jersey influenced both the plans of the Department and its use of funds and personnel during the year which ended June 30, 1941. The services rendered to this end may be grouped under four headings.

1. Those in connection with Selective Service personnel.
2. Activities in extra cantonment areas.
3. Cooperation with the State Defense Council.
4. Services to maintain good health in the population generally.

The services dealing directly with the selective service group consisted principally of an individual follow-up effort to place under treatment all young men excluded from induction into the army because of venereal diseases.

By mail or visitation, 911 who gave positive blood tests for syphilis and 429 who had doubtful tests (from the first 60,897 tested) were followed up to insure treatment by private physicians or at clinics. Contact-tracing interviews were also conducted at the Induction Board with each person rejected because of a venereal disease.

REGIONAL HEALTH DEPARTMENT FORMED

Services rendered in extra cantonment areas included the creation of a regional health department operating in the municipalities close to Fort Dix. The staff, supplied from Department personnel and augmented toward the end of the year by representatives of the Public Health Service, provided for seven local boards of health a well-rounded administration of communicable disease control, sanitary inspection service and public health education. In this same area intensive effort was also made to reduce prostitution and promiscuity.

The Department cooperated with the Committee on Health, Welfare and Recreation of the State Defense Council by supplying information pertinent to plans for public health preservation and by preparing a suggested program for integrating the services of health departments into a State-wide defense effort.

As an industrial State, New Jersey attracted defense contracts in large volume, with resulting increase in industrial employees. More or less crowding, in spite of housing developments, is sure to occur at such a time. Increased payrolls promote increased travel, and increased patronage at public eating and amusement places. Influx of new families affects susceptibility to disease and may introduce infection. All these conditions resulting from defense production require more intensive application of proved measures of protecting the public health. Both this Department and many local boards of health have endeavored during the year to counteract such potential dangers with better public health administration.

Inasmuch as the same principles of health protection and promotion apply in times of peace and war and most of these have long been applied in New Jersey, no radical programs had to be instituted. However, one conspicuous gap still exists in our public health effort, that of an inadequate industrial hygiene program. With the cooperation of the United States Public Health Service which assigned industrial hygienists to the Department in the summer of 1941, a beginning has now been made to close this gap.

OLD PROBLEMS CONTINUE

Previous annual reports have dealt with certain vexing problems which have been attacked year after year but are still with us. One of these is the migratory worker, particularly in agricultural and shell fish harvesting areas. Housing, sanitation and venereal disease prevalence among them have previously been investigated and reported upon.

Being seasonal workers and non-residents, ordinary means of dealing with migrants are not successful. Fortunately, employers of such labor are now interested and are cooperating in seeking a solution to this problem.

Periodically, expansion of the Department's work, due to new legal and social demands, causes a need for larger quarters. A year ago this need was stressed, particularly that of relieving our crowded laboratories. The same two small rooms in which blood tests have been made for many years are still used for this work without additional space although the nation-wide crusade against syphilis, the State premarital and prenatal blood testing laws and the Selective Service program have increased the number of blood tests from 54,000 in 1936 to over 250,000 annually.

Offices designed for two persons are being used for five or six and hallways without outside lighting or ventilation are used as office space for fulltime workers. Rental of quarters in downtown office buildings is a constant drain upon a limited budget, but more than this, the separa-

tion of closely allied branches of service has impaired working efficiency and engendered loss of time. This condition should be corrected at the earliest opportunity.

What might be called automatic health protection has been carried far in New Jersey and its results are manifest in safe water supplies, safe milk, safe foods including shellfish, safe sewage disposal, protection of bathing beaches, and many other sanitary safeguards throughout the State. By these means, the public is protected against certain diseases and unhealthful conditions even though it may be unmindful of the dangers or unwilling to exert itself to avoid them.

HEALTH EDUCATION BEARS FRUIT

We are probably approaching the limits of this method of insuring good health. Recent dramatic progress in diphtheria control, the reduction of tuberculosis, the saving of infants and mothers, better diet for children and similar gains in public health have each demanded cooperation by the individual and often a positive effort to obtain the benefits offered. It is evident that when the method is made clear and results can be assured, many persons are ready to make the necessary effort. Public health education, to be effective, should make the method clear, and induce the individual to try to obtain the benefits.

Thus education is playing a larger and larger part in public health endeavors. The Department made considerable progress during the year in improving its own public health education program. Numerous additional exhibits, flashers and motion picture films were put into use. Such equipment is loaned to boards of health for local use. A health education service unit was organized and an editorial advisory board appointed to strengthen and unify this program. A considerable part of the effort of several branches of the Department is devoted to public health education, as a means of arousing interest, creating favorable attitudes and promoting desired action. Besides these specialized educational efforts, the Department conducts a generalized health promotion program and, in cooperation with Rutgers University, provides courses in public health administration for employees of health departments and other health agencies.

YEAR'S RECORD IMPRESSIVE

So extensive has the Department's program and personnel become in the last few years that it is no longer practicable to review at length the work of the various bureaus and divisions in this report. The reader is referred to statements of the sub-division heads for information as to work

accomplished, problems still under attack and the expenditure of funds provided by the State and Federal Governments for public health promotion in New Jersey.

Suffice it to say that freedom from epidemics, new low records for diphtheria, pneumonia, tuberculosis and typhoid fever, continued low maternal and infant mortality rates and marked improvement in rural school water supplies are among the achievements of the year. Rabies continued in the north east counties but with fewer canine cases than in recent years. Enactment of a new dog control law making licensing uniform through the State and providing local and State funds for rabies control fills a long felt need in New Jersey.

Dental and negro health units began to function in fields where need is great.

Cleanup of our rivers continued with particular attention being directed to the Delaware watershed. Sanitation of the cider industry was undertaken. A check for marriage registration was finished and the completeness of reporting found to be better than 99 percent.

Cooperation with local boards of health and unofficial health agencies continued under the cordial relationship of previous years.

Coordination of the Department's program with Federal public health policies was furthered by the addition to the Department's staff of various specialists, assigned to New Jersey to aid in National Defense.

I feel confident that the program of the Department, supported by necessary appropriations and carried on by the competent staff which has been assembled over many years, will prove adequate to the emergency requirements which lie ahead.

Report of Bureau of Administration

For the Year Ending June 30, 1941.

EDMUND R. OUTCALT, *Chief*

At the meeting of the State Department of Health held on July 9, 1940, Clyde Potts, C. E., was re-elected President, and Joseph N. Fowler, was elected Vice-President, for the fiscal year ending June 30, 1941.

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

Advisory Committee to the Director: Mr. Potts, Dr. Collier, Dr. Smillie and Mr. Fowler.

Budget Committee: Miss MacNaughton, Dr. Guthrie, Dr. Lee, Dr. Fischelis and Dr. Smillie.

Legislative Committee: Dr. Alexander, Dr. Lee, Mr. Fowler and Dr. Fischelis.

Committee on Organization: Miss MacNaughton, Mrs. Rockafeller, Dr. Fischelis, Dr. Lee, Dr. Guthrie and Dr. Collier.

Dental Committee: Dr. Guthrie, Dr. Lee and Dr. Alexander.

Nursing Committee: Mrs. Rockafeller, Miss MacNaughton and Dr. Alexander.

Rabies Committee: Dr. Smillie, Dr. Fischelis and Dr. Lee.

Committee on Medical Care of the Medically Indigent: Dr. Lee, Dr. Alexander, Dr. Collier and Dr. Fischelis.

Committee on Salaries of Medical Personnel: Dr. Lee, Dr. Collier, Dr. Pierce and Director.

Milk Committee: Dr. Smillie, Dr. Lee and Mr. Bishop.

Pneumonia Committee: Dr. Smillie, Dr. Lee, Mr. MacDonald and Director.

On September 10, 1940, the following Board members were appointed to serve as Consultants to certain activities of the Department, as follows:

Bureau of Local Health Administration: Dr. Collier.
Bureau of Food and Drugs: Drugs—Dr. Fischelis; Milk—Mr. Bishop.
Sanitary Shellfish Control: Mr. Fowler.
Bureau of Maternal and Child Health: Miss MacNaughton.
Division of Venereal Disease Control: Dr. Lee.
Milk Sanitation: Dr. Smillie.
Negro Health Program: Dr. Alexander.
Education and Publicity: Dr. Fischelis.
Bureau of Engineering: Mr. Bishop.

The following regulation regarding political activities of employees of the Department was adopted at the meeting held on July 9, 1940:

Regulation. Participation of any full time employee or any part time employee who is engaged in the performance of administrative duties of the Department of Health of the State of New Jersey, excepting the executive officer of the Department, in political activity is hereby prohibited, except that any employee has the right to express his views as an individual citizen and to cast his vote. Employees of the Department of Health of the State of New Jersey, while retaining the right to vote and to express privately their opinions on political subjects are forbidden to take an active part in political management or in political campaigns. Political activity of such employees of the Department in city, county, state or national elections, whether primary or regular, in behalf of any party or candidate is prohibited and they are not permitted to solicit or receive or be concerned in soliciting or receiving any money or contribution for political purposes. No officer or employee of the Department shall be discharged or demoted for refusing to make any contributions for political purposes.

An agreement was made with the Civil Service Commission whereby unassembled examinations were held for professional employees in the unclassified service who had been employed by the Department for less than five years and regular written and oral examinations will be conducted for future appointments in the unclassified service.

The following resolution was adopted at the meeting held on May 13, 1941, (amended Feb. 10, 1942) in order to have the merit system of personnel administration of the Department conform with the requirements of the United States Children's Bureau and the United States Public Health Service:

WHEREAS, The Civil Service Commission of the State of New Jersey has agreed to conduct qualifying examinations for physicians and dentists who have been employed in the unclassified Civil Service for less than five years by the Department of Health of the State of New Jersey; and

WHEREAS, The said Commission has likewise agreed to conduct competitive examinations and furnish lists of eligibles of physicians and dentists before their appointment in the unclassified service by the Department of Health of the State of New Jersey; therefore

Be It Resolved, That all full time physicians and dentists now employed and those who may hereafter be employed by the Department of Health of the State of New Jersey, shall be subject to the same provisions of the Civil Service law and regulations as are personnel employed by the said Department in the classified service, the said requirements to be enforced by the Department of Health of the State of New Jersey.

At the meeting of the Department on October 4, 1940, the following qualifications for admission to licensing examinations conducted by the Board of Examiners of the New Jersey State Department of Health were adopted for a trial period from September 10, 1940 to November 1, 1941, replacing the qualifications previously in force.

ELIGIBILITY FOR HEALTH OFFICER'S EXAMINATION

- (1) Graduation from a recognized school of medicine, public health and sanitary science, or sanitary engineering, with *working experience in a local or state health department or some other public health organization or with special training and experience equivalent thereto.*
- (2) Graduation from a recognized college and *holder of a first class sanitary inspector's license and with at least two years' working experience in a local or state health department or some other public health organization or with special training and experience equivalent thereto.*
- (3) Holder of a license as *first class sanitary inspector* issued by the State Department of Health with at least three years' working experience in the employ of a local or state health department and in addition, is a graduate of the two-year summer course for health officers at Rutgers University or a graduate of an equivalent course in public health at some other recognized college or university.
- (4) Holder of a license as *first class sanitary inspector* issued by the State Department of Health with at least five years' working experience in the employ of a local or state health department.

ELIGIBILITY FOR INSPECTORS' EXAMINATIONS

SANITARY INSPECTOR—1st Class, MILK INSPECTOR, FOOD & DRUG INSPECTOR:

At least two years' training at a recognized college or university; or some combination of training and experience equal thereto.

SANITARY INSPECTOR—2nd and 3rd Class:

Graduation from a high school or other training and experience equal thereto.

LAY MEAT INSPECTOR:

Graduation from a high school; or other training and experience equal thereto.

VETERINARY MEAT INSPECTOR:

Graduation from a generally recognized school of Veterinary Medicine.

PLUMBING INSPECTOR:

Graduation from a high school or technical school with at least five years' working experience as a journeyman or master plumber; or eight years' working experience as a journeyman or master plumber. (To be appointed legally as plumbing inspector, the law requires that the candidate must be a practising plumber in the municipality in which he resides at the time of his appointment.)

BOARD OF EXAMINERS AND EXAMINATIONS
FOR HEALTH OFFICERS' AND INSPECTORS' LICENSES

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

At the meeting of the Department on March 11, 1941, Edwin H. Coward, M. D., Pleasantville; Patrick J. Monaghan, Newark; James J. Hagan, Jersey City, together with I. H. Shaw, V. M. D., Cecil K. Blanchard and John E. Bacon of the State Department of Health, were reappointed as members of the Board of Examiners of Health Officers and Inspectors for the ensuing year. The Board reorganized by the election of James J. Hagan as President and John E. Bacon as Secretary.

During the year there were filed with the Department 124 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, 13; Sanitary Inspector, First Class, 20; Sanitary Inspector, Second Class, 5; Sanitary Inspector, Third Class, 1; Food and Drug Inspector, 7; Lay Meat Inspector, 1; Milk Inspector, 1; Plumbing Inspector, 27.

ANNUAL CONFERENCE

The Thirty-First Annual Conference of State and Local Health Officials of New Jersey was held in the State House, Trenton, on February 7, 1941. The program of the Conference follows:

Morning Session, 10:30 A. M.

Question Bee for Registrars of Vital Statistics.	Walter R. Scott, State Registrar, presiding.
Proper Handling of Fees Collected by Local Health Officials.	Walter R. Darby, Commissioner, Department of Local Government.

Afternoon Session, 1:30 P. M.

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

A Message from GOVERNOR EDISON

Advances in Local Health Administration

Results of the Examination of Apparently Well Persons.	F. P. Lee, M.D., Health Officer, Paterson. M. J. Exner, M.D., Newark Health Department.
Activities of a New Board of Health.	J. H. Irwin, M.D., Health Officer, Palisade Interstate Park. Clyde R. Newell, District Health Officer, State Department of Health.
Rabies Control.	Cornelius Bowen, Health Officer, Westwood. Chas. A. Kientz, Sanitary Inspector, No. Arlington.
Regional Treatment Centers for Syphilis.	Robert S. Genduso, Health Officer, West New York. John E. Gilbert, Executive Officer, Burlington Twp.
Expansion of Local Health Activities.	Hugh B. Martin, Health Officer, Englewood. H. R. H. Nicholas, District Health Officer, State Department of Health.
Restaurant Sanitation.	Andrew J. Krog, Health Officer, Plainfield. L. Van D. Chandler, Health Officer, Hackensack.

Evening Session, 7:45 P. M.

DR. MAHAFFEY, presiding

Moving Pictures— Payment for Medical Care of Low Wage Groups on Insurance Basis.	Norman M. Scott, M.D., Medical Director, Medical Service Administration, Medical Society of New Jersey.
Plans for the American Public Health Association Convention, Atlantic City, October 14-17, 1941.	Carl E. Buck, Dr.P.H., Field Director, A. P. H. A. S. L. Salasin, M.D., Health Officer, Atlantic City.
Current Trends in Our National Public Health Program.	E. R. Coffey, M.D., Surgeon, U. S. Public Health Service.

WORK PROJECTS ADMINISTRATION HEALTH PROJECTS

Under the agreement made with the Federal Work Projects Administration in January, 1940, the Department approved the following projects during the fiscal year ending June 30, 1941, the approval indicating that they are desirable health services:

Newark Tuberculosis Project
 Jersey City Medical Center Project
 Elizabeth Dental Project (Continuation)
 Gloucester City Dental Project (Continuation)
 Newark Venereal Disease Project (Continuation)
 Passaic Nursing Project (Continuation)
 Paterson School Nursing Project (Continuation)

NATIONAL YOUTH ADMINISTRATION PROJECT

At the meeting of the Department on January 14, 1941, the National Youth Administration Health Project was approved. The Department agreed to co-sponsor the project and furnish such advisory service as may be available. The project is statewide and the objective is to provide employment for unemployed youth in clerical, research, professional, education and recreation activities related to health, including health service, health education, and physical development activities for youth employed by the National Youth Administration. Dr. Daniel Bergsma, Chief, Division of Venereal Disease Control, was appointed as State Health Consultant to the project.

LEGISLATION

The following legislation of interest to health officials was enacted by the Legislature during the year 1941:

S-96, Chapter 42, Driscoll. Forbids adulteration of ice cream with fats, oils or paraffin other than milk fats.

S-279, Chapter 234, Schroeder. Places under tenure operators of public water systems and sewage disposal plants after five years' service.

S-301, Chapter 278, Driscoll. Requires sale of ice cream and other frozen desserts in containers of certain specified capacities; fixes minimum weight for gallon containers; requires containers to be plainly marked with capacity and with manufacturer's identification.

S-335, Chapter 227, Wilensky. Permits cemetery associations situated in townships in other than first class counties to purchase, under certain circumstances, additional lands from township at public sale.

S-422, Chapter 354, Eastwood. Provides that couples already married to each other, desiring to be remarried to each other procure special remarriage license.

S-447, Chapter 362, Bowers. Validates incorporations and acts of rural cemetery associations where such associations have acquired lands in a county other than that where incorporation is recorded or other than in an adjoining county.

S-476, Chapter 392, Stanger. Appropriates \$10,000 to State Department of Health to maintain laboratories.

A-13, Chapter 219, Cavicchia. Permits county tuberculosis hospitals to examine public school pupils for tuberculosis, expense to be borne by school authorities.

A-124, Chapter 151, Boswell. Requires licensing of dogs by municipalities; requires that 25 cents of every license fee be given to the State Health Department for rabies prevention.

A-151, Chapter 61, Orben. Provides that cemetery plots go to heirs at law if holders die without making specific disposition of such plots.

A-184, Chapter 192, Hargrave. Creates commission to recommend measures to improve economic, cultural, health and living conditions of urban colored populations; appropriates \$16,000.

A-199, Chapter 63, Haneman. Permits State Bureau of Vital Statistics or municipal registrars of vital statistics to require proof of correctness of information in birth certificates.

A-202, Chapter 251, Haneman. Permits Department of Health to determine who may have access to original records of birth, marriages and death.

A-207, Chapter 252, Haneman. Permits appointment of local health officers as local registrars of vital statistics.

A-445, Chapter 274, Howell. Creates State Milk Control Board to regulate production, distribution and sale of milk and milk products.

A-493, Chapter 329, Lance. Appropriates \$12,000 to State Health Department for rural mobile dental demonstration program.

A-530, Chapter 332, Hess. Permits townships to exercise certain financial and other duties for whole township, including any separate political subdivisions within such township; provides referendum before act may be adopted by local governments.

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

S-108, Stanger. Requires sale of live poultry by weight and licensing of poultry dealers.

S-109, Stanger. Requires sale of meat by weight except poultry sold for breeding purposes.

S-122, Hollinshead. Requires marking of milk to show State in which produced and date of production.

S-133, *Driscoll*. Requires sale in containers marked with net quantities of commodities capable of being weighed, measured or counted.

S-250, *Proctor*. Permits municipalities to issue bonds to provide sewage disposal facilities and to enter contracts with Interstate Sanitation Commission for commission to serve as trustee for such bonds in any case where municipal sewage flows into waters under jurisdiction of Interstate Sanitation Commission.

S-286, *Proctor*. Permits Interstate Sanitation Commission to act as trustee of municipal sewerage bonds.

S-287, *Proctor*. Clarifies act governing operation of Interstate Sanitation Commission.

S-288, *Proctor*. Permits Interstate Sanitation Commission to obtain grants from Federal government and other sources.

S-289, *Proctor*. Supplements act governing operation of Interstate Sanitation Commission.

S-375, *Hendrickson*. Amends title of Chapter 24, Laws of 1938, authorizing purchase of and free distribution of pneumonia serum in certain cases.

S-379, *Hendrickson*. Corrects internal reference to Revised Statutes in Chapter 126, Laws of 1928, relating to marriages.

S-404, *Foran*. Regulates marking of milk and cream as to time of pasteurization.

S-405, *Pierson*. Converts Delaware and Raritan Canal into water supply; creates commission for development of Delaware and Raritan Canal; appropriates \$50,000.

S-444, *Hendrickson*. Forbids physical connections between approved public potable water supplies and unapproved supplies unless permit is obtained from State Health Department; regulates such connections.

A-9, *Cavicchia*. Forbids marriages between males under age of 18 and females under 16 with or without parental consent, except in certain cases.

A-21, *Mahr*. Requires eye and ear tests of public school pupils at least once each year.

A-37, *Hargrave*. Authorizes municipalities to impose annual license fee for each vehicle used in sale of milk, cream or foodstuffs; fixed maximum at \$2 per vehicle.

A-162, *Herbert*. Requires sale of bulk ice cream by weight.

A-263, *Stackhouse*. Permits remarriage of persons already married to each other; requires new license and reporting of remarriage.

A-284, *Leonard*. Provides regulation of manufacture and sale of bedding and upholstery under direction of State Commissioner of Labor.

A-367, *Ferster*. Permits marriages to be solemnized by Judges of Court of Errors and Appeals, District Court Judges and members of religions authorized by such religions to perform marriages.

A-402, *Hargrave*. Regulates venereal disease treatment, forbids persons other than licensed physicians to treat such ills, forbids persons other than licensed pharmacists to dispense remedies.

A-408, *Hargrave*. Forbids advertisement of remedies or places of treatment for venereal diseases or resultant ills.

A-454, *Young*. Provides appointment of State Milk Commissioner at \$8,000 a year to regulate the sale and distribution of milk and milk products.

A-472, *Williamson*. Forbids sale on public highways or in parks of articles or drugs for diagnosis, prevention or cure of diseases.

A-495, *Cavicchia*. Provides that Common Pleas Courts rule as to sufficiency of proof in recording of births.

A-516, *Haneman*. Requires sale of pasteurized milk and cream, except certified products, only by pasteurizer or his employes.

A-537, *Hargrave*. Repeals section 24:10-8 of the Revised Statutes concerning grading of milk.

A-554, *Herbert*. Provides that municipalities after notice to property owners may remove weeds, trees, filth, debris, etc., from vacant lands and charge the cost thereof against the property.

APPROPRIATIONS

During the fiscal year ending June 30, 1941, there was appropriated through State and Federal sources to the New Jersey State Health Department the sum of \$1,045,132.27.

The State Legislature appropriated \$488,226.14 and the following sums were received from the Federal government under the Social Security and Venereal Disease Control Acts:

Social Security Act, Title V (U. S. Children's Bureau)		
Allotment		\$88,169.51
Balance from 1940		20,840.32
Total		\$109,009.83
Social Security Act, Title VI (U. S. P. H. S.)		
Allotment		\$256,500.00
Balance from 1940		29,901.63
Total		\$286,401.63
Venereal Disease Control Act (U. S. P. H. S.)		
Allotment		\$152,500.00
Balance from 1940		8,994.62
Total		\$161,494.62
Total Federal Funds		\$556,906.13

DEPARTMENT OF HEALTH

STATEMENT OF REVENUE OF THE DEPARTMENT OF HEALTH OF THE STATE OF

NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941

Source	Amount
Analyses of Samples of Food & Water	\$635.00
Audiometer Rental	167.50
Laboratory Receipts	374.29
Licenses—Cold Storage	320.00
“ Goat Milk	164.36
“ Ice Cream	6,305.00
“ Milk Plant	15,850.00
“ Narcotics	395.00
“ Sewage and Water Plant Operators	3,541.00
Miscellaneous	26.00
Penalties, Violations, Food and Drug Laws	5,768.15
Vital Statistic Certificates	45,700.38
Total Revenue Transmitted to the State Treasury	\$79,246.68

BUREAU OF ADMINISTRATION

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY
FOR THE YEAR ENDING JUNE, 30, 1941STATE FUNDS
CENTRAL ADMINISTRATION BUREAUS

	Adminis- tration	Local Health	Vital Statistics	Food and Drugs	Engineer- ing	Chemistry	Bacteri- ology	Totals
Salaries	\$24,808.63	\$35,467.70	\$33,527.56	\$32,485.00	\$50,369.57	\$22,428.34	\$35,868.00	\$235,035.70
Laboratory supplies .....	.....	.....	.....	162.42	.....	1,301.50	7,513.98	8,977.00
Laboratory receipts .....	.....	.....	.....	.....	.....	.....	498.32	498.32
Pneumonia serum	2,490.14	14,967.54	.....	.....	.....	.....	.....	14,967.54
Stationery and office supplies	273.88	851.33	.....	.....	1,503.13	.....	.....	2,409.14
Auto maintenance	200.27	82.76	185.37	.....	201.52	.....	.....	2,628.34
Office equipment .....	.....	.....	.....	.....	.....	.....	327.96	997.88
Engineering supplies	58.26	7.50	32.00	.....	798.34	.....	.....	798.34
Other material and supplies	2,539.95	862.03	159.05	7,828.36	101.97	32.31	17.20	249.24
Travel .....	.....	177.00	.....	.....	212.50	62.85	248.36	14,998.51
Auto insurance	2,366.34	459.28	1,569.77	311.16	463.17	32.00	765.05	389.50
Printing .....	.....	588.00	750.00	.....	.....	.....	.....	5,966.87
Binding certificates	71.00	316.00	708.00	.....	.....	.....	.....	750.00
Rent—fabulating machine .....	.....	4.16	.....	.....	397.00	.....	.....	1,296.09
Rent—garages .....	.....	67.65	.....	182.77	236.00	.....	.....	784.00
Court expenses	2,512.65	.....	60.19	18.30	137.85	.....	.....	422.63
Other miscellaneous expenses .....	.....	.....	.....	.....	.....	171.62	710.11	3,678.37
Totals	\$35,330.12	\$53,851.05	\$36,991.94	\$40,988.01	\$57,718.96	\$24,028.62	\$40,048.98	\$294,037.08

DEPARTMENT OF HEALTH

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941—Continued

STATE FUNDS
APPROPRIATIONS FOR SPECIFIC PURPOSES

	Veneral Disease Control	Sanitary Shellfish Control	Ice Cream Licenses	Milk Plant Licenses	Toxoid Distribution	Maternal and Child Health	Totals
Salaries	\$17,570.26	\$14,905.00	\$2,100.00	\$8,808.63	\$1,020.00	\$81,643.52	\$123,240.41
Lab. sup., drugs and biolog.	4,800.29	372.36			9,484.39	511.32	15,168.36
Stationery and office supplies	387.89	159.73	81.05	361.13	99.25	1,262.87	2,351.92
Auto Maintenance		242.54				224.56	242.54
Office equipment				137.63			224.56
Inspectors supplies							137.63
Other material and supplies							
Travel	2,025.70	1,694.45	154.25	1,996.37	118.82	15,801.89	21,791.43
Insurance—boat, car, plant		995.60	33.80				959.40
Printing	172.22	38.75			29.03	611.66	851.66
Rental—laboratory and car		314.63	60.00				374.63
Court expenses			18.67				18.67
Maintenance of plants		533.53					533.53
Maintenance of boats		1,979.94					1,979.94
Miscellaneous expenses	69.67					160.66	230.33
Totals	\$25,035.03	\$21,256.53	\$ 2,447.77	\$10,803.76	\$11,351.49	\$100,216.48	\$171,111.06

TOTAL EXPENDITURES FROM STATE FUNDS

Central Administration Bureaus	\$294,957.63
Appropriations for Specific Purposes	171,111.06
Total	\$466,068.74

BUREAU OF ADMINISTRATION

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941

Project Title VI Social Security Act	FEDERAL FUNDS			Total Expenditures
	Salaries	Travel	Materials and Supplies	
Bureau of Administration	\$12,503.44	\$1,004.78	\$6,330.78	\$19,839.00
Bureau of Local Health Administration				
Negro Health Program	17,025.22	2,847.53	3,689.42	23,562.17
Atlantic, Cape May Health District....	5,460.00	1,143.25	874.97	7,478.22
Bergen, Passaic Health District	3,862.42	746.88	56.75	4,666.05
Burlington Health District	2,606.00	304.46	168.80	3,079.26
Camden, Salem, Gloucester Health District	5,231.88	476.61	691.87	6,400.36
Monmouth, Ocean Health District.....	5,485.82	1,106.10	425.00	7,016.92
Somerset, Hunterdon, Middlesex Health District	2,160.00	241.26	126.90	2,528.16
Sussex, Warren, Morris Health Dist.			258.00	258.00
Rural Sanitation	3,725.00	901.50	834.22	5,460.72
Fort Dix Regional Health Unit	2,848.55	5,266.59	34.89	8,150.03
Bureau of Bacteriology	2,455.16	432.13	136.37	3,023.66
Bureau of Chemistry	22,434.03		7,382.50	29,816.53
Bureau of Engineering	12,350.65		2,592.49	14,943.14
Bureau of Food and Drugs	16,139.15	2,448.83	1,819.85	20,407.83
Bureau of Vital Statistics	20,064.92	6,251.07	3,689.23	30,005.22
Dental Health Program	6,528.27		1,461.01	7,989.28
Training of Personnel	9,348.46	1,234.91	2,393.16	12,976.53
Division of Venereal Disease Control.	5,247.68	272.38		5,520.06
	2,065.21			2,065.21
<i>Expenditures Departmental</i>				
<i>Projects</i>	\$157,541.86	\$24,678.28	\$32,966.21	\$215,186.35

DEPARTMENT OF HEALTH

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE
STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941—Continued

Project	FEDERAL FUNDS		Materials and Supplies	Total Expendi- tures
	Salaries	Travel		
<i>Subsidized Local Health Units</i>				
City of Camden	\$3,021.09	\$.....	\$378.49	\$3,399.58
City of East Orange	2,600.00	19.60	450.40	3,070.00
Monmouth County Unit No. 1.....	2,600.00	100.00	300.00	3,000.00
Monmouth County Unit No. 2.....	6,209.56	835.86	1,107.98	8,153.40
Newark Sanitation Functional Study..	5,128.28	120.00	1,049.31	6,297.59
City of Paterson	8,405.00	.....	570.16	8,975.16
City of Plainfield	1,375.00	.....	372.80	1,747.80
Union County Unit No. 1	6,800.00	750.00	1,230.00	8,780.00
Union County Unit No. 2	3,609.84	379.92	200.12	4,189.88
<i>Expenditures Local Health Units</i>	<i>\$39,748.77</i>	<i>\$2,205.38</i>	<i>\$5,659.26</i>	<i>\$47,613.41</i>
<i>Total Expenditures—Title VI, Social Security Act</i>	<i>\$197,290.63</i>	<i>\$26,883.66</i>	<i>\$38,625.47</i>	<i>\$262,799.76</i>

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE
STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941—Continued

Project	FEDERAL FUNDS		Materials and Supplies	Total Expendi- tures
	Salaries	Travel		
<i>Veneral Disease Control Act</i>				
Bureau of Bacteriology	\$4,519.92	\$127.59	\$4,711.62	\$9,359.13
Division of Veneral Disease Control	50,895.41	4,037.68	67,099.87	122,032.96
Training of Personnel	6,744.53	.....	.....	6,744.53
<i>Expenditures Veneral Disease Control Act</i>	<i>\$62,159.86</i>	<i>\$4,165.27</i>	<i>\$71,811.49</i>	<i>\$138,136.62</i>
<i>Subsidized Local Health Units— Veneral Disease Control</i>				
City of Camden	\$1,897.50	\$.....	\$2,230.67	\$4,128.17
Jersey City	2,640.00	.....	.....	2,640.00
City of Newark	4,929.99	.....	1,640.00	6,569.99
City of Paterson	2,630.00	.....	1,260.00	3,890.00
<i>Expenditures Subsidized Local Health Units—Veneral Disease Control</i>	<i>\$12,097.49</i>	<i>\$.....</i>	<i>\$5,130.67</i>	<i>\$17,228.16</i>
<i>Total Expenditures—Veneral Disease Control Act.....</i>	<i>\$74,257.35</i>	<i>\$4,165.27</i>	<i>\$76,942.16</i>	<i>\$155,364.78</i>

BUREAU OF ADMINISTRATION

STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF HEALTH OF THE STATE
OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1941—Continued

Project	FEDERAL FUNDS		Materials and Supplies	Total Expendi- tures
	Salaries	Travel		
<i>Title V, Social Security Act</i>				
<i>Total Expenditures—Maternal and Child Health</i>	<i>\$85,368.25</i>	<i>\$9,396.24</i>	<i>\$4,503.66</i>	<i>\$99,268.15</i>
<i>Total Federal Funds Expended</i>	<i>\$356,916.23</i>	<i>\$40,445.17</i>	<i>\$120,071.29</i>	<i>\$517,432.69</i>
COMBINED EXPENDITURES—STATE AND FEDERAL FUNDS				
State			\$361,302.11	
<i>Salaries—</i>				
Federal: Title VI—Social Security Act	\$197,290.63			
Veneral Disease Control Act.....	74,257.35			
Title V—Social Security Act.....				
Maternal and Child Health.....	85,368.25	356,916.23	\$718,218.34	
State		\$104,766.63		
<i>Other Expenses—</i>				
Federal: Title VI—Social Security Act	\$65,509.13			
Veneral Disease Control Act.....	81,107.43			
Title V—Social Security Act.....				
Maternal and Child Health.....	13,899.90	160,516.46	\$265,283.09	
<i>Total Expended—State and Federal Funds</i>			<i>\$983,501.43</i>	

Health Education Service

At the meeting of the Department on March 11, 1941, a Public Health Education Service Unit was established in the Bureau of Administration to be in direct charge of Edwin C. Lanigan, Publicity Assistant, under the supervision of the Chief of the Bureau of Administration who will be responsible to the Director and the Board. The Exhibit Manager will handle exhibits and other educational work in the field under the supervision of Mr. Lanigan and the Assistant Chief of the Bureau will assist the Service Unit in so far as his other duties permit.

The following were designated as the principal duties of the Service Unit:

1. To formulate, with the other Bureaus, the specific objectives of the Department's education program to meet the public health problems of the State.
2. To consult with the other Bureaus in planning the health education measures to be used and to insure that the Department has an education program adequate for the needs of the State which will meet the specific objectives formulated.

3. To assist in correlating the health education measures of the Bureaus in order to insure a complete, balanced program and to avoid duplication of effort.
4. To assist in the execution of the education program by providing health education facilities for the Bureaus.

An Editorial Advisory Board consisting of the Director (ex officio) and representatives of the various interested Bureaus was appointed to assist in planning the education program, to pass upon questionable material, and to stimulate the health education activities of the Bureaus.

Report of the Bureau of Local Health Administration

FOR THE YEAR ENDING JUNE, 30, 1941

By WILLIAM H. McDONALD, *Chief*

New low communicable disease records were established in 1940 in New Jersey. These new annual records included:—the lowest number of reported cases of diphtheria and typhoid fever, and the lowest annual death rate from pneumonia, typhoid fever and tuberculosis.

In diphtheria the reduction in recent years has been striking and reflects directly the effect of widespread use of toxoid as an immunizing agent against the disease. The County of Hudson again was in the unenviable position of having a relatively high diphtheria rate. Forty-three percent of all the reported cases of this disease, and seventy-eight percent of the recorded deaths occurred in this County.

The further reduction in total deaths from pneumonia is gratifying and apparently results from more effective treatment of this disease by modern methods and materials. Pneumonia still takes a very heavy toll among infants less than one year old, 274 deaths from this cause being recorded in this age group.

Scarlet fever in 1940 was prevalent to a greater degree than usual; however, the number of deaths recorded directly from this cause (17) was low.

No case of smallpox was recorded in New Jersey for the ninth consecutive year.

Chickenpox, measles, mumps, and whooping cough still attack each year a large part of the younger population. The toll in deaths resulting directly from these diseases fortunately is small, in proportion to the total number of cases. Measles and whooping cough, however, exact their heaviest toll in deaths from the very young. All the deaths from measles (8) recorded in 1940, and all but one of the recorded deaths from whooping cough (24) occurred in children less than five years of age.

The total number of cases of the thirty-four diseases declared reportable by State Regulations, which were reported to the State Health Department in New Jersey during the calendar year of 1940, was 72,022.

RABIES

A fatal case of rabies in humans was recorded during the fiscal year July 1, 1940 to June 30, 1941. This was an eight year old boy, bitten on the

forehead on October 23, who became ill on November 20 and died on November 26. He did not receive pasteur treatment.

Rabies in animals continued high in prevalence during 1940, although less than in the preceding year. Nearly all the cases were found in the northern part of the State and, chiefly, in the northeastern Counties.

NUMBER OF CASES OF RABIES IN ANIMALS REPORTED BY LOCAL BOARDS OF HEALTH BY COUNTIES AND BY MONTHS, DURING THE YEAR 1940

County	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Atlantic	0	0	0	0	0	0	0	0	0	0	0	0	0
Bergen	103	10	11	9	16	14	15	5	1	3	4	7	8
Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0
Camden	7	0	4	1	1	0	0	0	0	0	0	1	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	0
Essex	52	3	4	7	8	6	6	4	3	3	1	3	4
Gloucester	0	0	0	0	0	0	0	0	0	0	0	0	0
Hudson	136	8	10	8	33	19	15	14	1	8	5	3	4
Hunterdon	1	0	0	0	0	0	0	0	0	0	0	1	0
Mercer	7	1	0	0	0	2	2	0	2	0	0	0	0
Middlesex	14	0	5	0	7	0	0	1	1	0	0	0	0
Monmouth	5	2	0	0	0	0	3	0	0	0	0	0	0
Morris	30	1	1	0	4	4	2	3	8	1	2	0	4
Ocean	0	0	0	0	0	0	0	0	0	0	0	0	0
Passaic	20	1	0	0	2	4	3	1	0	4	0	2	3
Salem	0	0	0	0	0	0	0	0	0	0	0	0	0
Somerset	8	0	1	1	0	0	0	0	1	1	1	2	1
Sussex	12	4	3	2	0	2	0	0	1	0	0	0	0
Union	14	0	1	0	1	3	1	6	1	0	1	0	0
Warren	7	0	0	0	1	3	0	1	1	0	1	0	0
State	416	30	40	36	73	57	47	35	20	20	15	19	24

Because of the prevalence of rabies in the northeastern section of the State and the liability of the infection to spread, the State Health Department, acting under authority conferred by Statute, had notified certain local Boards of Health to order the owners of dogs that all such animals within the jurisdiction of these Boards be confined in a pen or enclosure, or be on leash accompanied by a responsible person if allowed at large.

On July 1, 1940, this notice was in effect as applying to all the Boards of Health of municipalities in Morris, Union, Essex, Hudson and Bergen Counties; all municipalities in the southern half of Passaic County; Princeton Borough and Princeton Township in Mercer County; the Boroughs of Sayreville, Highland Park, South River, Milltown, and Metuchen, and the Townships of East Brunswick and Raritan in Middlesex County; Sussex Borough and Wantage Township in Sussex County; and the Townships of Independence, Allamuchy, and Mansfield, with the Town of Hackettstown in Warren County.

This affected area was gradually reduced during the year as the lessening

in the prevalence of rabies indicated. At the close of the year June 30, 1941, the order of the State Department that dog owners be required to keep such animals confined still applied to the Boards of Health in all municipalities of Bergen, Essex and Hudson Counties, the southern half of Passaic County and the City of Lambertville and the Township of West Amwell in Hunterdon County.

The Joint Rabies Committee, referred to in previous reports, continued to be helpful in conferences regarding the rabies situation in general, and the Special Legislative Committee of this group presented for consideration a tentative bill on the subject of dog control. This bill related primarily to the licensing and regulation of dogs, kennels, pounds, and shelters, but did not include within its provisions any proposed amendment to existing laws relating specifically to rabies.

The tentative bill proposed by the Committee, after conference and study by the Joint Committee and other groups, was finally approved, presented to the Legislature, and enacted as Chapter 151, P.L. of 1941, to become effective November 1, 1941.

In view of the continued prevalence of rabies among dogs during the year, inevitably many persons were bitten by rabid animals, or otherwise risked infection by close association with them. Definite figures to show the total number of exposed persons, or the total persons who received anti-rabic treatment, are not available. Reports from local Boards of Health, however, show that during the calendar year 1940 at least 930 persons in New Jersey, to the knowledge of these Boards, received such treatment. The local Boards of Health further reported that expenditures from local public funds during the year, in furnishing anti-rabic treatment to persons unable to pay, amounted to \$6,236.24. As a further indication of the public health problem presented by dogs, the local Boards of Health in New Jersey state that, during the year 1940, the cases of dog bite reported to such Boards numbered 15,463.

INVESTIGATION OF COMMUNICABLE DISEASE OUTBREAKS

The investigation of cases of communicable disease, in an effort to determine the source of infection and other pertinent facts, continues to be a fundamental activity of Health Departments. Such investigations, if carefully and thoroughly performed, often require a great deal of time; however, this type of work is essential in a communicable disease program. Supplementing investigations by local health officials, employees assigned the Bureau of Local Health Administration personally investigated during the year considered 297 cases of reportable diseases and nearly 400 cases of gastro enteritis. This number is exclusive of investigations of

cases of venereal disease, typhoid and diphtheria carriers, and of cases in State Institutions.

The diseases represented in these investigations included:—anthrax, chickenpox, diphtheria, dysentery, malaria, measles, meningitis, paratyphoid, poliomyelitis, psittacosis, rabies (human), Rocky Mountain spotted fever, scarlet fever, trachoma, trichinosis, tuberculosis, tularemia, typhoid, undulant fever.

A group of seventeen cases of typhoid fever in the Washington Crossing section of Hopewell Township, Mercer County, were found to be chiefly among users of a deep drilled well, from which water was piped to eight homes where it was the only source of potable water. Others also had access to the water from the well for drinking.

Laboratory examination of samples from this well revealed pollution. Technically, this constituted a public water supply, although its existence had not previously come to the attention of the Department. The use of water from this source was discontinued.

A small group of cases of typhoid fever (3) in Burlington City were found to have drunk water from a stream shortly below a point where the stream waters were found to be heavily polluted by sewage from a privately maintained institution.

UNDULANT FEVER

Seventy-six cases of this disease were reported during the calendar year, two of which were fatal. The highest number of cases reported in any County was twelve in Morris. Histories of all reported cases were secured either by employees of the Bureau or through local health officials. Study of the histories shows that 44 of the 76 patients used raw milk; 12 used both raw and pasteurized milk; 5 used pasteurized milk regularly but occasionally used milk of unknown kind; in two instances no data as to the use of milk was obtained. In 13 cases the use of only pasteurized milk was claimed. Of the cases in this category, three were exposed to infection thru their occupations, two being butchers and one a veterinarian.

ROCKY MOUNTAIN SPOTTED FEVER

Although the number of cases of Rocky Mountain spotted fever reported in 1940 was lower than the previous year, there is no doubt the infection is definitely established in the State. The 12 cases reported in 1940 were distributed in the Counties of Atlantic, Burlington, Cumberland, Essex, Gloucester, Monmouth, Ocean, and Salem.

Cases of the disease investigated by employees in the Bureau usually

gave a definite history of tick bite, prior to onset. In spite of the high prevalence of ticks in all parts of the State, no concerted effort for their elimination has been made, owing to the lack of effective and practical control measures.

Through the cooperation of the National Institute of Health, preventive vaccine was made available to physicians desiring to use it.

ANTHRAX

Two small groups of cases of anthrax were investigated, one among workers in an industrial plant in Passaic County, where the infected persons were exposed to imported wool; the second group of cases was among handlers of imported hides in a leather plant in Camden County.

MALARIA

Fifteen cases of malaria were reported in the State during the year 1940. Investigation of these cases by local health officials, or by employees in the Bureau, established the fact that at least 13 of these cases were infected outside of New Jersey. The remaining 2 cases occurred in persons in the Counties of Bergen and Salem. In 3 of the reported cases the diagnosis of malaria was not confirmed by Laboratory tests.

TULAREMIA

The two cases of tularemia reported during 1940 were in Cumberland and Atlantic Counties. One of the patients handled a dead wild rabbit prior to onset of illness; the other case dressed a rabbit which was purchased at a local store.

TRICHINOSIS

A group of 11 known cases of trichinosis occurred as a local outbreak in Bridgeton, Cumberland County. All were among users of pork obtained from a local butcher and made into a product by the purchasers which was eaten by the affected persons without thorough cooking.

A group of 5 cases occurred in Hudson County in persons who ate pork procured from the same shop.

PSITTACOSIS

What may later be looked upon as a famous "first" occurred in New Jersey in the current year in respect to psittacosis.

On about November 21, 1940 an adult female in a rural section of Morris

County became ill with symptoms suggestive of pneumonia and was later admitted to a local general hospital. Further study of the case indicated psittacosis and a specimen of blood examined at the Hooper Foundation in California was reported as positive, based upon its demonstrated power to fix psittacosis antigen. No history of recent exposure to any bird of the psittacine family, nor to doves, pigeons or finches, could be secured from the patient, nor from other members of the household. Chickens raised on the premises had suffered heavy fatalities. Several of the fowls on the premises at the time of the illness of the patient were emaciated; some had what the owner considered range paralysis. Three of the more emaciated fowls were killed and shipped to the Hooper Foundation in California. Dr. Karl F. Meyer, Director, later reported the organs of one of these fowls when passed through mice produced in these animals typical psittacosis. He also reported the virus was further checked and determined to be that of psittacosis. Later, blood was collected by Dr. Meyer from other fowls remaining in the flock.

GASTRO-ENTERITIS

Several outbreaks of cases of acute intestinal disturbances were investigated in different parts of the State. No specific causative organism was identified in any of these groups of cases and the actual article of food or drink thought responsible for the respective outbreaks can only be stated as problematical, based upon the predominance of cases among persons who partook of that particular article of food or drink at a dinner or function shortly preceding the onset of illness.

For a group of about 100 cases in Passaic County, water from a local spring was suspected as the vehicle involved.

A group of over 90 cases occurred among persons at a banquet in Bergen County, among whom dressing in roast turkey appeared to be the article of food used in common.

Nine cases in one group in Gloucester County used in common a prepared salad dressing.

Another group of 9 cases in Ocean County gave a history of eating "tenderized ham".

Eighteen cases in Morris County occurred in persons who ate at a special dinner and among these patients cold roast beef was the common article eaten.

While all the cases in these groups became acutely ill within a few hours after partaking of the meal or food suspected, practically all made a rapid recovery.

TYPHOID CARRIERS

At the close of the fiscal year, 81 carriers of typhoid bacilli were recorded as residing in New Jersey. Ten persons were removed from the active list in New Jersey during the year, 4 of whom moved out of the State and 4 of whom died.

By resolution of the State Department of Health, 5 additional persons were declared during the year to be carriers of typhoid bacilli. Two of the persons added to the carrier list during the year had previously been so classed in New York City and came to reside in New Jersey. The other 3 carriers were discovered in New Jersey in the investigation of cases of typhoid fever in members of their respective household.

ASSISTANCE IN DIAGNOSIS

In response to requests from physicians, health officials and heads of institutions, field assistance was rendered during the year in establishing a diagnosis in 32 cases suspected to be communicable diseases. The diseases involved included scarlet fever, Rocky Mountain spotted fever, trichinosis, poliomyelitis, typhoid fever, German measles, and whooping cough. Cases of suspected diphtheria, smallpox, rabies, and trachoma were also studied.

COMMUNICABLE DISEASES ON DAIRIES

Sixty-three cases of scarlet fever, 5 cases of diphtheria, 3 cases of tuberculosis and 1 case of typhoid fever were reported on 51 dairy premises at which 23,535 quarts of milk were produced daily.

In all instances arrangements were made to carry out precautionary measures designed to prevent the transmission of infection through milk or milk products.

TOXOID AND VACCINE

Diphtheria toxoid and smallpox vaccine were distributed through stations located at strategic points about the State where these materials were available to physicians and also to local health officials for clinic purposes, under the rules previously adopted by the Department. Reports received during the year show the toxoid so distributed was administered to 45,365 children and that 25,274 persons were vaccinated against smallpox with the State's material.

DEPARTMENT OF HEALTH

NUMBER OF PERSONS REPORTED AS GIVEN FREE STATE TOXOID OR VACCINE
DURING THE YEAR ENDING JUNE 30, 1941

County	Diphtheria Immunizations	Smallpox Vaccinations
Atlantic	7,237	759
Bergen	3,525	2,060
Burlington	1,161	321
Camden	2,128	1,491
Cape May	60	117
Cumberland	123	163
Essex	8,566	6,737
Gloucester	351	267
Hudson	5,763	3,544
Hunterdon	579	29
Mercer	2,925	1,209
Middlesex	651	925
Monmouth	1,260	1,143
Morris	643	676
Ocean	209	37
Passaic	5,545	3,358
Salem	899	430
Somerset	308	167
Sussex	18	33
Union	3,307	1,519
Warren	107	289
Totals	45,365	25,274

Six percent of the children reported as receiving the toxoid were less than one year old; thirty-five percent were less than five years of age. About four percent of persons vaccinated with the State vaccine were children below one year of age, while 42 percent were children less than five years old. Since June, 1934, when the Department first was able to furnish toxoid and smallpox vaccine, to June 30, 1941, a total of 257,363 persons have been reported as having received the diphtheria immunizing treatments with the State toxoid and 154,413 persons have been reported as vaccinated with the State's vaccine.

PNEUMONIA SERUM

By Act of Legislature, funds were again made available for the purchase of pneumonia serum for use by physicians on patients financially unable to pay for the material. Distribution of the material was continued through about 30 stations located in offices of local Boards of Health and in certain hospitals where the placing of such a station seemed practical. All types

LOCAL HEALTH ADMINISTRATION

of serum for therapeutic purposes were made available at the Station in the office of the State Health Department at Trenton; in several key stations about the State the number of types of serum kept for distribution was increased. Also there was furnished to Laboratories of local health departments and to hospital Laboratories doing some free work, sets of typing serum including each of the types available. The Laboratories, to which the material was released, had been approved for typing pneumococci.

During the fiscal year, reports on the use of the State material were received from physicians in 261 cases, residing in eighteen Counties. The data collected shows that of those cases receiving the serum, with or without other specific treatment, sixty-three died. The mortality of this group of cases was twenty-four percent.

No drug for the treatment of pneumonia was furnished by the Department, although requests for such materials were received.

PNEUMONIA CASES TREATED WITH SERUM
SUPPLIED BY STATE

Type	Total No. Cases	Number Cases Treated With Specific Drugs	Number Cases Treated With Serum Alone	Number Recoveries	Number Deaths
I	68	27	41	60	8
II	15	9	6	12	3
III	64	33	31	42	22
IV	12	7	5	8	4
V	4	2	2	4	0
VI	9	6	3	2	7
VII	23	13	10	18	5
VIII	29	15	14	23	6
IX	5	3	2	5	0
X	1	1	0	1	0
XI	5	4	1	5	0
XII	1	1	0	0	1
XIII	2	1	1	2	0
XIV	5	3	2	4	1
XV	1	1	0	1	0
XVII	3	3	0	3	0
XVIII	2	2	0	1	1
XIX	2	2	0	2	0
XXI	1	0	1	1	0
XXII	2	1	1	1	1
XXIII	1	0	1	1	0
XXV	1	1	0	0	1
XXVIII	1	0	1	1	0
XXXI	3	2	1	1	2
XXXIII	1	1	0	0	1
Totals	261	138	123	198	63

COMMUNICABLE DISEASE IN STATE INSTITUTIONS

Investigation was made of cases of communicable diseases at five State Institutions. The diseases involved included scarlet fever, typhoid fever, amoebic dysentery, chickenpox, German measles, measles, and whooping cough. Field aid was rendered in cooperation with the Bureau of Bacteriology at certain State Institutions in searching for carriers of the causative agent of amoebic dysentery. Assistance was rendered in giving tetanus immunizing treatments at one Institution.

CANCER

Each month throughout the year a special bulletin was issued to physicians on cancer. This bulletin consisted chiefly of digests of new articles on cancer published by some authority on the subject. The digest of the articles used was distributed in cooperation with the Cancer Committee of the State Medical Society.

A survey was made at Cancer Clinics in the State to determine facilities available and administrative procedures followed at such Clinics, and also to determine the case load now being carried at these Clinics and the probable need of further expansion, if practical.

SOCIAL SECURITY ACT FUNDS

The continued availability of Federal Funds, allotted by the United States Public Health Service under Title VI of the Social Security Act, made possible the employment of personnel in addition to those paid from State Funds. The Department also found it possible to continue during the year some subsidy from Federal Funds to local Health Departments in Camden, East Orange, Paterson, Plainfield, and Newark, and also to aid substantially in maintaining four local Health Units, consisting of two groups of Boards of Health in Monmouth County; one of five with Asbury Park as a center; one of six with Long Branch as the Center; and two groups in Union County, one involving Union Township and two other municipalities, the other including Cranford and three other municipalities.

Through the efforts of District Health Officers, there were also continued during the year twenty-three groups of local Boards of Health in small communities, jointly supporting a Venereal Disease Treatment Clinic, with some financial aid from the Department. These groups were organized in Atlantic, Cape May, Cumberland, Burlington, Gloucester, Monmouth, Morris, and Warren Counties. A majority of these groups were organized and functioned under the provisions of the "Regional Health Commission Act".

VENEREAL DISEASES

Organization of the groups of Boards of Health, above mentioned, made possible the continued maintenance of twenty-three Venereal Disease Clinics during the year. Summaries of patients treated and examinations made at such Clinics will doubtless be incorporated in tabulations in the report of the Division of Venereal Disease Control. In addition to efforts to encourage the continuance of these groups, other work for the control of venereal diseases was carried on from District Health Offices.

In Sussex and Warren Counties, several physicians at larger towns agreed to treat cases of syphilis in the low wage group at their offices at a low fee, to be paid by the Board of Health of the municipality in which the patient resided. To maintain this as a trial working plan required much tact and explanation by the District Health Officer to the local Board of Health concerned in paying bills rendered.

At District Offices at Pitman, Dover, and Mt. Holly there was continued the assignment of a Public Health Nurse for Communicable Diseases, paid from Funds under the Federal Social Security Act. The time of these nurses was almost entirely occupied in Venereal Disease Control work. They attended Clinics in the area to which they were assigned, interviewed patients, followed up contacts and patients delinquent in treatment, and made other special investigations of cases or suspected cases. Clerks in District Health Offices also aided in keeping Venereal Disease Clinic records and in summarizing and tabulating such records. Some field investigations of venereal disease cases were also made by Inspectors attached to District Health Offices.

Although, as a result of resignations and otherwise, the positions of the three Public Health Nurses were not filled continuously for the entire year, these persons reported making 2446 field investigations regarding venereal disease, 67 field investigations of other types, attended 58 meetings on Public Health topics, in addition to 842 conferences with local health officials and physicians in regard to problems of mutual concern and interest.

ADVISORY PUBLIC HEALTH NURSE

The Advisory Public Health Nurse added to the personnel of the Bureau last year continued to develop activities during the current year. In her work, the Advisory Nurse held 272 conferences with individual nurses, Health Officers, or representatives of nursing groups. She attended 69 meetings of nursing groups and agencies. Efforts have been continued to become better acquainted with the Public Health Nursing programs carried on in different communities of the State. Directly to this end, information furnished through questionnaires to different agencies employing Public

Health Nurses is being assembled in a comprehensive file, which can be used as a source of data and reference. Data regarding employment and training of individual Public Health Nurses are also being assembled.

Definite assistance was rendered in organizing institutes on orthopedic nursing for Public Health Nurses and for study of other lines of work, better knowledge of which would increase the value and effectiveness of this group. Aid and advice was also given in the field to Public Health Nurses employed both by official and non-official agencies.

FORT DIX REGIONAL UNIT

With the sudden expansion of Fort Dix in Burlington County, and the assignment of additional men to the Camp both from the Regular Army, as well as from the National Guard and under the provisions of the National Selective Service Act, health problems in the area surrounding the Camp increased in extent and in importance. The situation in this immediate area did not differ much from the situation existing prior to and during the World War.

None of the small Boroughs or Townships surrounding the Military Reservation employed a qualified Health Officer and, with limited resources, these municipalities could not be expected alone to cope with the health problems which early arose and promised to become more complicated and intense.

Experience with similar conditions in this same area during the World War indicated the desirability of a Unit of Public Health personnel with headquarters in the area, to operate in matters pertaining to the Public Health and to keep in close touch with the Military authorities in health affairs.

As a preliminary step on September 20, 1940, Mr. Fred L. Crocker, Senior Sanitary Inspector, was detailed to carry on inspections and studies in the zone. Efforts to locate an office in Wrightstown were not successful owing to the cost involved; however, through the courtesy of the New Hanover Township Committee, at least temporary office quarters were made available and accepted at a small building used as a Township Hall at Cookstown.

Meetings of several of the Boards of Health in municipalities near the Camp were attended, their responsibilities were pointed out, and aid offered. In order to facilitate matters, Mr. Crocker was promptly appointed Health Officer by the Boards of Health of Wrightstown, New Hanover Township, and Pemberton Township, to serve without pay from such Boards. Clerical and inspectional aid was furnished Mr. Crocker from resources of the Department.

For purposes of administration, the zone to be covered from the Cookstown Regional Office was limited to the Boroughs of Wrightstown and Pemberton, the Townships of New Hanover, Pemberton, North Hanover, and Springfield in Burlington Counties, and the Township of Plumsted in Ocean County.

In addition to communicable disease investigations, inspection was made of all eating places in the area and a plan of frequent reinspection of such places was established. House to house sanitary inspections were also made as rapidly as practical.

The Village of Pointville, in New Hanover Township, presented particularly serious problems in sanitation, inasmuch as this village adjoins the Camp affording building sites for businesses of all types, but had no public water supply nor sewerage facilities. The Board of Health of New Hanover Township early adopted a comprehensive ordinance, providing for a system of filing plans and issuing permits for any new or reconstructed well or sewage receptacle in the area. Enforcement of this ordinance was maintained through the Regional Office at Cookstown.

At the end of the fiscal year, inspections made included as a minimum: primary inspections at 110 public eating and drinking places, with 492 re-inspections, and inspections at 1001 other premises, with 243 re-inspections.

The United States Public Health Service expressed particular interest in the health problem in the area as a Defense Measure and volunteered to supply, upon request, a Medical Health Officer to be assigned the Unit. Such a request was made and Dr. Albert Chapman reported for duty on May 26, 1941.

At the end of the fiscal year, June 30, 1941, the personnel of the Unit consisted of: Mr. Crocker, Dr. Chapman, a Clerk-stenographer, two Sanitary Inspectors, and a Public Health Nurse, with a Sanitary Engineer also assigned to the area by the United States Public Health Service.

INSPECTION OF RURAL EATING PLACES

The intensive work carried on last year in inspecting eating places and other public places along highways in the more rural sections of the State could not be continued during the present year, except on a much restricted scale. No special inspector was employed for this work during the summer and demands for services of inspectors regularly employed required a great deal of their time in other lines. The combined personnel of the Bureau during the year did succeed in making inspections at 920 food vending places, at which 895 re-inspections were made. As an average, the sanitary conditions at the premises inspected were better than found the previous year.

MIGRATORY LABORERS

It has long been common for groups of persons from other States to come to the southern section of New Jersey during part of the year to work in harvesting vegetable, fruit and berry crops. In recent years, during the potato harvesting months of July to October, large numbers of colored workers from the southern States have been attracted to the potato growing sections of Monmouth, Middlesex, and Mercer Counties. Most of these migratory laborers, while in New Jersey, live on farms at which they are employed. While there had been some criticism of the sanitary conditions under which these persons lived in the State, more attention was focused upon the problem as a result of the discussions of the New Jersey Conference on Migratory Labor and hearings of the Congressional Committee to investigate Interstate Migrations on a National scale.

During the year under consideration a cross section survey was made at premises employing the housing migratory laborers in different parts of the State. From this survey, although it was evident that definite effort had been made by numerous employers to provide reasonably safe temporary living quarters, much improvement could and should be made.

Certain basic recommendations for sanitary facilities at such places were made which have been publicized to some extent by the State Conference on Migratory Labor and have been presented and discussed with leaders among the potato growers. If a definite program of inspection, explanation and conferences with individual farmers employing and housing migratory labor could be carried on during the off season, more definite progress could be made in improving basic conditions.

CAMPS

Increased emphasis was placed during the year upon inspections at summer camps. The enactment of the "Public Place Act" which also relates to camps gave to the Department specific authority in matters relating to basic sanitation at such places. Under date of July 9, 1940, the Director of Health, under authority granted in Revised Statutes 26:2-65, proclaimed a standard of quality of water for certain uses at camps and other public places. The standard so established is as follows:—

"In conformity with Title 26:2-65, Revised Statutes of New Jersey, there were established on July 9, 1940, the following standards of quality for water which is used for or available for use for drinking or culinary purposes or for the cleansing of utensils used in preparing or serving food or drink for public consumption at any "public place" in New Jersey:

1. A public potable water supply of a quality in accord with standards for such supplies previously adopted by this Department and now in force.

2. A non-public or private water supply which meets the following conditions:
 - a) The well or other source of water supply shall not be located so that seepage or drainage from any privy, cesspool, septic tank, subsurface sewage disposal area, house drain, barnyard or other possible source of pollution is liable to reach such water supply.
 - b) The well or other source of water supply shall be protected by means of suitable casing, curbing, cover, drainage, proper installation and type of pump and pipes, so that surface water flowing over or seeping through the ground and waste water from the pump, or other polluting matter will not contaminate the water, and no part of the distributing system shall be so constructed or maintained that polluting materials shall reach such water.
 - c) The water shall be free from evidences of contamination and shall be of such a quality bacteriologically that not more than ten percent of all ten cubic centimeter portions examined shall show the presence of organisms of the Coli Aerogenes Group. Such examinations shall be made in accordance with 'Standard Methods of Water Analysis', American Public Health Association, New York, eighth edition, 1936, or as may be designated in later editions, and the procedures for demonstration of organisms of the Coli Aerogenes Group shall conform to those of the 'completed test' as therein specified or as may be designated in later editions of such 'Standard Methods'.
 - d) No physical connection between an approved public potable water supply and a separate supply at a 'public place' shall exist except as may be permitted under the provisions of Chapter XIII of the State Sanitary Code."

This standard made it possible to insist upon improvements in water supplies at some camps at which this important sanitary feature had been neglected in the past. A plan of issuing an official approval certificate to certain camps desiring and requesting such certificate was also tried. The certificate related only to the camping season for which it was issued, and certified that at the date of issue sanitary conditions at this camp, as applied to items set forth on the certificate, were satisfactory.

While experience with the plan is too limited to judge definitely its practicability, it was received favorably by camp managers and appeared to be a helpful administrative factor.

WATER SAMPLES FROM PRIVATE SUPPLIES

Tests of water samples from private and semi-public water supplies made by the Bureau of Chemistry, are reported upon by the Bureau of Local Health Administration. The report includes a record of the tests, an interpretation of the findings and, in cases where the test indicates the water to be unsafe for drinking and household purposes, a statement of this fact. When action by the local board of health with respect to the well or spring seems desirable, such board is asked to advise the Department what steps it takes in the matter.

During the year 831 such water samples were reported upon. Of these, 492 or about 60% proved to be from safe supplies, 326 or 39% were unsafe and 13 considered of doubtful quality. In 231 instances, the local board of health was asked what follow up action it instituted to have the water supply abandoned or made safe, and in 150 instances, replies received up to June 30, 1941 indicated that satisfactory disposition had been made of the case.

WORKS PROGRESS ADMINISTRATION PROJECT

The Rural Community Sanitation project sponsored by the Department continued in operation during the year under the direct supervision of Dr. N. E. Newbury, employed by the United States Public Health Service, assisted by three field agents, one employed by the same organization and two by the State Health Department.

Under this project privy units of a standardized type are constructed and erected by W.P.A. labor, provided the purchaser supplies all necessary material. All units are fly-proof, having reinforced concrete floor covering a leeching pit, five feet deep with a capacity of forty-five cubic feet, a concrete riser for the seat, cast integral with the floor of the privy. The buildings are constructed of lumber. During the year 1940-1941, the average price of a single unit to the purchaser was \$25.66.

The units were constructed in nine plants located as strategically as possible throughout the State to serve the largest number of rural homes in all Counties.

More privies, with less labor, were built during the year 1940-1941 than at any time since the inception of the program five and one-half years ago.

During the fiscal year 1940-1941, five thousand one hundred and forty-eight units were installed, making a total of twenty-seven thousand one hundred and sixty since the inauguration of the program. Approximately ninety-five per cent of these units have been replacements of excreta disposal receptacles being maintained in violation of the State Sanitary Code. The construction of these privies has provided protection against filth-borne diseases and has been a decided factor in the education of a large number of persons as to the necessity for environmental sanitation.

As an economic factor, the Community Sanitation Project has been an asset to the State. It has given employment to an average of over three hundred men per month for five and a half years. The amount expended by residents of the State of New Jersey for materials entering into the construction of the units is \$644,350.00. One hundred and three local lumber companies have been benefited by the sale of these materials.

Due to Military Encampments at Forts Dix, Hancock, and Monmouth,

the Department deemed it advisable to write a special project covering Burlington, Monmouth, and Ocean Counties, which has been given priority on the basis of defense. The two plants supplying these areas, Lakewood and Mount Holly, have been enlarged and, at the present time, are employing one hundred men.

Unfortunately, shortly before the close of the fiscal year, the United States Public Health Service found that financial aid toward supervision of the project in New Jersey could not be continued after July 1, 1941. The program, therefore, if continued at all next year, must necessarily be greatly curtailed.

RURAL SANITATION UNITS CONSTRUCTED IN COUNTIES OF NEW JERSEY

County	Date Project Opened	Number Units Built for Fiscal Year Ending June 30, 1941	Total Number Units Built to June 30, 1941
Atlantic	February 24, 1936	286	2998
Bergen	July 1, 1937	18	437
Burlington	February 24, 1936	441	2084
Camden	February 24, 1936	510	2180
Cape May	February 24, 1936	145	1169
Cumberland	February 24, 1936	527	3096
Gloucester	February 24, 1936	371	1740
Hunterdon	September 7, 1937	474	881
Mercer	July 1, 1936	135	1356
Middlesex	September 7, 1937	49	492
Monmouth	February 24, 1936	515	2131
Morris	September 7, 1937	278	615
Ocean	February 24, 1936	423	2943
Passaic	July 1, 1937	127	810
Salem	February 24, 1936	174	998
Somerset	September 7, 1937	305	1412
Sussex	July 15, 1937	21	358
Union	September 7, 1937	2	306
Warren	September 7, 1937	345	1154
	Total	5148	27160

TRAINING OF HEALTH PERSONNEL

Training courses for public health personnel were conducted in co-operation with Rutgers University following the plan inaugurated in 1926. Such courses were divided into summer and winter schedules and covered a wide variety of subjects.

The summer course, held two days a week for six weeks in July and August, requires two summers to complete. This course gives training for sanitary inspectors and for health officers of small communities. In 1941,

38 men and women attended the course and 13 completed the requirements and received the certificate granted by the University.

Winter courses, covering two terms of ten weeks each, included three classes held each Wednesday evening and three each Saturday afternoon. Thus 12 different courses of 20 to 30 clock hours were offered during the winter. The winter courses were attended by 145 persons, of whom 59 took one course, 60 attended two courses, 15 took three and 11 took four courses.

Subjects taught in the public health courses included biology, bacteriology, communicable disease control, public health law, vital statistics, water supply, sewage disposal and other sanitation problems, public health education, plumbing inspection, food and drug inspection, milk testing, psychology and public health administration.

Social security funds made possible the conduct of the winter courses and contributed to the support of the summer courses.

OTHER WORK

Services rendered and work performed by the Bureau during the year included many other activities than are specifically mentioned herein. Some of these may be summarized as follows:—

Number of conferences with local health officials on questions pertaining to public health	5,125
Number of meetings of local boards of health attended	115
Attendance at other public health meetings	424
Number of lectures given in summer course for health officials	51
Number of other talks or lectures given or papers read	46
Number of persons given Schick, Dick or Mantoux tests or aid rendered in such tests	1,150
Number of persons given immunizing treatments or vaccinated, or aid given in such treatments	196
Number of water samples collected	536
Number of specimens collected from humans, either by employees in the Bureau or with their aid, to be examined for pathogenic bacteria	130
Number of special inspections or investigations made chiefly regarding public health nuisances	795

REPORTED CASES OF CHICKENPOX IN NEW JERSEY

For the Calendar Year 1940 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	391	58	52	50	42	42	26	10	7	9	10	32	53
1 year	630	80	69	69	73	61	41	38	11	15	14	56	103
2 years	821	114	94	88	104	72	57	52	10	8	28	72	122
3 years	904	131	91	90	91	91	70	49	14	7	35	95	140
4 years	1096	160	115	118	114	110	89	50	11	10	34	116	169
Under 5 years	3842	543	421	415	424	376	228	199	53	49	121	371	587
5 to 9 years	10351	1697	1262	1034	1111	1052	651	257	29	60	312	1244	1642
10 to 14 years	1468	256	186	148	189	140	78	43	4	11	39	164	210
15 to 19 years	208	44	23	26	15	8	2	0	2	1	4	19	37
20 to 24 years	63	12	6	8	4	3	4	1	1	1	1	7	8
25 to 34 years	77	16	6	7	8	5	4	5	1	1	1	7	16
35 to 44 years	28	5	2	2	1	3	1	2	0	0	0	3	9
45 to 54 years	4	1	0	1	0	1	0	0	0	0	0	0	1
55 to 64 years	2	0	0	0	0	0	0	0	0	0	0	0	1
65 years and over	4	2	0	0	0	0	0	0	0	1	1	0	0
Age not stated	21	6	5	0	2	1	2	0	1	0	1	1	2
Total	16068	2582	1918	1636	1769	1596	1081	512	89	126	480	1816	2513

REPORTED CASES AND DEATHS FROM CHICKENPOX IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	197	1	194	1	391	2
1 year	329	0	301	0	630	0
2 years	400	0	421	0	821	0
3 years	463	1	441	0	904	1
4 years	576	0	520	0	1096	0
Under 5 years	1965	2	1877	1	3842	3
5 to 9 years	5266	0	5085	0	10351	0
10 to 14 years	744	0	724	0	1468	0
15 to 19 years	111	0	97	0	208	0
20 to 24 years	25	0	38	0	63	0
25 to 34 years	37	0	40	0	77	0
35 to 44 years	16	0	12	0	28	0
45 to 54 years	4	0	0	0	4	0
55 to 64 years	2	0	0	0	2	0
65 years and over	1	0	3	0	4	0
Age not stated	10	0	11	0	21	0
Total	8181	2	7887	1	16068	3

REPORTED CASES OF DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1940 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	8	1	1	1	1	0	0	0	0	0	0	1	2
1 year	17	0	5	0	3	4	1	1	0	0	0	2	1
2 years	22	1	4	1	1	3	1	1	3	0	1	3	1
3 years	23	3	2	3	0	2	2	3	2	1	1	5	4
4 years	27	1	3	1	2	2	0	3	1	1	3	8	2
Under 5 years	102	6	15	6	7	11	4	8	7	2	5	19	12
5 to 9 years	108	14	7	7	4	9	8	10	4	5	15	8	17
10 to 14 years	52	6	5	3	1	2	2	5	2	4	10	7	5
15 to 19 years	21	1	2	1	5	1	0	0	0	0	3	5	5
20 to 24 years	10	0	1	1	1	2	1	1	1	0	1	0	1
25 to 34 years	10	0	1	2	1	0	3	1	0	0	0	1	1
35 to 44 years	12	2	2	0	0	3	1	0	1	1	1	1	0
45 to 54 years	5	1	0	0	1	1	0	0	0	1	0	0	1
55 to 64 years	4	1	0	0	0	0	0	0	0	0	0	2	0
65 years and over	2	0	0	0	1	0	0	0	0	0	0	1	0
Age not stated	4	0	1	0	0	2	0	0	0	0	1	0	0
Total	330	31	34	20	21	31	19	25	15	13	38	40	45

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	3	0	5	0	8	0
1 year	0	6	11	1	17	1
2 years	16	2	6	0	22	2
3 years	15	3	13	1	28	4
4 years	16	2	11	0	27	2
Under 5 years	56	7	46	2	102	9
5 to 9 years	65	7	43	4	108	11
10 to 14 years	26	1	26	0	52	1
15 to 19 years	10	0	11	0	21	0
20 to 24 years	2	0	8	0	10	0
25 to 34 years	6	1	9	0	15	0
35 to 44 years	2	0	6	0	12	1
45 to 54 years	2	1	3	0	5	1
55 to 64 years	2	0	2	0	4	0
65 years and over	3	0	1	0	4	0
Age not stated	1	0	1	0	2	0
Total	174	17	156	6	330	23

REPORTED CASES OF DYSENTERY IN NEW JERSEY

For the Calendar Year 1940 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	1	0	0	0	0	0	0	0	0
1 year	2	0	0	0	0	0	0	1	0	0	0	0	1
2 years	2	0	0	0	1	0	0	0	0	0	0	0	1
3 years	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years	1	0	0	0	0	0	0	0	0	0	0	0	1
Under 5 years	6	0	0	0	1	1	0	0	1	0	0	0	3
5 to 9 years	6	0	0	1	0	0	1	0	0	0	0	0	4
10 to 14 years	1	0	0	0	0	0	0	0	1	0	0	0	0
15 to 19 years	5	0	0	0	0	0	0	1	1	0	1	2	0
20 to 24 years	3	1	1	0	0	0	0	0	0	1	0	0	0
25 to 34 years	2	0	0	0	0	0	1	1	0	0	0	0	0
35 to 44 years	11	3	0	0	1	0	1	3	2	0	0	0	0
45 to 54 years	0	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	1	1	0	0	0	0	0	0	0	0	0	0	0
65 years and over	5	1	0	1	0	0	0	1	1	1	1	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	40	6	1	1	2	2	0	2	4	4	5	4	9

REPORTED CASES AND DEATHS FROM DYSENTERY IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	1	0	1	0
1 year	1	0	1	0	2	0
2 years	2	0	0	0	2	0
3 years	0	0	0	0	0	0
4 years	1	0	0	0	1	0
Under 5 years	4	0	2	0	6	0
5 to 9 years	5	1	1	0	6	1
10 to 14 years	0	0	1	0	1	0
15 to 19 years	3	1	2	0	5	1
20 to 24 years	1	2	2	0	3	2
25 to 34 years	2	0	0	0	2	0
35 to 44 years	5	1	6	1	11	1
45 to 54 years	0	0	0	0	0	0
55 to 64 years	1	0	0	1	1	1
65 years and over	4	3	1	0	5	3
Age not stated	0	0	0	0	0	0
Total	25	8	15	1	40	9

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1940 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	2	0	0	1	0	1	0	0	0	0	0	0	0
1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years	2	0	0	1	0	0	0	0	0	0	0	1	0
4 years	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years	4	0	0	2	0	1	0	0	0	0	0	1	0
5 to 9 years	3	0	1	0	1	0	0	0	0	0	0	1	0
10 to 14 years	0	0	0	0	0	0	0	0	0	0	0	0	0
15 to 19 years	4	0	2	0	0	0	0	0	0	0	0	2	0
20 to 24 years	1	0	0	0	0	0	0	0	0	0	0	0	1
25 to 34 years	3	0	0	1	1	1	0	0	0	0	0	1	0
35 to 44 years	1	0	0	0	0	0	0	0	1	0	0	0	0
45 to 54 years	1	0	0	0	0	0	0	0	0	0	0	1	0
55 to 64 years	3	0	1	0	0	0	0	1	0	0	0	0	1
65 years and over	2	0	0	0	0	0	1	1	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	0	4	3	2	2	1	1	2	0	0	5	2

REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	2	0	0	0	2	0
1 year	0	0	0	0	0	0
2 years	0	0	0	0	0	0
3 years	1	0	1	0	2	0
4 years	0	0	0	0	0	0
Under 5 years	3	0	1	0	4	0
5 to 9 years	1	0	2	0	3	0
10 to 14 years	0	0	0	0	0	0
15 to 19 years	2	0	2	0	4	0
20 to 24 years	1	0	0	0	1	0
25 to 34 years	3	1	1	0	4	1
35 to 44 years	1	1	0	0	1	1
45 to 54 years	1	0	1	0	2	0
55 to 64 years	2	1	0	1	3	2
65 years and over	2	0	1	0	3	0
Age not stated	0	0	0	0	0	0
Total	15	3	7	1	22	4

REPORTED CASES OF GERMAN MEASLES IN NEW JERSEY

For the Calendar Year 1940 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	50	3	0	4	7	7	4	8	4	4	2	3	4
1 year	96	4	9	6	8	15	12	18	4	6	3	6	5
2 years	49	4	4	5	4	7	5	3	7	3	0	3	4
3 years	42	3	2	3	6	7	2	6	1	1	5	3	3
4 years	36	2	4	4	7	4	1	3	2	0	0	5	4
Under 5 years	273	16	19	22	32	40	24	38	13	14	10	20	20
5 to 9 years	225	14	19	19	34	49	31	10	7	4	9	8	21
10 to 14 years	65	5	7	4	8	16	11	1	2	2	1	2	6
15 to 19 years	37	2	3	0	3	12	11	1	0	1	0	1	3
20 to 24 years	11	0	1	1	2	3	0	0	0	0	0	1	1
25 to 34 years	11	0	1	0	4	3	0	0	1	0	0	1	1
35 to 44 years	1	0	0	0	0	0	0	1	0	0	0	1	0
45 to 54 years	1	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	0	0	0	0	0	0	0	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	2	0	0	0	0	2	0	0	0	0	0	0	0
Total	626	37	50	46	83	124	80	51	28	21	20	34	52

REPORTED CASES AND DEATHS FROM GERMAN MEASLES IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	26	0	24	0	50	0
1 year	51	0	45	0	96	0
2 years	20	0	22	0	42	0
3 years	19	0	23	0	42	0
4 years	20	0	16	0	36	0
Under 5 years	136	0	137	0	273	0
5 to 9 years	117	0	108	0	225	0
10 to 14 years	31	0	34	0	65	0
15 to 19 years	19	0	18	0	37	0
20 to 24 years	4	0	7	0	11	0
25 to 34 years	1	0	10	0	11	0
35 to 44 years	0	0	1	0	1	0
45 to 54 years	1	0	0	0	1	0
55 to 64 years	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0
Age not stated	2	0	0	0	2	0
Total	311	0	315	0	626	0

REPORTED CASES OF INFLUENZA IN NEW JERSEY

For the Calendar Year 1940 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	8	3	3	1	0	0	0	1	0	0	0	0	0
1 year	33	8	2	1	1	2	1	1	0	1	0	0	0
2 years	7	1	0	0	3	0	0	2	1	0	1	0	0
3 years	7	3	1	2	0	0	0	2	1	0	0	0	0
4 years	7	3	1	2	0	0	0	2	1	0	0	0	0
Under 5 years	41	10	7	6	4	3	1	3	3	1	2	1	0
5 to 9 years	36	9	8	6	5	2	1	0	1	1	2	1	0
10 to 14 years	27	8	4	3	1	0	1	0	1	1	1	0	0
15 to 19 years	28	9	6	2	1	2	1	0	1	1	1	0	1
20 to 24 years	30	6	7	4	2	2	3	1	1	0	0	2	3
25 to 34 years	59	20	14	14	1	5	2	1	0	0	0	4	4
35 to 44 years	90	24	28	8	4	1	0	1	0	1	0	1	9
45 to 54 years	74	16	34	13	3	1	2	4	0	2	4	0	6
55 to 64 years	43	15	10	6	4	0	1	0	0	0	2	5	5
65 years and over	38	10	14	5	4	2	1	0	0	1	0	1	4
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	466	126	132	67	32	21	16	6	8	7	9	9	33

REPORTED CASES AND DEATHS FROM INFLUENZA IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	3	8	5	6	8	14
1 year	3	2	3	9	6	11
2 years	3	4	7	1	13	5
3 years	6	1	1	1	7	2
4 years	2	1	5	0	7	1
Under 5 years	20	16	21	17	41	33
5 to 9 years	24	1	12	0	36	2
10 to 14 years	15	3	12	0	27	3
15 to 19 years	14	2	14	0	28	2
20 to 24 years	13	2	17	0	30	2
25 to 34 years	53	11	31	4	59	8
35 to 44 years	58	10	37	4	90	16
45 to 54 years	50	10	24	8	74	18
55 to 64 years	25	7	22	10	47	17
65 years and over	20	31	18	44	38	75
Age not stated	0	0	0	0	0	0
Total	258	87	208	89	466	176

REPORTED CASES OF LETHARGIC ENCEPHALITIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	0	0	0	1	0	0	0	0	0	0	0	0	0
1 year	2	0	0	1	0	0	0	0	0	0	0	0	0
2 years	0	0	0	1	0	0	0	0	0	0	0	0	0
3 years	4	0	0	0	0	0	0	2	0	1	0	0	1
4 years	1	0	0	0	0	1	0	0	0	0	0	0	0
Under 5 years	7	0	0	1	0	1	1	2	0	1	0	0	1
5 to 9 years	1	1	0	0	0	0	0	0	0	0	0	0	0
10 to 14 years	3	0	0	0	1	0	0	1	0	0	0	1	0
15 to 19 years	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24 years	1	0	0	0	0	0	0	0	0	1	0	0	0
25 to 34 years	1	0	0	0	0	0	0	0	0	0	1	0	0
35 to 44 years	0	0	0	0	0	0	0	0	0	0	0	0	0
45 to 54 years	5	1	0	0	2	0	0	0	0	1	0	1	0
55 to 64 years	2	0	0	0	0	0	1	0	0	1	0	0	0
65 years and over	1	0	0	0	0	0	0	1	0	1	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	2	0	1	3	1	2	3	1	5	0	2	1

REPORTED CASES AND DEATHS FROM LETHARGIC ENCEPHALITIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	2	0	0	0	2	0
2 years	0	0	0	0	0	0
3 years	1	0	3	1	4	1
4 years	0	0	1	0	1	0
Under 5 years	3	0	4	1	7	1
5 to 9 years	0	0	1	0	1	0
10 to 14 years	3	0	0	0	3	0
15 to 19 years	0	0	0	0	0	0
20 to 24 years	0	0	1	0	1	0
25 to 34 years	1	1	0	0	1	1
35 to 44 years	0	2	0	2	0	4
45 to 54 years	3	1	2	7	5	8
55 to 64 years	1	3	1	1	2	4
65 years and over	0	4	1	2	1	6
Age not stated	0	0	0	0	0	0
Total	11	11	10	13	21	24

REPORTED CASES OF MEASLES IN NEW JERSEY

For the Calendar Year 1940 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	373	19	12	32	50	68	62	41	23	16	17	13	20
1 year	879	18	7	39	112	183	218	116	41	15	23	38	60
2 years	1163	12	19	56	160	272	297	133	37	16	21	44	96
3 years	1320	9	9	67	196	262	352	193	45	13	11	55	108
4 years	1479	8	12	90	223	324	377	172	40	11	24	76	122
Under 5 years	5205	66	59	284	741	1109	1306	655	186	71	96	226	406
5 to 9 years	10463	30	173	794	1524	2630	2377	824	100	61	232	513	1005
10 to 14 years	1059	7	29	74	148	251	229	92	16	15	17	47	124
15 to 19 years	112	3	1	4	12	25	21	16	2	2	4	8	105
20 to 24 years	37	3	0	1	4	6	7	5	4	0	1	2	4
25 to 34 years	40	0	1	2	4	11	10	3	0	1	1	0	1
35 to 44 years	12	0	0	0	1	3	0	5	0	0	0	0	0
45 to 54 years	0	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	2	0	0	0	1	0	0	0	0	0	0	0	1
65 years and over	2	1	0	0	0	0	0	0	0	0	0	1	0
Age not stated	8	0	1	0	1	2	2	0	0	0	0	2	0
Total	16940	110	264	1159	2436	4047	4152	1600	308	154	353	799	1558

DEPARTMENT OF HEALTH

REPORTED CASES AND DEATHS FROM MEASLES IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year.....	187	0	188	1	375	1
1 year.....	439	1	440	0	879	1
2 years.....	620	3	543	0	1163	3
3 years.....	674	0	646	1	1320	1
4 years.....	754	1	725	1	1479	2
Under 5 years.....	2665	5	2640	3	5305	8
5 to 9 years.....	5393	0	5065	0	10458	0
10 to 14 years.....	557	0	502	0	1059	0
15 to 19 years.....	53	0	59	0	112	0
20 to 24 years.....	17	0	20	0	37	0
25 to 34 years.....	15	0	25	0	40	0
35 to 44 years.....	7	0	5	0	12	0
45 to 54 years.....	0	0	0	0	0	0
55 to 64 years.....	1	0	1	0	2	0
65 years and over.....	1	0	1	0	2	0
Age not stated.....	2	0	6	0	8	0
Total.....	8716	5	8224	3	16940	8

REPORTED CASES OF MUMPS IN NEW JERSEY

For the Calendar Year 1940 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.....	56	4	6	9	10	5	8	4	2	1	1	3	3
1 year.....	146	10	13	10	23	27	14	6	6	6	9	11	11
2 years.....	335	29	35	50	48	34	35	16	14	13	18	22	22
3 years.....	531	49	37	63	73	72	52	39	31	11	17	34	43
4 years.....	700	51	47	65	113	118	88	60	43	26	16	40	33
Under 5 years.....	1768	143	123	183	274	270	196	144	98	58	56	106	112
5 to 9 years.....	7495	651	639	860	1308	1303	814	335	114	123	306	487	515
10 to 14 years.....	2420	271	222	293	336	411	211	103	33	45	81	149	197
15 to 19 years.....	461	54	40	55	83	72	33	13	10	15	30	29	29
20 to 24 years.....	142	11	15	11	17	24	7	13	6	4	1	8	25
25 to 34 years.....	238	25	9	36	41	47	35	29	11	4	7	15	21
35 to 44 years.....	152	17	9	12	30	20	17	11	8	2	7	5	8
45 to 54 years.....	42	4	5	4	3	10	8	1	1	2	1	2	6
55 to 64 years.....	18	1	0	3	5	3	2	0	1	1	0	0	2
65 years and over.....	10	2	0	3	1	0	1	0	1	0	2	0	0
Age not stated.....	11	1	1	0	3	0	2	0	2	0	2	0	0
Total.....	12807	1220	1071	1474	2161	1815	669	293	249	476	804	915	915

REPORTED CASES AND DEATHS FROM MUMPS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year.....	32	0	24	1	56	1
1 year.....	71	0	75	0	146	0
2 years.....	183	0	152	0	335	0
3 years.....	306	0	225	0	531	0
4 years.....	356	0	244	0	600	0
Under 5 years.....	948	0	820	1	1768	1
5 to 9 years.....	4920	0	3475	0	7495	0
10 to 14 years.....	2053	0	1217	0	2420	0
15 to 19 years.....	226	0	235	0	461	0
20 to 24 years.....	54	0	88	0	142	0
25 to 34 years.....	103	0	185	0	288	0
35 to 44 years.....	70	0	82	0	152	0
45 to 54 years.....	19	0	23	0	42	0
55 to 64 years.....	4	0	14	0	18	0
65 years and over.....	6	0	4	1	10	1
Age not stated.....	5	0	6	0	11	0
Total.....	6663	0	6144	3	12807	3

LOCAL HEALTH ADMINISTRATION

REPORTED CASES OF PARATYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1940 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.....	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year.....	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years.....	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years.....	1	0	0	0	0	0	0	0	0	1	0	0	0
4 years.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years.....	1	0	0	0	0	0	0	0	0	1	0	0	0
5 to 9 years.....	1	0	0	0	0	0	0	0	0	1	0	0	0
10 to 14 years.....	1	0	0	0	0	0	0	0	0	0	0	0	1
15 to 19 years.....	2	0	0	0	0	0	0	0	0	0	0	2	0
20 to 24 years.....	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 34 years.....	2	0	0	0	0	0	0	0	0	0	1	0	1
35 to 44 years.....	1	0	0	0	1	0	0	0	0	0	0	0	0
45 to 54 years.....	4	0	0	1	0	1	1	0	1	0	1	0	0
55 to 64 years.....	3	0	0	1	0	1	1	0	0	0	0	0	0
65 years and over.....	2	0	0	0	0	0	0	0	2	0	2	0	0
Age not stated.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.....	17	0	0	2	1	2	2	1	2	2	3	2	2

REPORTED CASES AND DEATHS FROM PARATYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

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

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1940 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.....	362	31	34	36	55	54	25	15	12	5	10	31	54
1 year.....	232	33	24	22	32	38	15	5	6	0	7	15	35
2 years.....	151	18	14	15	24	26	11	3	4	2	4	11	16
3 years.....	132	17	11	26	22	18	11	4	4	0	3	5	11
4 years.....	80	8	8	15	15	8	4	0	3	2	3	3	8
Under 5 years.....	987	107	91	117	151	144	66	27	29	9	27	65	124
5 to 9 years.....	366	52	52	61	51	58	17	4	6	4	13	14	24
10 to 14 years.....	156	23	31	15	19	18	5	2	9	3	6	6	12
15 to 19 years.....	175	17	49	20	19	19	5	5	8	3	6	10	14
20 to 24 years.....	191	22	44	20	15	18	11	6	9	9	12	12	18
25 to 34 years.....	447	75	82	49	48	44	19	19	19	14	13	27	28
35 to 44 years.....	405	73	106	59	68	37	21	20	15	15	23	24	39
45 to 54 years.....	620	100	113	84	68	49	24	22	20	19	31	30	60
55 to 64 years.....	539	76	96	69	71	43	27	22	15	16	30	32	42
65 years and over.....	902	149	153	121	97	93	51	18	23	26	40	44	82
Age not stated.....	13	3	1	1	4	1	1	0	0	0	0	0	2
Total.....	4860	702	818	617	606	519	247	145	158	118	201	264	465

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	198	153	164	121	362	274
1 year	132	17	100	22	232	39
2 years	79	9	72	8	151	17
3 years	72	3	60	3	132	6
4 years	46	5	54	2	80	7
Under 5 years	527	187	430	156	957	343
5 to 9 years	206	4	160	7	366	11
10 to 14 years	85	9	70	12	155	21
15 to 19 years	111	7	64	14	175	21
20 to 24 years	119	7	72	10	191	17
25 to 34 years	260	32	187	35	447	67
35 to 44 years	304	71	191	41	495	112
45 to 54 years	413	166	207	70	620	236
55 to 64 years	845	170	194	101	539	271
65 years and over	467	379	435	387	902	766
Age not stated	9	0	4	0	13	0
Total	2846	1032	2014	833	4860	1866

REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years	3	1	0	0	0	0	0	1	0	0	0	0	0
3 years	11	0	0	0	0	0	0	2	2	6	1	0	0
4 years	7	0	1	0	0	0	0	2	2	1	1	0	0
Under 5 years	21	1	1	0	0	0	0	5	4	8	2	0	0
5 to 9 years	15	0	0	0	0	0	2	2	5	3	2	1	0
10 to 14 years	12	0	1	0	0	0	0	2	2	4	3	0	0
15 to 19 years	6	0	0	0	0	0	0	1	2	2	0	1	0
20 to 24 years	2	0	0	0	0	0	0	1	0	1	0	0	0
25 to 34 years	2	0	0	0	0	0	0	0	1	0	0	1	0
35 to 44 years	0	0	0	0	0	0	0	0	0	0	0	0	0
45 to 54 years	0	0	0	0	0	0	0	0	0	0	0	0	0
55 to 64 years	0	0	0	0	0	0	0	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	58	1	2	0	0	0	3	12	14	16	8	2	2

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	0	0	0	0	0	0
2 years	3	0	0	0	3	0
3 years	5	0	6	0	11	0
4 years	5	0	2	0	7	0
Under 5 years	13	0	8	0	21	0
5 to 9 years	10	1	5	1	15	2
10 to 14 years	9	2	3	0	12	2
15 to 19 years	6	1	0	0	6	1
20 to 24 years	1	0	1	0	2	0
25 to 34 years	1	0	1	0	2	0
35 to 44 years	0	0	0	0	0	0
45 to 54 years	0	0	0	0	0	0
55 to 64 years	0	0	0	1	0	1
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	40	4	18	2	58	6

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1940 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	38	2	6	7	6	4	1	2	0	0	2	2	6
1 year	171	16	26	28	27	26	10	14	1	1	2	9	11
2 years	405	38	54	87	66	56	21	16	1	7	10	18	31
3 years	615	77	77	110	98	82	48	30	13	11	11	19	39
4 years	695	76	114	128	122	88	35	25	6	10	21	23	48
Under 5 years	1924	209	277	360	319	256	115	87	20	29	46	71	135
5 to 9 years	4373	562	733	754	926	786	347	95	39	65	134	186	251
10 to 14 years	2202	238	362	386	391	384	130	44	10	18	47	81	111
15 to 19 years	522	59	102	91	92	89	22	3	6	6	9	16	27
20 to 24 years	177	18	38	29	28	25	12	5	2	0	3	9	8
25 to 34 years	192	28	45	27	25	23	13	8	0	2	5	2	14
35 to 44 years	108	13	15	18	21	15	6	2	1	1	2	4	10
45 to 54 years	23	4	4	6	3	2	3	0	1	0	0	1	4
55 to 64 years	6	1	0	0	1	1	0	0	0	0	0	0	1
65 years and over	2	0	1	0	0	0	0	0	0	0	0	0	1
Age not stated	29	0	8	4	10	5	1	0	0	0	0	0	1
Total	10063	1132	1588	1675	1816	1586	649	244	79	121	246	370	562

REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	20	2	13	0	33	2
1 year	99	0	72	0	171	0
2 years	230	1	175	1	405	2
3 years	316	2	299	0	615	2
4 years	375	1	320	1	695	2
Under 5 years	1040	6	884	2	1924	8
5 to 9 years	2373	4	2505	1	4878	5
10 to 14 years	1682	0	1120	1	2202	1
15 to 19 years	266	0	256	0	522	0
20 to 24 years	52	0	125	0	177	0
25 to 34 years	63	0	129	0	192	0
35 to 44 years	39	2	69	0	108	2
45 to 54 years	10	1	18	0	28	1
55 to 64 years	2	0	1	0	3	0
65 years and over	2	0	0	0	2	0
Age not stated	13	0	16	0	29	0
Total	4945	13	5123	4	10068	17

REPORTED CASES OF TRICHINOSIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Months

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

REPORTED CASES AND DEATHS FROM TRICHINOSIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	0	0	0	0	0	0
2 years	0	0	0	0	0	0
3 years	0	0	0	0	0	0
4 years	0	0	0	0	0	0
Under 5 years	0	0	0	0	0	0
5 to 9 years	1	0	4	0	5	0
10 to 14 years	2	0	3	0	5	0
15 to 19 years	2	0	0	1	2	1
20 to 24 years	5	1	1	0	6	1
25 to 34 years	1	0	5	0	6	0
35 to 44 years	1	0	1	0	2	0
45 to 54 years	1	0	2	0	3	0
55 to 64 years	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	17	1	16	1	33	2

REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1940 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	12	0	0	1	1	1	1	3	2	1	0	2	0	1
1 year	11	2	0	1	1	0	0	0	1	0	0	2	1	3
2 years	7	0	2	0	1	0	0	0	0	0	0	0	0	1
3 years	11	0	1	0	1	3	0	0	2	1	1	1	1	0
4 years	6	0	3	0	0	1	0	1	0	0	0	1	1	0
Under 5 years	47	2	6	2	4	6	3	5	5	1	3	4	6	3
5 to 9 years	44	2	2	4	4	9	2	4	7	4	2	1	3	3
10 to 14 years	89	4	8	6	5	12	12	13	8	7	3	4	7	7
15 to 19 years	270	10	19	23	27	29	30	25	29	16	17	22	23	23
20 to 24 years	472	33	34	47	52	36	50	37	43	33	47	28	32	32
25 to 34 years	86	63	56	107	70	79	61	62	55	58	56	52	52	52
35 to 44 years	670	58	49	57	70	58	79	56	47	53	56	40	46	46
45 to 54 years	621	57	33	68	77	59	58	65	56	34	44	48	34	34
55 to 64 years	449	46	44	35	61	46	36	41	33	18	31	24	32	32
65 years and over	249	31	19	19	23	32	26	20	20	11	17	19	12	12
Age not stated	6	1	0	1	0	2	0	1	0	0	1	0	1	0
Total	3702	300	277	329	430	357	377	317	311	232	278	247	247	247

REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	4	4	5	6	12	10
1 year	6	7	8	6	11	13
2 years	4	2	3	3	7	5
3 years	4	4	7	5	11	9
4 years	3	2	3	1	6	3
Under 5 years	21	19	26	21	47	40
5 to 9 years	19	3	25	5	44	8
10 to 14 years	39	2	50	13	89	15
15 to 19 years	101	22	169	44	270	66
20 to 24 years	182	62	290	86	472	148
25 to 34 years	375	191	410	166	785	357
35 to 44 years	429	248	241	126	670	374
45 to 54 years	460	261	161	70	621	331
55 to 64 years	346	232	103	63	449	295
65 years and over	166	139	83	62	249	191
Age not stated	6	0	2	0	8	0
Total	2143	1179	1659	646	3702	1825

REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1940 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	0
1 year	2	0	0	0	0	0	0	1	1	0	0	0	0	0
2 years	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3 years	1	0	0	0	0	0	0	0	1	0	0	0	0	0
4 years	2	0	0	0	1	1	0	0	0	0	0	0	0	0
Under 5 years	7	0	1	0	1	1	0	2	2	0	0	0	0	0
5 to 9 years	11	0	0	1	1	0	1	4	1	1	1	1	0	0
10 to 14 years	15	1	0	1	0	1	1	4	3	0	0	3	1	1
15 to 19 years	11	0	0	0	1	1	0	2	4	1	0	1	1	1
20 to 24 years	14	1	0	0	2	0	2	2	4	1	2	0	0	0
25 to 34 years	19	0	1	2	2	0	1	3	4	2	2	0	2	2
35 to 44 years	15	0	0	0	4	1	1	2	4	2	1	0	0	0
45 to 54 years	13	0	0	1	1	0	1	3	4	1	1	1	0	0
55 to 64 years	2	1	0	1	0	0	0	0	0	0	0	0	0	0
65 years and over	1	0	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	0
Total	108	3	2	6	12	4	7	22	26	8	7	6	5	5

REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1940 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	1	0	0	0	1	0
2 years	1	0	0	0	1	0
3 years	1	0	0	0	1	0
4 years	2	0	0	0	2	0
Under 5 years	6	0	1	0	7	0
5 to 9 years	7	0	4	1	11	1
10 to 14 years	12	2	3	0	15	2
15 to 19 years	8	0	3	0	11	0
20 to 24 years	9	1	5	1	14	2
25 to 34 years	8	1	11	1	19	2
35 to 44 years	6	1	4	0	10	1
45 to 54 years	8	2	5	1	13	3
55 to 64 years	0	0	2	0	2	0
65 years and over	0	0	1	0	1	0
Age not stated	0	0	0	0	0	0
Total	64	7	44	4	108	11

REPORTED CASES OF UNDULANT FEVER IN NEW JERSEY

For the Calendar Year 1940 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years	1	0	0	0	0	0	1	0	0	0	0	0	0	0
3 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years	1	0	0	0	0	0	1	0	0	0	0	0	0	0
5 to 9 years	2	0	0	0	0	0	0	1	0	0	1	0	0	0
10 to 14 years	2	0	1	0	0	0	0	1	0	0	0	0	0	0
15 to 19 years	4	2	0	0	0	0	1	0	0	0	0	0	0	0
20 to 24 years	7	1	0	0	1	0	1	1	0	2	1	0	0	0
25 to 34 years	18	1	1	2	1	2	0	3	2	4	1	1	1	1
35 to 44 years	20	1	0	1	2	0	4	2	1	2	4	2	2	2
45 to 54 years	15	0	1	0	1	0	2	1	3	0	0	0	0	0
55 to 64 years	4	0	0	0	1	0	1	1	0	1	0	0	0	0
65 years and over	3	0	0	0	1	0	0	0	0	0	1	0	0	1
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	76	5	3	3	6	9	5	8	7	9	10	5	6	6

REPORTED CASES AND DEATHS FROM UNDULANT FEVER IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	0	0	0	0	0	0
2 years	1	0	0	0	1	0
3 years	0	0	0	0	0	0
4 years	0	0	0	0	0	0
Under 5 years	1	0	0	0	1	0
5 to 9 years	2	0	0	0	2	0
10 to 14 years	1	0	1	0	2	0
15 to 19 years	2	0	2	0	4	0
20 to 24 years	5	0	2	0	7	0
25 to 34 years	12	2	6	0	18	2
35 to 44 years	11	0	9	0	20	0
45 to 54 years	9	0	6	0	15	0
55 to 64 years	0	0	2	0	2	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	45	2	31	0	76	2

REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1940 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	313	24	18	15	34	28	13	24	18	24	39	41	40
1 year	453	42	27	27	40	31	30	38	47	38	45	42	42
2 years	589	46	39	42	37	37	52	51	66	47	68	77	77
3 years	578	40	27	42	39	41	46	45	57	64	52	62	63
4 years	647	45	36	30	57	58	34	54	63	59	56	87	68
Under 5 years	2585	197	135	153	212	195	160	213	235	259	232	303	290
5 to 9 years	2429	216	166	186	234	189	125	155	133	168	235	355	267
10 to 14 years	339	39	16	20	30	29	17	28	17	21	31	47	44
15 to 19 years	26	1	0	2	4	2	2	2	0	2	5	3	3
20 to 24 years	5	0	1	0	0	0	2	5	4	2	0	1	1
25 to 34 years	24	4	1	2	1	0	9	2	0	1	0	0	1
35 to 44 years	7	0	0	1	0	0	2	1	1	0	0	2	1
45 to 54 years	7	1	3	0	0	1	0	0	0	0	2	0	0
55 to 64 years	1	0	0	0	0	0	0	1	0	0	0	0	0
65 years and over	2	0	0	0	0	0	1	1	0	0	0	0	0
Age not stated	12	2	0	2	1	3	1	0	0	0	3	0	0
Total	5438	460	322	366	482	421	312	404	392	453	605	714	607

REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1940 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	156	9	162	6	318	15
1 year	216	3	237	1	453	4
2 years	269	0	329	2	598	2
3 years	283	1	290	1	573	2
4 years	319	0	328	0	647	0
Under 5 years	1239	13	1346	10	2585	23
5 to 9 years	1167	0	1262	0	2429	0
10 to 14 years	180	1	159	0	339	1
15 to 19 years	14	0	12	0	26	0
20 to 24 years	5	0	4	0	9	0
25 to 34 years	1	0	19	0	20	0
35 to 44 years	1	0	6	0	7	0
45 to 54 years	2	0	5	0	7	0
55 to 64 years	0	0	1	0	1	0
65 years and over	0	0	1	0	1	0
Age not stated	7	0	5	0	12	0
Total	2618	14	2820	10	5438	24

REPORTED CASES AND DEATHS FROM CHICKENPOX AND DIPHTEHRIA BY COUNTIES FOR 1940

COUNTIES	CHICKENPOX			DIPHTEHRIA				
	Cases per 100,000	Population	Deaths	Cases per 100,000	Population	Deaths	Deaths per 100,000	Percent Fatality
Atlantic	327	263.49	0	2	1.61	0	0	.....
Bergen	2194	534.08	1	33	8.03	2	0.48	6.06
Burlington	209	215.24	0	2	2.06	1	1.03	50.00
Camden	544	212.65	0	45	17.59	0	.....	.....
Cape May	83	304.50	0	0	.....	0	.....	.....
Cumberland	48	65.48	0	2	2.73	0	.....	.....
Essex	5471	653.33	0	10	1.19	1	0.12	10.00
Gloucester	97	134.16	0	5	6.91	0	.....	.....
Hudson	1097	168.25	1	143	21.93	18	2.76	12.58
Hunterdon	32	86.95	0	2	6.43	0	.....	.....
Mercer	315	159.41	0	3	1.52	0	.....	.....
Middlesex	285	131.21	0	7	3.22	0	.....	.....
Monmouth	819	506.80	0	3	1.85	1	0.62	33.33
Morris	1065	844.56	0	7	5.55	0	.....	.....
Ocean	104	275.13	0	2	5.29	0	.....	.....
Passaic	1195	386.10	0	56	18.09	0	.....	.....
Salem	32	75.47	0	0	.....	0	.....	.....
Somerset	149	199.73	0	0	.....	0	.....	.....
Sussex	63	212.12	1	0	.....	0	.....	.....
Union	1778	540.69	0	6	1.82	0	.....	.....
Warren	123	245.02	0	1	1.99	0	.....	.....
Institutions	33	.....	0	1	.....	0	.....	.....
State	16068	385.96	3	330	7.92	23	0.55	6.97

REPORTED CASES AND DEATHS FROM DYSENTERY, TRACHOMA, OPHTHALMIA NEONATORUM AND PARATYPHOID FEVER BY COUNTIES FOR 1940

COUNTIES	Dysentery		Trachoma		Ophthalmia Neonatorum		Paratyphoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Atlantic	0	1	1	0	1	0	1	0
Bergen	3	1	0	0	0	0	5	1
Burlington	1	0	0	0	0	0	0	0
Camden	0	0	1	0	1	0	1	0
Cape May	1	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0
Essex	2	1	0	0	123	0	1	0
Gloucester	0	0	0	0	0	0	1	0
Hudson	1	2	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0
Mercer	0	0	0	0	0	0	3	0
Middlesex	1	0	0	0	0	0	1	0
Monmouth	6	1	0	0	0	0	0	0
Morris	0	0	0	0	1	0	0	0
Ocean	0	0	0	0	0	0	0	0
Passaic	2	1	1	0	0	0	1	0
Jalena	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	1	0
Sussex	0	0	0	0	0	0	0	0
Union	3	1	1	0	0	0	1	0
Warren	0	1	0	0	0	0	0	0
Institutions	20	0	0	0	0	0	0	0
State	40	9	4	0	131	0	17	1

REPORTED CASES AND DEATHS FROM INFLUENZA AND PNEUMONIA
 BY COUNTIES FOR 1940

COUNTIES	INFLUENZA			PNEUMONIA				
	Cases	Cases per 100,000 Population	Deaths	Deaths per 100,000 Population	Cases	Deaths		
Atlantic	2	1.61	6	4.83	44	35.45	93	74.94
Bergen	12	2.92	6	1.46	438	105.40	142	34.56
Burlington	8	8.24	9	9.27	96	98.86	41	42.22
Camden	25	9.77	21	8.21	338	132.13	148	57.85
Cape May	26	89.96	0	.....	13	44.93	24	83.04
Cumberland	5	6.82	10	13.64	79	107.77	40	54.57
Essex	119	14.21	26	3.10	2285	272.87	299	35.70
Gloucester	0	.....	6	8.30	34	47.02	42	58.09
Hudson	97	14.87	19	2.91	339	51.99	298	45.70
Hunterdon	2	5.43	5	13.58	35	95.11	20	54.34
Mercer	10	5.06	11	5.56	176	89.07	102	51.62
Middlesex	0	.....	3	1.33	111	51.10	79	36.37
Monmouth	5	3.09	8	4.95	132	81.68	72	44.55
Morris	9	7.13	10	7.93	132	104.68	47	37.27
Ocean	0	.....	1	2.64	6	15.87	27	71.43
Passaic	68	21.97	9	2.90	85	27.46	137	44.26
Salem	1	2.36	4	9.43	15	35.37	26	61.32
Somerset	58	77.74	3	4.02	125	167.56	23	37.53
Sussex	1	3.36	1	3.36	44	148.15	22	74.07
Union	16	4.86	13	3.95	236	71.76	141	42.87
Warren	0	.....	5	9.96	25	49.80	37	73.70
Institutions	2	.....	0	.....	77	.....	.....	.....
State	466	11.19	176	4.22	4860	116.74	1865	44.80

 REPORTED CASES AND DEATHS FROM MALARIA AND EPIDEMIC
 CEREBROSPINAL MENINGITIS BY COUNTIES FOR 1940

COUNTIES	MALARIA			EPIDEMIC CEREBROSPINAL MENINGITIS			
	Cases	Cases per 100,000 Population	Deaths	Cases	Deaths	Percent	Fatality
Atlantic	1	0.80	0	0	0	.....	.....
Bergen	3	0.73	0	1	0.24	100.00	.....
Burlington	0	.....	0	0	0	.....	.....
Camden	1	0.39	0	0	0	.....	.....
Cape May	0	.....	0	0	0	.....	.....
Cumberland	0	.....	0	0	0	.....	.....
Essex	5	0.59	0	9	1.07	1	11.11
Gloucester	0	.....	0	0	0	.....	.....
Hudson	0	.....	0	5	0.76	1	20.00
Hunterdon	0	.....	0	0	0	.....	.....
Mercer	0	.....	0	1	0.50	1	100.00
Middlesex	1	0.46	0	0	0	.....	.....
Monmouth	0	.....	0	0	0	.....	.....
Morris	0	.....	0	1	0.79	0	.....
Ocean	0	.....	0	0	0	.....	.....
Passaic	1	0.32	0	0	0	.....	.....
Salem	1	2.36	0	0	0	.....	.....
Somerset	0	.....	0	0	0	.....	.....
Sussex	0	.....	0	0	0	.....	.....
Union	2	0.61	0	4	1.21	0	.....
Warren	0	.....	0	0	0	.....	.....
Institutions	0	.....	0	1	0	.....	.....
State	15	0.36	0	22	0.53	4	18.18

 REPORTED CASES AND DEATHS FROM MEASLES AND GERMAN MEASLES
 BY COUNTIES FOR 1940

COUNTIES	MEASLES				GERMAN MEASLES		
	Cases	Cases per 100,000 Population	Deaths	Deaths per 100,000 Population	Percent Fatality	Cases	Deaths
Atlantic	57	45.93	0	.....	.....	10	8.06
Bergen	673	163.82	0	.....	.....	87	21.13
Burlington	34	35.01	0	.....	.....	4	4.12
Camden	777	303.75	0	.....	.....	18	7.03
Cape May	19	65.74	0	.....	.....	0	.....
Cumberland	26	35.47	1	1.36	3.84	0	.....
Essex	9274	1107.47	5	0.59	0.05	287	34.27
Gloucester	39	53.94	0	.....	.....	1	1.38
Hudson	1831	280.83	1	0.15	0.05	7	1.07
Hunterdon	11	29.89	0	.....	.....	0	.....
Mercer	52	26.31	0	.....	.....	6	3.03
Middlesex	437	201.19	0	.....	.....	12	5.52
Monmouth	146	90.34	0	.....	.....	21	12.99
Morris	444	352.10	0	.....	.....	27	21.41
Ocean	23	74.07	0	.....	.....	2	5.29
Passaic	315	101.77	0	.....	.....	22	7.11
Salem	8	18.86	0	.....	.....	4	9.43
Somerset	92	123.32	0	.....	.....	18	24.13
Sussex	123	414.14	0	.....	.....	10	33.67
Union	2532	769.54	1	0.30	0.04	90	27.36
Warren	19	37.85	0	.....	.....	0	.....
Institutions	3	.....	0	.....	.....	0	.....
State	16940	406.91	8	0.19	0.04	626	15.03

 REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS
 AND SCARLET FEVER BY COUNTIES FOR 1940

COUNTIES	ACUTE ANTERIOR POLIOMYELITIS			SCARLET FEVER				
	Cases	Cases per 100,000 Population	Deaths	Cases	Deaths	Percent Fatality	Deaths per 100,000 Population	
Atlantic	2	1.61	1	0.80	76	63.66	0	.....
Bergen	11	2.67	0	.....	1013	246.89	2	0.48
Burlington	0	.....	0	.....	117	120.49	1	1.03
Camden	3	1.17	3	1.17	499	195.07	2	0.73
Cape May	0	.....	0	.....	92	318.34	1	3.46
Cumberland	0	.....	0	.....	61	83.22	0	.....
Essex	15	1.79	0	.....	1499	179.00	0	.....
Gloucester	2	2.76	1	1.38	93	128.63	0	.....
Hudson	2	0.30	0	.....	2266	347.54	4	0.61
Hunterdon	1	2.71	0	.....	49	193.15	0	.....
Mercer	4	2.02	0	.....	345	174.59	1	0.50
Middlesex	1	0.46	0	.....	309	142.26	0	.....
Monmouth	2	1.23	0	.....	611	378.09	3	1.85
Morris	3	2.88	1	0.79	319	252.97	0	.....
Ocean	0	.....	0	.....	47	124.34	0	.....
Passaic	1	0.32	0	.....	1593	514.70	2	0.64
Salem	0	.....	0	.....	64	127.36	0	.....
Somerset	1	1.84	0	.....	143	191.69	0	.....
Sussex	0	.....	0	.....	41	138.04	0	.....
Union	10	3.04	0	.....	775	235.63	1	0.30
Warren	0	.....	0	.....	48	95.61	0	.....
Institutions	0	.....	0	.....	15	.....	0	.....
State	58	1.39	6	0.14	10068	241.84	17	0.41

DEPARTMENT OF HEALTH

REPORTED CASES AND DEATHS FROM ROCKY MOUNTAIN SPOTTED FEVER
BY COUNTIES FOR 1940

COUNTIES	Cases	Cases per 100,000 Pop.	Deaths	Deaths Per 100,000 Pop.
Atlantic	1	0.80	0	.....
Bergen	0	.....	0	.....
Burlington	2	2.06	0	.....
Camden	0	.....	0	.....
Cape May	0	.....	0	.....
Cumberland	1	1.36	1	1.36
Essex	1	0.12	1	0.12
Gloucester	1	1.38	1	1.38
Hudson	0	.....	0	.....
Hunterdon	0	.....	0	.....
Mercer	0	.....	0	.....
Middlesex	0	.....	0	.....
Monmouth	0	0.62	0	.....
Morris	0	.....	0	.....
Ocean	3	7.93	0	.....
Passaic	0	.....	0	.....
Salem	1	2.86	0	.....
Somerset	0	.....	0	.....
Sussex	0	.....	0	.....
Union	0	.....	0	.....
Warren	0	.....	0	.....
Institutions	1	.....	0	.....
State	12	0.29	3	0.07

REPORTED CASES AND DEATHS FROM SMALLPOX AND TUBERCULOSIS
BY COUNTIES FOR 1940

COUNTIES	SMALLPOX				TUBERCULOSIS				
	Cases	Cases per 100,000 Pop.	Deaths	Deaths per 100,000 Pop.	Cases	Cases per 100,000 Pop.	Deaths	Deaths per 100,000 Pop.	Percent Fatality
Atlantic	0	.....	0	.....	123	103.14	60	48.35	46.87
Bergen	0	.....	0	.....	212	51.60	133	32.37	62.73
Burlington	0	.....	0	.....	60	61.79	42	43.25	70.00
Camden	0	.....	0	.....	157	61.37	92	35.96	58.60
Cape May	0	.....	0	.....	17	58.82	6	20.76	35.29
Cumberland	0	.....	0	.....	47	64.12	27	36.93	57.44
Essex	0	.....	0	.....	843	100.67	473	56.48	55.11
Gloucester	0	.....	0	.....	36	49.79	21	29.04	58.33
Hudson	0	.....	0	.....	632	96.93	324	49.69	51.26
Hunterdon	0	.....	0	.....	20	54.34	11	29.89	55.00
Mercer	0	.....	0	.....	189	95.64	127	64.27	67.19
Middlesex	0	.....	0	.....	198	91.16	92	42.35	46.46
Monmouth	0	.....	0	.....	117	72.40	75	46.41	64.10
Morris	0	.....	0	.....	79	62.65	42	33.80	53.16
Ocean	0	.....	0	.....	25	66.13	18	47.62	72.00
Passaic	0	.....	0	.....	271	87.56	119	38.45	43.91
Salem	0	.....	0	.....	17	40.09	4	9.43	25.53
Somerset	0	.....	0	.....	61	31.77	24	32.17	39.34
Sussex	0	.....	0	.....	20	67.34	4	13.47	20.00
Union	0	.....	0	.....	224	68.10	115	34.96	51.34
Warren	0	.....	0	.....	53	105.57	16	31.37	30.19
Institutions	0	.....	0	.....	296	.....	.....	.....	.....
State	0	.....	0	.....	3702	88.92	1825	43.33	49.29

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM TYPHOID FEVER AND WHOOPING COUGH
BY COUNTIES FOR 1940

COUNTIES	TYPHOID FEVER				WHOOPING COUGH			
	Cases	Cases per 100,000 Population	Deaths	Deaths per 100,000 Population	Cases	Cases per 100,000 Population	Deaths	Deaths per 100,000 Population
Atlantic	11	8.86	1	0.80	115	92.66	1	0.80
Bergen	5	1.21	0	.....	838	216.16	2	0.48
Burlington	11	11.33	0	.....	26	26.77	1	1.03
Camden	11	4.30	0	.....	162	63.33	0	.....
Cape May	0	.....	0	.....	85	294.11	1	3.46
Cumberland	1	1.36	0	.....	19	25.92	1	1.36
Essex	12	1.43	1	0.12	3166	253.65	4	0.47
Gloucester	0	.....	1	1.38	68	94.05	1	1.38
Hudson	3	0.46	2	0.30	353	54.14	2	0.30
Hunterdon	2	5.43	0	.....	16	43.48	0	.....
Mercer	24	12.14	2	1.01	166	84.01	1	0.50
Middlesex	7	3.22	2	0.92	103	47.42	1	0.46
Monmouth	3	1.85	1	0.62	57	35.27	2	1.23
Morris	0	.....	0	.....	191	151.46	0	.....
Ocean	0	.....	0	.....	22	58.20	1	2.64
Passaic	5	1.61	0	.....	458	147.98	3	0.97
Salem	0	.....	0	.....	11	25.94	0	.....
Somerset	2	2.68	0	.....	79	105.90	0	.....
Sussex	3	10.10	0	.....	41	138.04	0	.....
Union	6	1.82	1	0.30	378	114.93	1	0.30
Warren	0	.....	0	.....	24	47.81	2	3.98
Institutions	2	.....	0	.....	10	.....	0	.....
State	108	2.59	11	0.26	5438	130.62	24	0.57

REPORTED CASES AND DEATHS FROM MUMPS, LETHARGIC ENCEPHALITIS,
UNDULANT FEVER, TETANUS AND TRICHINOSIS
BY COUNTIES FOR 1940

COUNTIES	Mumps		Lethargic Encephalitis		Undulant Fever		Tetanus		Trichinosis	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Atlantic	13	1	1	2	1	0	1	0	0	0
Bergen	1475	0	0	0	4	0	1	0	2	0
Burlington	101	0	0	0	3	0	1	0	0	0
Camden	67	1	1	1	2	0	0	0	0	0
Cape May	9	0	0	0	0	0	0	0	0	0
Cumberland	4	0	0	0	1	0	0	1	11	1
Essex	6396	1	19	4	3	1	1	0	7	1
Gloucester	2	0	0	0	3	0	0	0	0	0
Hudson	1048	0	1	3	2	0	1	0	6	0
Hunterdon	18	0	0	0	1	0	0	0	0	0
Mercer	273	0	0	1	3	0	2	0	0	0
Middlesex	745	0	2	0	4	1	0	0	3	0
Monmouth	784	0	0	3	9	0	2	1	1	0
Morris	358	0	0	0	12	0	0	0	1	0
Ocean	49	0	0	0	2	0	0	0	0	0
Passaic	514	0	0	3	0	0	0	0	1	0
Salem	2	0	0	1	2	0	0	0	0	0
Somerset	54	0	1	1	4	0	1	0	0	0
Sussex	215	0	0	0	7	0	0	0	0	0
Union	645	0	5	5	4	0	0	0	1	0
Warren	26	0	0	0	4	0	0	0	0	0
Institutions	9	0	0	0	0	0	0	0	0	0
State	12807	3	21	24	76	2	10	3	33	2

DEPARTMENT OF HEALTH

REPORTED CASES AND DEATHS FROM MISCELLANEOUS DISEASES
FOR THE YEAR 1940

	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anthrax	13	1	1	1	14	2
Malaria	6	0	9	0	15	0
Ophthalmia, Neonatorum	69	0	62	0	131	0
Rabies	4	4	0	0	4	4
Rocky Mountain Spotted Fever	8	2	4	1	12	3
Streptococic Sore Throat	62	19	85	11	147	30
Smallpox	0	0	0	0	0	0
Tularemia	1	0	1	1	2	1
Typhus Fever	2	0	1	0	3	0

Report of the Division of Venereal Disease Control
For the Year Ending June 30, 1941

By DANIEL BERGSMAN, M.D., CHIEF

During the year 1940-41 the program and activities of the Division of Venereal Disease Control have been expanded and intensified. Newer knowledge concerning the diagnosis and therapy of gonorrhoea makes it very likely that future public health efforts can significantly reduce the prevalence of this disease. Culturing of the gonococcus for diagnostic purposes and for test for cure has been started in this State, and some experimental work has been carried on to discover the most practical method of getting these germs from the infected patient to the laboratory for culture purposes before death overtakes these very susceptible organisms, thus making the culturing impossible.

The intensive five-day mapharsen drip therapy for persons with early syphilis has been used in several large hospitals of this State with very gratifying results to date. It is truly of great public health significance that it is possible to place early infectious syphilitics in a hospital for less than one week and give them that amount of treatment which will cure approximately eighty percent and make most of the remaining group permanently non-infectious to others.

CASE FINDING AMONG DRAFTEES

Progress has also been made in syphilis control by establishing greatly increased laboratory facilities for serological tests for reagin at three Health Department laboratories in Paterson, Newark, and Camden. These new facilities permitted an extension of the mass blood testing technique as a case-finding procedure and proved highly useful when the Selective Service Act was passed, which led to the blood testing of every young man physically examined under that Act. Of the first 60,897 tests, 911 were positive (1.5%); and 429 were doubtful (0.7%). This program included complete follow-up by mail or visitation to each draftee found to have a positive or doubtful blood test, or a positive spread for gonorrhoea. Contact tracing interviews were also conducted at the Induction Board with each person rejected because of a venereal disease.

EXTRA CANTONMENT ACTIVITIES

This Division is actively cooperating with local agencies attempting to reduce prostitution and promiscuity throughout the State, but particularly in those areas surrounding Fort Dix where the greatest concentration of service men exists. Repeated investigations are made concerning new persons or groups who come to live in the area and concerning new buildings which are constructed there, with particular emphasis on taverns and other locations where food or liquors are sold. A few prostitutes have been apprehended, convicted in the courts, and subsequently removed from the area.

Careful records are being kept concerning sources of infection as reported during interviews of diseased service men on the Fort itself. In this manner it is possible to know which towns or cities present the relatively greater problem for venereal disease control among the service men, and it also helps to indicate promptly any shift in the locations where infections are acquired. Further details of these important activities will be found later in the report under the heading, "The Epidemiologic and Follow-up Program".

BLOOD TESTS FOR SYPHILIS

An index of the growing interest in the diagnosis of syphilis is the amount of blood testing going on in the State for purposes of a non-military nature. Ninety-two laboratories have been approved for making premarital and prenatal tests. In addition, there are at least 25 others that have not been approved, or have not asked for approval.

Twice each year the Division asks for reports of numbers of blood tests for syphilis made at all the laboratories in the State. These figures do not go back far enough to indicate the recent rapid increase in this work, except for the State Health Department Laboratory. In the calendar year 1935, there were 49,762 such tests made by our Department; in 1940 there were 214,183.

Numbers of tests in 85 laboratories in the calendar year 1940 are set forth below, further details about which will be found in the pages that follow.

Premarital	87,622
Prenatal	52,940
Total (all purposes)	534,729

PREMARITAL LAW

Three years have gone by since the passage of the law which requires premarital blood tests and certificates from physicians indicating freedom

from potentially communicable syphilis. The efforts of this Division to take advantage of the opportunities thus offered have been continued. We have seen no other state's reports that indicate as complete knowledge as ours about the persons who are thus discovered to have syphilis, i.e., what they decided about getting married and what they did about taking treatment. As a case-finder, these premarital tests are good because it is not likely that many people have such tests if they already know they have early syphilis. There is reason to believe that a considerable number of couples have tests made without declaring them to be premarital so, if the tests prove to be positive, a great deal of embarrassment is avoided. The net results of the law are thus probably even greater than the following figures indicate. It is of interest to note that many more premarital tests are reported by laboratories than there are people who get married in the state.

PREMARITAL BLOOD TESTS AT APPROVED LABORATORIES IN NEW JERSEY

	Total	Positive	% Positive	Persons Married
1938—(July-Dec.)	30,801	426	1.38	28,912
1939—(Full year)	68,021	928	1.36	63,790
1940—(Full year)	87,622	1120	1.28	82,118
1941—(Jan.-June)	46,640	622	1.33	41,830

Although no breakdown of the tests into whites and Negroes has been made during the past year, there is no reason to believe that any marked changes have occurred from the figures previously reported, i.e., 0.6% of white persons tested are positive; 9.0% of the Negroes.

During the past year the laboratories of all State Health Departments, including the District of Columbia and territories, were approved for premarital tests, which will result in greater convenience to some non-residents who plan to be married in New Jersey.

Numerous reports have been published about our experiences with the Premarital Law and the results of our questionnaires which go to all physicians whose clients have positive premarital tests made at the State, Camden, Newark, and Hudson and Bergen County laboratories. Some 1600 persons have been followed by mail by this questionnaire system in the course of two and one-half years. During this time, the physicians have answered slightly more than 90% of our inquiries. Complete details of these figures are on file, and only the high spots are reported below:

1. Much larger percentages of the persons with positive blood tests are now being given the marriage certificates by physicians than shortly after the law was passed (in the first year—43%; in 1940—68%).

2. Fewer persons who are refused the physicians' certificates are now going out of the state to be married (in the first year—20% ; in 1940—8%).

3. Sixty percent of the persons refused the certificates did not get married—at least within three months.

4. Nearly 60% of the persons with positive tests, whether married or not, stay under treatment for at least three months.

5. Physicians report a considerable number of persons as potentially infectious and delinquent from treatment (271 in two years, 1939-1940). More than half of these were found by local health officials and returned to treatment.

PRENATAL LAW

The New Jersey law requiring physicians and midwives to secure blood samples from pregnant women for testing for syphilis has been in effect since January 1, 1939. The activities of this Division in following up the operation and effects of this law were described in some detail both in the last annual report and in two articles which appeared in *Public Health News* of October and December, 1940. For these reasons, only a few of the most interesting features are repeated here.

1. Birth certificates filed in this Department show a steady increase in the numbers which state whether or not prenatal blood tests were made. Certificates for births in March, 1941 (the last month studied) indicate that tests had been made on 93% of the women whose babies were born alive. Stillbirth certificates are not so completely filled out, for various reasons, and reported that only 53% of these women had prenatal blood tests.

2. There is also evident a trend toward earlier blood tests. Prior to the fifth month of pregnancy, such tests have increased from 22%, as reported on birth certificates in March 1939, to 45% for March 1941. Stillbirth certificates show a corresponding increase in tests before the fifth month of pregnancy from 11% to 38% in the same period.

3. Approved laboratories report numbers of prenatal tests made on blood samples which are so identified. The following table indicates a steady increase in such tests since the passage of the law:

PRENATAL BLOOD TESTS AT APPROVED LABORATORIES IN NEW JERSEY

	Total	Positive*	Percent Positive
Jan.-June 1939.....	19,752	272	1.38%
July-Dec. 1939.....	23,111	368	1.59%
Jan.-June 1940.....	25,721	354	1.33%
July-Dec. 1940.....	27,219	381	1.38%
Jan.-June 1941.....	30,305	421	1.39%

No special studies have been made this year to determine the respective number of white and negro women with syphilis. On the basis of previous data it is reasonable to believe, however, that the positive tests are about as follows: 5.0% Negro; 0.5% white.

4. The routine procedure of sending questionnaires to private physicians who are in attendance on pregnant women with positive blood tests has been continued with good results. Names and addresses are supplied to us by the following five laboratories: State, Camden and Newark cities, Bergen and Hudson counties. A request for all approved public laboratories to report details of all positive tests for syphilis and gonorrhoea is soon to be made. This will increase considerably the extent and value of all our follow-up work. During the year, July 1940 to June 1941, a total of 379 such prenatal questionnaire forms went out, of which 95% were answered.

5. Postnatal questionnaires, aimed primarily to find out if the babies have syphilis and, if so, what is being done about it, have been improved and are giving better results. A cooperative agreement between this Division and the Bureaus of Local Health Administration and Maternal and Child Health now provides for the assignment to each known prenatal case of syphilis of a nurse of this Department whose duty it is to arrange for the completion of the postnatal questionnaire. Approach to the physician by the nurse, soon after the report of the positive prenatal blood test, makes it possible in many instances for her to be of service in keeping the woman coming for treatment, at least during the critical period of her pregnancy.

6. A definite tendency toward less congenital syphilis is indicated by reports of cases and deaths. In this connection, the following facts are of interest:

* Positive tests contain some duplication. Number of different persons not known.

SYPHILIS-INFANT CASES AND DEATHS REPORTED TO N. J. STATE HEALTH DEPARTMENT

Year	CASES*		DEATHS	
	under 1 year	under 5 years	under 1 year	under 5 years
1931			44	47
1932			43	48
1933			33	37
1934	107	187	29	34
1935			25	27
1936	80	130	23	25
1937			22	24
1938	75	139	20	21
1939	57	110	21	21
1940	66	114	13	13

Prenatal blood tests indicate that about 800 women have syphilis whose babies are born in New Jersey each year. It goes without saying that every possible effort to get these women blood tested early and under adequate treatment, and to have their babies examined and tested soon after they are born, are some of the most definite and effective steps that can be taken in the control of syphilis. This Division recognizes its responsibility and is putting the proper emphasis on this phase of its program. We feel that the Prenatal Law has real educational value and is producing excellent results.

EARLY CASES OF SYPHILIS

In last year's Annual Report, a statement was given in some detail about "What Happened to 565 Persons With Primary And Secondary Syphilis." Those results were secured from the questionnaires sent routinely to private physicians who report early cases, supplemented by a system of referring delinquents for follow-up to local health officials.

This procedure has been continued with good results. Physicians answer 97% of the questionnaires that go to them three months after the original report, and 90% of those that go out at the end of a year. The scope of the study mentioned above has been extended to include 3,113 early cases of syphilis, of which 1,454 were reported prior to 1940. These figures were combined and put into the form of a report which appeared in the *Journal of Social Hygiene*. Reprints were secured and sent to all the physicians in the state, with a foreword by the Director of this Department, expressing appreciation for the cooperation of the medical profession in this and the various other phases of the Venereal Disease Control program.

* Considering the fact that reporting of syphilis has increased rapidly in the last half of the above period, the decrease in infant cases has all the more significance.

These figures for 1,454 persons with early syphilis are condensed below into the main essentials:

At the end of one year:

Still under treatment by same doctor	34%
Referred and went to other doctors or clinics	15%
Stopped treatment after 20 arsenicals and 20 metals.....	5%
Delinquents followed and returned to treatment	25%
<hr/>	
Total under control	79%
Delinquents not located	15%
Otherwise lost, moved, etc.	6%
<hr/>	
Total lost	21%

From the year 1938 to 1939, there was a marked improvement in finding delinquents and in getting them under treatment. Otherwise, there was little change in the figures during the three years the study has been under way.

Adding early cases of syphilis reported in clinics to those reported by private physicians during 1940, gives a total of 2,845 potentially infectious persons. The data available seemed to indicate that at least 50% of these people were given sufficient treatment during a year to keep them temporarily non-infectious. Getting more early cases reported and keeping them treated are two of the essentials of control to which this Division is devoting a large amount of effort.

MIGRANT POTATO PICKERS AND OYSTER SHUCKERS

During the summer of 1940, there were 2,521 persons mass blood tested in the potato growing counties of Monmouth, Middlesex, and Mercer. One hundred and ninety-five (195) farms and 15 townships were represented. Seven hundred and forty-six (746) persons were found to have positive blood tests. This represented 29.6% of the group. An additional 186 persons had doubtful tests. This migratory group was composed of over 99% Negroes with a ratio of three males to one female, and about 70% of this group were either single, widowed, divorced or separated. Three strategically located temporary clinics were set up for purposes of diagnosis and treatment of the infected individuals. Seven hundred and seven (707) diagnoses of syphilis were established and 40.6% of this group were found to have early infectious stages of the disease.

A similar service was rendered to migrant oyster shuckers who work during winter months on the shores of Delaware Bay. This group was only about 20% as large as the potato group, but otherwise had a similar composition and yielded similar ratios of infected persons. A special treatment

clinic was conducted in that area to control infectiousness among this group during the period of their stay in this State.

FREE DRUGS

This Division has continued to supply standard drugs to clinics for the treatment of patients with syphilis or gonorrhoea. Free drugs are also supplied upon request to private physicians for use in the treatment of their indigent or semi-indigent patients. Requests for this service are increasing each year as extended case-finding efforts bring greater proportions of the infected individuals under medical control.

THE EPIDEMIOLOGIC AND FOLLOW-UP PROGRAM

Three additional public health nurses were employed during the year, making a total of fourteen as provided by the budget. Recent appointees have assisted in the group testing plan whereby large numbers of persons have been blood tested for syphilis through the cooperation of the N.Y.A. and other agencies. Nurses of the Department continue to render full-time assistance in venereal disease case work to the local health departments in the following areas: Passaic; Paterson; the six municipalities of the North Hudson County area; Morris County; Warren and Sussex Counties; Trenton and Mercer County; Burlington County; Camden City; Gloucester, Salem and Cumberland Counties; the western section of Bergen County; and the Oranges and Maplewood. A new assignment was made this year to cover the area surrounding Plainfield served by the Plainfield clinic.

During the year these nurses reported investigating and arranging for the examination of 516 sex contacts (207 of whom were found to be infected) and 364 family contacts (52 found positive) of patients with syphilis or gonorrhoea. Irregularity in treatment, mostly among clinic patients, has been investigated and the importance of regular treatment explained. In 4,922 instances patients have resumed treatment either at the clinic or with a private physician. Nurse, employed by other agencies, but cooperating with this Department by submitting monthly reports, investigated and had examined 198 sex contacts (64 of whom were found to be infected), and 248 family contacts (39 positive); they succeeded in returning 3,885 absentee patients to treatment.

NURSING STAFF EDUCATION

Miss Jane Cook was appointed as case work advisor to the Division, without salary. This is an official acknowledgment of services which Miss Cook has rendered for many years. She will assist in formulating policies and in planning and carrying on staff education.

Because of the difficulty of finding nurses qualified for venereal disease case work, the policy of sending employees to the three months special training course at the Institute for the Control of Syphilis, University of Pennsylvania, has been continued. This year two nurses of the Division staff and one from the Bureau of Local Health Administration were sent. During the past few years a total of nineteen public health nurses have been subsidized by the State Department of Health to attend this course, ten of them State Department staff nurses and nine employed by local health departments or non-official health agencies. In addition, four nurses were granted leave of absence for a full semester's work in public health nursing; two at New York University, one at the University of Pennsylvania, and one at Teachers College, Columbia. Tuition fees and stipends were paid by the Department.

Eight all-day staff meetings were held in Trenton by the public health nurses employed by the State Department of Health in its venereal disease control program. Some 35 additional nurses employed by local health departments or other agencies were invited to attend these meetings. These staff meetings have given an opportunity for discussion of administrative problems and new developments in the diagnosis and treatment of syphilis and gonorrhoea. However, the principal subject for study this year has been the philosophy and methods of social case work as they apply to venereal diseases.

COOPERATION WITH INDUCTION BOARDS

An arrangement was made with the army officials to have a public health nurse on duty at the Armories in Newark and Trenton to interview men rejected by the Induction Boards because of infection with a venereal disease, in most instances gonorrhoea. Most cases of syphilis are rejected by the local draft boards and do not reach the Induction Stations. Soon after this arrangement was made the Newark Induction Station was closed and all men examined in Trenton. A public health nurse of the Division has been on duty at the Trenton Armory since April. In the three months, 202 infected men have been interviewed before they left the armory to return home. In this interview the man is instructed regarding his need for medical care, and asked to give the name of his physician. This physician is notified immediately by letter regarding the findings of the Induction Board. If the rejectee states that he cannot afford to go to a private physician, he is given the location and hours of the nearest clinic and a letter is sent to the clinic. His cooperation is sought in the examination and treatment of others. Definite information was secured about 95 sex contacts, 63 of them residents of New Jersey and 32 of other states. This in-

formation was referred promptly to the responsible local official for investigation. Prior to July, 14 of these contacts have been placed under treatment, 9 others had been examined and found to be negative, 22 could not be located and the balance of 50 were still under investigation.

AT FORT DIX

Permission was granted to the Division to have one of its nurses interview all men hospitalized for gonorrhea at the Post Surgical Hospital, Fort Dix. Between April 21 and June 30, this nurse has interviewed 105 infected men in an effort to secure information about sex contacts. Sufficiently definite information has been secured to warrant the investigation of 45 alleged contacts, 29 of whom were residents of other states and were referred to the State Department of Health having jurisdiction. To June 30, reports of investigations of these cases had been received as follows: placed under treatment, 7; unable to locate, 11; examined and found negative, 7; investigation had not been completed of 20 of the cases.

In many instances in which the patient was unwilling or unable to give definite information, he mentioned the name of the city in which he probably acquired his infection. Even such indefinite information is valuable as an indication of the places in which a more intensive program of prevention is needed.

POPULAR EDUCATION

The Division continued its program of making information about venereal diseases available to the public. The National Defense program has stimulated these activities because much emphasis has been placed on the subject. Large quantities of leaflets have been supplied for distribution to young men examined by the local Selective Service Boards and to draftees through the State Induction Stations.

New literature purchased for free distribution has included the following:

- "So Long, Boys"—American Social Hygiene Association.
- "Vital to National Defense"—American Social Hygiene Association.
- "Venereal Disease and National Defense"—U. S. Public Health Service.
- "Arm Against Syphilis"—U. S. Public Health Service.
- "The Doctor Says"—U. S. Public Health Service.
- "Saboteurs of National Defense"—Mass. Social Hygiene Association.

Two new films were purchased from the American Social Hygiene Association: "In Defense of the Nation" and "Plain Facts." A one-reel colored film was made, showing some of the field work of the Division, consisting of taking blood samples and giving treatments to migratory farm

workers and oyster shuckers. There are also some scenes at Fort Dix, showing a sex-hygiene talk and blood sampling.

Local health officials are kept informed as to what new educational material is available from the Division, and many of them use it. Some efforts in publicity have been made with industries, as described elsewhere in this report.

COOPERATION WITH DRUG STORES

Several conferences were held between representatives of this Division and the New Jersey Pharmaceutical Association, relative to cooperation of drug stores in the publicity campaign. Articles about the plan appeared in both the *Journal of Pharmacy* and *Public Health News*, and each county pharmaceutical association, and 50 health officers received letters stating that literature was available for this purpose. This procedure did not have very satisfactory results, except in Newark, where the Health Department detailed a man to visit each of the 200 drug stores, and later to deliver the literature they requested. As a result, some 75,000 copies of leaflets (furnished by this Division) were distributed. The Newark Health Department reports that several persons came in to their clinic as a result of this publicity campaign, some of whom were diagnosed as having primary syphilis.

Good results were secured by two of this Division's nurses, approaching druggists in their districts. In this way, a considerable number of leaflets were distributed and several window displays were arranged.

We were invited to have an exhibit at the Pharmaceutical Association's annual meeting at Atlantic City, which attracted considerable attention, and where 15 druggists agreed to distribute our literature and put displays in their windows.

"SEE YOUR DOCTOR" STAMPS

One-hundred thousand red, white and blue stickers for use on correspondence, bearing the following wording, were distributed on request to boards of health, physicians, industries, various bureaus of this Department, and many others:

See Your Doctor
Be Examined
Have a Blood Test

Division of Venereal Disease Control, N. J. Dept. of Health Cooperating
with U. S. Public Health Service

SOCIAL HYGIENE

This Department took an active part in the Third Annual Social Hygiene Conference at New Brunswick, April 25, 1941, where the general subject was "Social Hygiene and National Defense."

We continued last year's plan of employing a woman physician to give illustrated lectures on sex education to girls' and women's organizations and Parent-Teacher Associations. Since this is somewhat off the direct line of venereal disease control, and since there is evidence of more such work being done by schools and other organizations, and since the Division's funds have been sharply reduced, this part of our publicity efforts may be curtailed. We want to say here, however, that this part of our program, carried on among the youth of our State to the best of our ability for the past 20 years has, no doubt, had a real effect in building up a certain degree of knowledge about the subject of venereal diseases which is standing us in good stead in our present intensified activities.

Popular literature distributed during the year amounted to 310,000 pieces of various kinds. Meetings addressed, at many of which motion pictures were shown, are classified in the usual way below.

LECTURES GIVEN DURING THE FISCAL YEAR
June 30, 1940 - July 1, 1941

Name of Group	No. of Meetings	Attendance
Parent-Teacher Associations	55	4,138
Army Corps	52	20,564
Civilian Conservation Corps	14	4,188
National Guard	15	9,930
Kiwanis Clubs	5	200
Lions Clubs	2	45
Rotary Clubs	3	170
Men's Club	3	135
Y. M. C. A.	2	73
Y. W. C. A.	9	399
Women's Club	2	96
Children of High School Age	26	3,661
Boys' Camp, Salvation Army	1	290
Girls' Camp, Salvation Army	4	890
Youth Fellowship and Corps (Co-eds)	1	175
Medical Groups	4	705
Miscellaneous	18	1,665

Literature Distributed — 310,000 copies.

REFRESHER COURSES FOR PHYSICIANS

A special effort was made for the benefit of the physicians of this State and a course-program involving twelve two-hour lecture-demonstration sessions relative to the venereal diseases was presented at Orange, Paterson,

Morristown, Trenton, Camden, and Neptune in the fall of 1940. This same course was again presented at Jersey City, Paterson, and Metuchen in the spring of 1941. These courses have created considerable interest among physicians who treat these diseases and a better understanding has developed between many of these physicians and the State Department of Health. Furthermore, a considerable increase in consultation service by mail and telephone has resulted in part from this educational feature of our program.

COOPERATION WITH INDUSTRY

Various efforts were made during the year to secure the cooperation of representative New Jersey industries in providing wholesale blood tests and in promoting the venereal disease education program.

Subsidies from this Department to the Camden, Newark and Paterson laboratories made it possible to offer free blood tests in large numbers. The assistance of this Division's physicians to take the samples was also suggested in a few instances. Various new leaflets stressing the danger of venereal diseases in defense activities were made available in considerable quantities.

This activity was promoted through personal visits to medical directors of some of the plants; by appeal to local health departments, individually and in groups, to present the matter to officers of their local industries; also through circular letters from this Department to selected lists of industries. Several conferences were held with officials of the State C. I. O. who seemed to be interested. In spite of these efforts it cannot be said that a great deal of success resulted. The usual explanation was that business was so brisk and labor problems so acute as to leave no time for such activities.

A "General Policy" was drafted, providing for free blood tests and outlining the procedure to be followed in positive cases of syphilis. This policy was circulated quite widely in industries and through local health departments. Only three industries followed the suggestions and accepted our offer of assistance. These were the Wright Aeronautical Company in Paterson, the Charms Candy Company of Bloomfield, and the Campbell Soup Company of Camden.

An attempt was made to find out what were the results of blood test in 64 plants, where we had reason to believe some such policy was in effect. Twenty-two answers were received to our questionnaires, including requests for 50 posters and 8,000 copies of assorted leaflets, which were supplied. While some of the answers were quite indefinite (several reporting

"all" employees tested) the following specific figures were culled from the returns:

Employees Blood Tested	16,097	
Positive Results	186	(1.15%)
Positive Investigated	123	
Positives Put Under Treatment	69	

Only five of the twenty-two companies reported any health-education program.

ASSISTANCE TO LABORATORIES

The sensitivity and constancy of results obtained with serologic tests for syphilis used by laboratories in New Jersey are still being checked by the lyophilic method with standardized syphilitic serum as developed by A. J. Casselman, M.D., Technical Consultant to this Division. This standardization work has not been carried out this year quite as planned because the special laboratory staff was needed to do Selective Service blood tests for South Jersey and to oversee the preparation and sterilization of blood collecting outfits for all local Selective Service boards in the state. One hundred and seventy thousand blood collecting outfits were prepared in the Syphilis Standardization Laboratory in Camden by N. Y. A. girls and distributed from the Selective Service headquarters in Trenton.

Lyophilized human serum was prepared and standardized as a "negative", a "doubtful", and a "positive" serum. The standard adopted for a minimum positive is one which reacts plus 2 to the diagnostic Kline, plus 4 to the Exclusion Kline, and plus 2 (024) to the Kahn test. This standard of sensitivity was selected for the term "positive" so that approximately 95% of serums containing this minimum amount of reagin would be found to be from syphilitics. The doubtful serum was adjusted to be of a strength of reagin which would suggest a 50% probability of syphilis. One thousand three hundred fifty ampules of lyophilized standardized serum were prepared during the year. Serum was distributed to all New Jersey laboratories, but the work was interrupted by the needs of Selective Service. This work showed the need for the distribution of a uniform antigen, particularly for flocculation tests. Plans were made for the distribution of Mazzini antigen of a constant sensitivity to all New Jersey laboratories desiring this service.

DARKFIELD WORK

Darkfield facilities are available in thirty-seven cities in New Jersey, although these services are not used as often as desirable. Additional equipment, a complete darkfield unit of Bausch and Lomb microscope, cardioid

condensator, and Zeiss high power six volt light, all lined up in position permanently on a wooden base, was loaned to the Fitkin Memorial Hospital in Asbury Park. Another similar darkfield unit was placed in the laboratory at Fort Dix, and this particular instrument is being extensively used. A Zeiss darkfield condensator only was supplied to the Paterson Board of Health Laboratory.

Darkfield demonstrations and lectures were given to groups of physicians in Paterson, Jersey City, E. Orange, Morristown, Trenton, Neptune, Camden and Atlantic City. A specimen container for darkfield samples, equipped with a suction device, capillary tubes, a sealing compound and a sheet of instructions is supplied from the State Laboratory, so that specimens can be mailed to the State Laboratory for examination.

GONOCOCCUS CULTURE

So that gonococcus culture work would be more readily available in New Jersey, five technicians were given a few weeks training in methods at the Venereal Research Laboratory of the U.S.P.H.S. at Staten Island. Additional equipment was loaned for this purpose to the Health Departments of Newark, Camden and Paterson. Some cultures have been done routinely in Newark and Paterson but the work is progressing more slowly in Camden, because of delay in the local community effort in providing space and fixtures.

REPORTS

Summaries and totals of reports received from physicians and clinics are given below. The willing cooperation of New Jersey physicians and the increasing volume of the data thus received add materially to the effectiveness of our work.

SOURCES OF INFECTION REPORTED BY PHYSICIANS

(Fiscal Years)	1938	1939	1940	1941
Professional prostitutes and brothels	36	32	32	37
Clandestine prostitutes	216	180	259	261
Husband or wife	204	154	183	208
Congenital	248	244	541	806
Total	704	610	1015	1312

The customary procedure of the Division was followed in reporting contacts and suspected sources of infection to our case workers or to local health officials in such instances as would seem to indicate that effective follow-up work might be done.

The table below gives the reported cases of venereal disease in New Jersey by county, disease and sex for the calendar year of 1940, together with the annual rate per thousand.

County	Gonorrhea		Syphilis*		Chancroid		Total	Population	Rate per M
	M	F	M	F	M	F			
Atlantic	105	29	346	448	3	0	931	124,100	7.5
Bergen	126	17	250	243	2	0	638	410,800	1.6
Burlington	91	7	97	102	0	0	297	97,100	3.0
Camden	137	18	280	333	0	0	768	255,800	3.0
Cape May	34	15	62	57	0	0	168	28,900	5.8
Cumberland	40	7	110	118	0	0	275	73,300	3.8
Essex	799	262	1574	1523	6	1	4165	837,400	5.0
Gloucester	41	9	115	128	0	0	293	72,300	4.1
Hudson	194	29	372	322	2	0	919	652,000	1.4
Hunterdon	10	5	32	71	0	0	118	36,800	3.2
Mercer	181	49	401	307	0	0	938	197,600	4.8
Middlesex	88	26	225	167	....	....	506	217,200	2.3
Monmouth	127	39	417	339	1	0	923	161,600	5.7
Morris	55	22	136	105	0	0	318	126,100	2.5
Ocean	28	17	48	56	0	0	149	37,800	3.9
Passaic	125	19	201	194	0	0	539	309,500	1.7
Salem	50	7	112	127	0	0	296	42,400	7.0
Somerset	23	9	82	46	1	0	161	74,600	2.2
Sussex	19	4	24	13	0	0	60	29,700	2.0
Union	150	39	324	306	1	1	821	328,900	2.5
Warren	13	1	36	38	0	0	88	50,200	1.7
Total	2,436	630	5,244	5,043	16	2			
	3,066		10,287*		18		13,371	4,163,100	3.2

For purposes of comparison the total numbers of cases of gonorrhea, syphilis, and chancroid for the calendar years 1937 to 1940 are here reproduced.

	Gonorrhea		Syphilis		Chancroid		TOTAL
	Percent of Total	Percent of Total	Percent of Total	Percent of Total	Percent of Total		
1937.....	3,333	28.5	8,282	71.0	58	0.5	11,673
1938.....	3,221	22.6	10,944	76.9	67	0.5	14,232
1939.....	2,962	21.4	10,856	78.4	26	0.2	13,844
1940.....	3,066	23.0	10,287	76.9	18	0.1	13,371

The above figures do not include the numbers of cases of syphilis discovered by the blood testing programs covering large numbers of migrant farm workers and oyster shuckers.

* In addition there were 613 persons among the migrant agricultural laborers and 133 oyster shuckers diagnosed as syphilitic for the first time in New Jersey and treated in special clinics for those people.

PLANS FOR THE FUTURE

Within the limitations of present and future budgets it is proposed that the mass blood testing technique for casefinding be extended, particularly to low income groups and in the age range from 18 to 35 years. From a public health standpoint, the early infectious cases are especially significant, it is in this age range that most syphilitic infections are acquired, and the prevalence of syphilis has been shown to be higher in the low income group. Mass blood testing among industrial employees, particularly in large defense industries, should be an integral part of this program. It is planned to encourage all laboratories in this State to report promptly data concerning every positive or doubtful serological test for reagin which they may perform. This will make possible not only improved reporting of the venereal diseases for statistical purposes but also permit assurance that each infected individual is adequately diagnosed and brought under proper treatment so as to reduce the possibility of further spread of the disease. The culturing of the gonococcus as an aid to diagnosis and test for cure should be performed under adequately controlled conditions in many more laboratories, so that each laboratory may serve the immediately adjacent area and reduce the problem of transportation of the specimens. The rapid intensive therapy for early infectious syphilis should be developed to a point where most persons diagnosed with early syphilis can be treated by that method. Such a procedure will cut to a minimum the possibility of further spread of the disease, and greatly reduces the need for extensive follow-up services.

Report of the Dental Health Program

For the Year Ending June 30, 1941

J. M. WISAN, D.D.S., *Consultant*

Aroused public awareness of dental needs seems to be the most significant occurrence for the Dental Health Program of the New Jersey State Department of Health during this, its second year. Undoubtedly the fact that approximately 20% of the rejected selectees were rejected because of dental defects and the fact that 8% of all examined could not meet dental requirements* engendered the interest of an amazed public in dental problems. Indeed the failure to meet dental requirements was the most frequent cause for rejections. Impatient with the lag in past efforts to prevent dental disease, nineteen health and welfare organizations officially announced their willingness to cooperate with the Dental Health Program of the State Department of Health. Furthermore these organizations energetically petitioned the legislature and obtained the first state appropriation (1941-42) for a state-wide dental health program in New Jersey.

INNOVATIONS

During the past year the most promising innovation was perhaps the organization of two demonstration dental health programs in Hunterdon County and North Arlington. These experimental projects not only made it possible to study administrative and professional policies to be utilized in a dental service program for indigent children, but also offered opportunities to investigate various methods of disseminating dental health information. It thus became possible to plan dental service programs and dental health education programs for communities by the trial and error method and not by academic parlor-chair thinking. Accurate data is now available to inform local communities and counties of the cost of equipping and maintaining dental service programs for indigent children. Also the amount of dental treatment that can be provided for a given number of children in a stipulated period of time can be predicted.

*Dental requirements for selectees were as follows: 6 posterior teeth in occlusion, 6 anterior teeth in occlusion.

The following innovations in disseminating authentic dental health education material were investigated:

1. Talks before groups based on questionnaires previously distributed.
2. Visits by local citizen committee members carrying dental health material into the homes.
3. Organization of community dental health committees for the administration of local dental programs.
4. Publication of two-paragraph newspaper dental health messages.
5. Distribution of leaflets and posters to encourage discussions and initiation of dental health teaching units in classrooms.

In-service teachers and nurses were given scholarships for a course in dental health education. The success of the course has made it possible for the State Department of Public Instruction to list a course in dental health education as a requirement for permanent school nurse's certificate. All New Jersey State Teachers Colleges as well as Seton Hall College will present the course.

SUMMARY OF ACTIVITIES OF THE DENTAL HEALTH PROGRAM

1. Material distributed in New Jersey as a result of written requests:

121,373 Seals —Dental Care the Earlier the Better
 500 Posters—Enlarged copies of the above mentioned seal
 7,081 Leaflets—Dental Care the Earlier the Better
 20,565 Leaflets—Dental Care Routine for the School Child
 10,771 Leaflets—Going Through School With Healthy Teeth
 1,866 Leaflets—Expecting A Baby?
 6,221 Leaflets—Letter to High School Pupils About Teeth
 6,179 Leaflets—The Useful Baby Molars
 151 Dental Health Bibliographies
 395 Posters —Happily Entering School With Healthy Teeth

2. 60 talks were delivered to such organizations as dental societies, pharmaceutical groups, parent-teacher associations, boards of education, health officers, women's clubs, teachers meetings, nurses meetings, health groups, schools, service clubs, etc.
3. 68 conferences were held with local and county groups.
4. 114 requests were received for showing of dental health films.

5. Surveys were conducted to determine dental conditions of 54,406 school children of 12 communities—a sampling of communities of different economic and social levels.

Perhaps the most significant finding in these surveys was a comparison of dental conditions found among urban as against rural children. The following table indicates the differences:

	<i>Urban</i>	<i>Rural</i>
Percentage of children requiring dental treatment.....	83%	87%
Percentage of children that have had permanent teeth filled....	42%	31%
Number of defective teeth per pupil	4.9	5.4
Lost permanent teeth	95 per	125 per
	100 children	100 children

Note. A study of dental facilities for treatment of indigent children in the state revealed that 75% of the communities without facilities had less than 500 school population.

6. 586 requests for material and consultive service from various communities throughout the state were received during the year.
7. In order to determine what facts should be emphasized in dental health education programs, questionnaires were distributed among representative groups such as parent-teachers association, service clubs, church organizations.
8. 152 newspaper releases and 4 informational magazine articles were published during the year.
9. At the request of the Summer Round-Up Committee of the New Jersey Congress of Parents and Teachers, the State Department of Health organized with the cooperation of the New Jersey State Dental Society a state-wide examination of children about to enter the first grade of school. All members of the New Jersey State Dental Society offered to examine without charge children brought to their office by parents and members of parent-teacher associations. As of July 1, 1941, records indicate that 1,453 children were examined. 64% required dental treatment. 77% had never been to a dentist for *any* form of treatment. Only 6% had had constructive treatment in the form of fillings. There was an average of 4 defective teeth per child. Among the six year children included in this examination, 92% required treatment. This group (six year) showed an average of 2.8 *permanent teeth* per child requiring treatment.

DEPARTMENT OF HEALTH

10. Facts ascertained from the two demonstration programs:

HUNTERDON COUNTY

(Rural program conducted in two central clinics to which children were transported by lay committees)

Number of hours dentist operated	707
Number of different patients	602
Number of visits	1,071
Operations performed:	
Examinations	610
Extractions of permanent teeth	332
Extractions of deciduous teeth	1,204
Silver Amalgam Fillings	1,568
Synthetic Porcelain Fillings	38
Prophylactic Cleanings	523
Total number of operations	4,275
Number of children completed	153
Percentage of children completed	25%

NORTH ARLINGTON

(Industrial community program conducted by local department of health)

Number of hours dentist operated	525
Number of different patients	237
Number of visits	1,772
Operations performed:	
Examinations	369
Extractions of permanent teeth	91
Extractions of deciduous teeth	392
Silver Amalgam Fillings	1,278
Synthetic Porcelain Fillings	39
Prophylactic Cleanings	163
Total number of operations	2,332
Number of children completed	176
Percentage of children completed	70%

Averaging the cost for both demonstration programs revealed that the costs of dental treatment per pupil was \$5.27. Cost included all items with the exception of rent, light and heat which were provided by the county and salary of dentist's assistant which was provided by the Works Progress Administration.

Negro Health Program

June, 1940 to June, 1941

This Division under the administration of the Bureau of Local Health has promulgated a program among the minority population group of the state showing the greatest differential in morbidity and mortality rates. The statistical basis indicates the need for such work.

HEALTH EDUCATION

In twelve counties, health committees have been organized to include laymen representatives of various organizations and existing health and welfare agencies, both official and voluntary. In order to develop individual responsibility and initiative, these units planned and participated in many health mass meetings throughout the year in their different localities. Health consciousness is the object of this cooperative effort. Literature and motion pictures, particularly adopted to this group, were distributed and shown. Special posters were designed, stressing X-ray examinations of the apparently well. Local health departments gave substantial aid with these activities. Child hygiene, tuberculosis, heart disease and cancer were stressed.

To focus attention and stimulate activity, the cooperation of local health departments, Visiting Nurse Associations and county tuberculosis leagues, gave greater impetus to this phase of the work. An increase in attendance at chest clinics was noted especially.

PROFESSIONAL OPPORTUNITIES

Nurses Institute—The Colored graduate nurses of the state attended the first annual conference arranged by this division, in April. National leaders in public health nursing were speakers on the program. Modern public health nursing problems and ways of meeting them were discussed. Standards for adequate training and post-graduate opportunities were presented.

For physicians, Bergen and Union County Sanatoria, arranged refresher courses in clinical tuberculosis through the stimulation of this division.

Many doctors completed the courses in venereal diseases given by the bureau of the same name.

CASE-FINDING

This modern public health procedure was executed with the cooperation of the Union County Tuberculosis League in four cities of that county; among the migrant potato pickers fluoroscopic chest examinations were made to protect permanent residents from cases of open tuberculosis; in Newark a 35 mm fluorogram survey was made on 709 apparently well people representing a random sampling of the third ward, where the incidence of tuberculosis is at the maximum. All applicants came voluntarily. Reports were sent to family physicians whether positive or negative. The Newark City Department of Health cooperated in this demonstration.

STATISTICAL AND EPIDEMIOLOGICAL STUDIES

The well known facts of differences in rates for disease incidence and fatality among this minority group, of course, obtain in this state. Large population concentrations in Essex, Hudson, Union, Atlantic, and Mercer Counties show the expected high figures and indicate clearly a need for increase of work among the existing agencies of these localities. Low economic status with attendant health disadvantages, obviously are the result of a continuously definite lack of employment opportunities for this group. Finding disease early and the prevention of same is clearly indicated with such handicaps. Moreover, the substandard housing problems in the usually segregated and decadent neighborhoods continue to be causal factors and of considerable public health importance in this racial health problem.

Report of the Bureau of Engineering

For the Year Ending June 30, 1941

H. P. CROFT, C.E., CHIEF ENGINEER

This report deals with the following:

- No. 1—Number of Water and Sewage Projects Examined and Approved from July 1, 1940 to June 30, 1941.
- No. 2—Inspections Made and Certain Actions Taken.
- No. 3—Court Decisions.
- No. 4—Order of Necessity.
- No. 5—Revision of "Rules and Regulations for the Preparation and Submission of Designs for Sewer Systems . . ." in the Matter of Sewer Grades.
- No. 6—Water Supplies at Rural Schools.
- No. 7—Physical Connections—Original Permits Issued—Permits Cancelled.
- No. 8—Establishment of Factories on Watersheds.
- No. 9—Certification of Water for Use on Interstate Carriers.
- No. 10—Licensing of Operators and Superintendents of Water Treatment Plants, Sewage Treatment Plants and Water Supply Systems—Additional Rules and Regulations.
- No. 11—Raritan River.
- No. 12—Sewage Treatment by the Atlantic City Sewerage Company, Atlantic City, N. J.
- No. 13—Water Supplies not now Recognized as Public Potable Water Supplies Pursuant to the Resolution Adopted on January 10, 1933.
- No. 14—Water Supplies Abandoned from July 1, 1940 to June 30, 1941.
- No. 15—The Storm of September 1, 1940 and its Effect upon Water Supplies and Sewerage Systems in Southern New Jersey.
- No. 16—The Pollution of the Waters of the Delaware River and its Tributaries.

- No. 17—The Hackensack River Watershed.
- No. 18—A New Type of Ground Water Supply Collector (Ranney Radial Well Collecting System) at Penns Grove, New Jersey.
- No. 19—(a) Change in the Name of Water Supplies.
(b) Supplement to "Public Potable Water Supplies in New Jersey" as Contained in Report for Year Ending June 30, 1939, Supplemented by 1940 Report.
- No. 20—Status of Sewage Disposal—Additions, Alterations or New Units Under Construction or Constructed During Fiscal Year July 1, 1940 to June 30, 1941—Supplement to Tabulations Contained in Annual Reports for the Years Ending June 30, 1939 and June 30, 1940.
- No. 21—Private Water Supplies.
- No. 1—NUMBER OF WATER AND SEWAGE PROJECTS EXAMINED AND APPROVED FROM JULY 1, 1940 TO JUNE 30, 1941

Character of Projects	Number of Projects	Number of Applying Municipalities, Commissions or Companies	Number of Plans	Engineers' Estimates of Cost
<i>Sewage:</i>				
Sewer extensions	100	55	285	\$1,770,671.03
Alterations and additions to sewer systems, sewage and/or industrial waste treatment plants	28	27	127	1,448,684.00
Sewage and/or industrial waste treatment works, systems and appurtenances, new	10	10	144	2,324,839.50
<i>Water:</i>				
New systems and supplies	8	8	21	149,498.00
Alterations, improvements and additions to water works	64	51	134	424,524.81
Totals	210		711	\$6,118,217.34
Total of engineers' estimates of cost for the fiscal year ending June 30, 1940				\$3,478,632.78

No. 2—INSPECTIONS MADE AND CERTAIN ACTIONS TAKEN

Special water inspections	219
Water complaints, conferences, hearings and meetings	44
Routine water inspections	42
Special sewage inspections	183
Routine sewage inspections	2
Sewage complaints, conferences, hearings and meetings	49
Railroad certification inspections	47
Creamery, laundry, dairy waste inspections	8
Cross connection inspections	10
Watershed inspections	8
Gage installations	16
Outfall inspections	3
Odor investigations	3
Paper wastes, industrial wastes and/or trade wastes inspections	24
Shellfish investigations	1
Camp investigation (C. C. C. Camp)	1
Bypass scaling	8

One hundred and sixty-four man-working days were spent in the collection of samples from stream sampling stations; twenty-nine man-working days were spent in attending court trials and serving court papers; one hundred and one-half man-working days were spent in attending meetings, conferences, hearings and conventions; fifty-nine and three-quarter man-working days were spent in gas station investigations; nine man-working days were spent in the examination of water and sewage operators; four hundred and four man-working days were spent in stream and/or river investigations; forty-seven and one-half man-working days were spent on the Delaware and Raritan Canal; eighty and one-third man-working days were spent on the Raritan River survey; nineteen and one-half man-working days were spent on survey work; twelve and one-half man working days were spent on surf sampling; forty-nine and one-half man-working days were spent in flood investigations; one hundred and sixty man-working days were spent in the investigation of school supplies; and thirty-six man-working days were spent on the Delaware River investigation.

The following man-working days were spent in the investigation of sewage treatment plants:

Atlantic City	34 ² / ₃	New Brunswick	
Bendix	9 ² / ₃	(Johnson & Johnson)	14
Englewood	7 ¹ / ₃	New Providence	6
Essex Fells	7	Palisades Park	3 ¹ / ₂
Hackensack	27	Perth Amboy	17
Hasbrouck Heights	23 ¹ / ₂	Pleasantville	6 ¹ / ₃
Hightstown	12	Raritan	37
Matawan	7 ¹ / ₂	Ridgefield	10
Maywood	10	Somerville	15 ¹ / ₂
Middlesex	19	Teaneck Township	3 ¹ / ₃
Moorestown	9	Woodbridge Township	12
New Brunswick	17	Wood-Ridge	15 ¹ / ₂

Sanitary inspections were made upon the following streams during the year:—

Barnegat Bay	Mile Run
Berry's Creek	Millstone River
Canoe Brook	Overpeck Creek
Cooper River	Passaic River
Crooked Brook	Rahway River
Crosswicks Creek	Rancocas Creek
Delaware River	Raritan River
Great Egg Harbor River	Risers Ditch
Hackensack River	Rockaway River
Lake Musconetcong	South Branch
Lawrence Brook	Shrewsbury River

Stream pollutions investigated	53
Notices issued to cease stream pollution	39
Cases of stream pollution found to be abated	62
Cases referred to the Attorney General for prosecution	22
Resolutions adopted disapproving plans	9
Resolutions requesting Attorney General to discontinue cases	14
Notices issued to Boards of Education to prohibit the use of water unless treated and/or purified	10
Orders of Necessity issued	8
Resolutions requesting Attorney General to continue case	1
Notices issued in accordance with the Fresh Water Act (58:10-5)	4
Notices issued in accordance with the State Sewerage Act	12
Notices issued in accordance with the Potable Water Act (58:10-1)	9
Notices issued in accordance with Chapter 146, P. L. 1939	7
Resolution adopted for permission to locate and establish a factory on a watershed	1
Resolutions rescinding permits and approvals issued by the department	15
Notice issued to abate nuisance or source of foulness, in accordance with 26:2-43	1
Notice issued to construct outfall sewer	1
Notices issued to construct additional units and/or devices	3
Resolutions approving plans	7
Resolution adopted discontinuing use of chlorination	1

Resolution adopted removing supply from list of public water supplies	4
Notices issued to cease delivery or sale of water from an unapproved source of supply	8
Resolution adopted giving permission to discharge industrial wastes after treatment	1
Notices issued to cease distribution of water unless purified	2
Resolutions adopted relative to operators	7
Miscellaneous resolutions	14

No. 3—COURT DECISIONS

During the year important opinions were given by the Court of Chancery in the following cases:

Department of Health vs. Wecoline Products, Inc.—The Wecoline Products, Inc. was ordered by the department to refrain from polluting the waters of a stream known as Crooked Brook by discharging therein polluting material contained in its factory waste. The case was instituted under the provisions of R.S. 58:12-2. The Order Adjudging Defendant Guilty of Contempt in this cause is:

IN CHANCERY OF NEW JERSEY.

<p><i>Between</i> DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY, and WECOLINE PRODUCTS, INC., a corporation of the State of Delaware,</p>	}	<p>On Bill, &c., On Petition, &c., Order Adjudging Defendant Guilty of Contempt</p>
<p><i>Complainant,</i></p>		
<p><i>Defendant.</i></p>		

This matter coming on to be heard in the presence of Robert Peacock, appearing for David T. Wilentz, Attorney General of New Jersey, solicitor for and of counsel with the prosecution of an order to show cause entered herein, and Russell E. Watson, solicitor and of counsel with defendant, and due proof being made of service of said order directing the said defendant to show cause why it should not be adjudged guilty of contempt of this court and be punished for said contempt, for failure to obey the decree of this court entered in the above entitled cause November 9, 1936, and the writ of injunction issued pursuant thereto, directing the said defendant to refrain from polluting the waters of a stream known as Crooked Brook by discharging therein polluting material contained in its factory wastes, in such manner as to cause or threaten injury to any of the inhabitants of this state residing or being in the vicinity of said brook, either in their health, comfort or property; and the court having considered the testimony and the evidence offered by the complainant in support of said contempt charge and by the defendant in denial thereof; and it appearing to the court that the defendant has continued from November 9, 1936 and also from November 27, 1936 (the date of service of the said injunction) to permit and allow the discharge of polluting material from the factory premises occupied by said defendant at Boonton in the County of Morris and State of New Jersey, into the waters of said brook in violation of the terms of said decree and injunction;

IT IS on this 31st day of December, 1940 on motion of Robert Peacock, appearing for David T. Wilentz, Attorney General of New Jersey, solicitor and of counsel aforesaid, ORDERED, ADJUDGED AND DECREED that the defendant, Wecoline Products, Inc., a corporation of the State of Delaware, be and it is hereby adjudged guilty of contempt of this court in that it has violated the aforesaid decree and injunction of this Court by continuing from and after November 27, 1936 down to the entry of the aforesaid order to show cause, to permit and allow the discharge of its factory waste containing polluting material from the factory premises occupied by it as aforesaid, into the waters of said Crooked Brook in such manner as to cause or threaten injury to the inhabitants of this state, residing or being in the vicinity of said brook, in their health, comfort or property.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that by way of punishment for said contempt the said defendant Wecoline Products, Inc. do forthwith pay to the clerk of this court for the use of the state, a fine of \$1000.00 for its past disobedience of the decree and injunction of this court and that execution issue therefor according to the practice of this court.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that if the said defendant shall not have ceased to discharge its factory waste into the waters of Crooked Brook or its tributaries prior to and after February 15, 1941, it shall also pay to the clerk of this court for the use of the state, a daily fine of \$50.00 to continue from February 15, 1941 until such time as said defendant shall have ceased to discharge its factory waste into the waters of Crooked Brook, or its tributary.

Respectfully advised:

JAMES F. FIELDER,
F. C.

LUTHER A. CAMPBELL,
C.

Department of Health vs. Borough of Westville—The Borough of Westville has permitted and allowed a person to discharge the duties of superintendent or operator in charge of its sewage treatment plant, which person was not the holder of a license issued by the Department of Health of the State of New Jersey, pursuant to the provisions of R.S. 58:11-14. The Conclusions and Judgment in this cause is:

GLOUCESTER COUNTY COURT OF COMMON PLEAS.

DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY, vs. BOROUGH OF WESTVILLE, a municipal corpo- ration of the State of New Jersey, <i>Defendant.</i>	}	Plaintiff, Action at Law CONCLUSIONS AND JUDGMENT
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David T. Wilentz, Attorney General for the State, and Hannold and Hannold, for the Defendant.

The Department of Health of the State of New Jersey filed its complaint demanding of the defendant the sum of \$310.00 on penalty for violation of Section 58:11-14 of the Revised Statutes, alleging more specifically that the Borough of Westville from the 4th day of November, 1939, appointed to discharge the duties of superintendent or operator in charge of its sewage treatment plant . . . which person was not at the time, the holder

of a license issued by the Department of Health of the State of New Jersey pursuant to the provisions of Title 58, Article 5 of Chapter 11 of said Revised Statutes.

The other complaint alleges that the Borough of Westville, a municipal corporation of the State of New Jersey appointed a person to have direct general charge of its water supply system, who was not the holder of a license issued by the Department of Health of the State of New Jersey pursuant to the provisions of Title 58, Article 5, Chapter 11, and that such permission was granted as of the 4th day of November, 1939, and continued down to the time of suit.

The State asks judgment on the penalty provided by the statute in each case in the sum of \$310.00 with costs.

The facts are not disputed. The defendant municipal corporation by its counsel admits that the Borough of Westville did appoint a person to have general charge of its water supply system, which person was not the holder of a license issued by the Department of Health of the State of New Jersey; and further admits that it did appoint a person to discharge the duties of superintendent or operator in charge of its sewage treatment plant, which person was not a holder of a license issued by the Department of Health of the State of New Jersey, pursuant to the statute in such case made and provided.

Defendant's counsel, however, argues that the word "person" as used in the statute here does not apply to the municipality of Westville.

Under Article 5 of Water and Sewage plants and systems, the Act prescribes the license required. Title 58, Chapter 11, Section 17 provides the penalty. The court has read Sections 14 to 18 inclusive and must conclude that the word "person" embraces and comprehends a municipality.

The court has read the briefs of counsel and the authorities cited. Judgment for the Department of Health of the State of New Jersey will be entered accordingly on both complaints filed.

ELMER B. WOODS (*Signed*)
ELMER B. WOODS
Judge

Department of Health vs. City of Trenton—The City of Trenton has permitted and allowed a person to discharge the duties of superintendent or operator in charge of its water purification or treatment plant, which person was not the holder of a license issued by the Department of Health of the State of New Jersey, pursuant to the provisions of R.S. 58:11-14. The Complaint in this cause is:

DISTRICT COURT OF THE CITY OF TRENTON.

DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY, vs. CITY OF TRENTON, a municipal corporation of the State of New Jersey, <i>Defendant.</i>	}	Plaintiff, Action at Law Complaint
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The plaintiff demands of the defendant the sum of four hundred dollars, one penalty for violation of Section 58:11-14 of the Revised Statutes of New Jersey for that

whereas, heretofore, to wit, since the third day of August, nineteen hundred and thirty-nine, the City of Trenton, a municipal corporation of the State of New Jersey, has permitted and allowed a person to discharge the duties of superintendent or operator in charge of its water purification or treatment plant, purifying and treating water used for potable purposes by inhabitants of this State, to wit, inhabitants of the City of Trenton, who was not the holder of a license issued by the Department of Health of the State of New Jersey pursuant to the provisions of Title 53, Article 5 of said Revised Statutes, and the said defendant still permits and allows such unlicensed person to discharge said duties in violation of Section 58:11-14 of said Revised Statutes, wherefore, the said defendant has incurred the penalty of ten dollars for each day said unlicensed person was permitted and allowed to discharge the duties of superintendent or operator in charge of its water purification or treatment plant from the third day of August, nineteen hundred and thirty-nine to the twelfth day of September, nineteen hundred and thirty-nine.

Judgment will be claimed for four hundred dollars with costs of suit.

DAVID T. WILENTZ,
Attorney General of New Jersey,
Attorney of Plaintiff.

Cranbury Feed, Poultry & Hatchery, Inc., Cranbury, N. J.—A potable water notice, based upon the provisions of R.S. 58:10-1, was served upon this company for the discharge of slaughterhouse wastes into the waters of the Millstone River, above the point from which the Elizabethtown Water Company, Consolidated, obtains its water for potable purposes. This failure to comply with the notice came before Judge George Pellettieri in the Trenton District Court on October 10, 1940 and as a result the company was fined \$100. and costs of \$14.37 and the fine was transmitted by the sheriff of Middlesex County on June 23, 1941.

NO. 4—ORDER OF NECESSITY

The term "Order of Necessity" is a designation given to an order issued by the Department of Health of the State of New Jersey to a municipality or county requiring it to construct works for the prevention or suppression of a present menace to public health, and, further, enabling the municipality or county to incur a debt in excess of the statutory limitations in the construction of such works, providing that it is found by the order of the Department of Health that the expenditure and every part thereof is necessary to protect the public health and to suppress a present menace to the public health of sufficient gravity to justify the said debt, and that no less expensive method of preventing or suppressing the menace exists. The legislative act authorizing the Department of Health to issue such an order in a proper case is R.S. 40:1-16, a section of the "Local Bond Act", namely R.S. 40:1.

In the 1939-1940 annual report there appears a tabulation listing the orders of necessity issued by the Department of Health of the State of New Jersey up to June 30, 1940. The orders of necessity issued during the 1940-1941 fiscal year are herewith presented.

Municipality	Date Issued	Subject	Estimated Cost	Status
Kearnsburg	9-10-40	Construction of additions and alterations to its municipal sewerage system	\$75,000	Not built
Hasbrouck Heights	10-4-40	Construction of trunk and lateral sewers	10,000	Under construction
Belmar	11-12-40	Construction of additions and alterations to its municipal sewerage system	65,000	Under construction
Long Branch	12-10-40	Construction of additions and alterations to its municipal sewerage system	921,000	Not built
Deal	1-14-41	Construction of outfall sewer and appurtenances	40,000	Under construction
Seaside Heights	2-4-41	Construction of additions and alterations to its municipal sewerage system	12,000	Constructed
Surf City	4-8-41	Construction of steel water storage tank	10,000	Under Construction
Maywood	6-10-41	Construction of sewers and additions and alterations to its municipal sewerage treatment plant	226,000	Not built
Wood-Ridge	6-10-41	Construction of additions and alterations to its municipal sewerage system	70,000	Under construction

No. 5—REVISION OF "RULES AND REGULATIONS FOR THE PREPARATION AND SUBMISSION OF DESIGNS FOR SEWER SYSTEMS . . ." IN THE MATTER OF SEWER GRADES.

The said Rules and Regulations adopted by the Department of Health of the State of New Jersey in 1913, and revised in 1925, were amended at a meeting held on June 10, 1941, as follows:—

That items "Materials" and "Minimum Grades" in the rules and regulations be replaced by the following "Materials and Minimum Grades":

"The sewers shall be designed with such hydraulic slope as will give a mean velocity of not less than 2.0 feet per second, when flowing full or half full, based on Kutter's formula with $n = .013$ for glazed tile, concrete, brick, or segmental block; and with $n = .011$ for asbestos cement pipe (transite, or equal) or enamel lined cast iron pipe.

Size of pipe	Fall in feet per 100 feet of sewer	
	$n = .013$	$n = .011$
8 inch sewer	0.40 feet	0.24 feet
10 inch sewer	0.29 feet	0.18 feet
12 inch sewer	0.22 feet	0.14 feet
15 inch sewer	0.16 feet	0.10 feet
18 inch sewer	0.12 feet	0.08 feet
20 inch sewer	0.10 feet	0.07 feet
24 inch sewer	0.08 feet	0.06 feet

"Where unusual strength is required, sewers shall be of cast iron. Inverted siphons shall consist of not less than two lines.

"When grades lower than those specified above are proposed, an explanation and reasons for the use of such grades should be included in the engineer's report."

No. 6—WATER SUPPLIES AT RURAL SCHOOLS.

Under the procedure set up in October 1939, the supervision of potable water supplies at public schools has been expanded, and into the supervisory expansion entered a survey of potable water supplies at 436 schools maintaining wells or other sources of supply on the school premises.

During the past year departmental procedure has been as follows:

1. School supplies where the service of a satisfactory water is indicated, based upon the routine yearly examination of a sample of water by the Bureau of Chemistry and/or the examination of samples collected by representatives of the department, have remained in status quo.
2. Newly established sources of supplies at schools, including especially those at which purification and/or treatment devices are installed, have been considered as a public water supply operating under the terms of Article 1, R.S. 58:11, and the department has required compliance with the statutes and rules and regulations appropriate thereto.

3. In the case of established supplies where the water delivered for potable purposes was found through inspections by departmental representatives to be unsafe for consumption, the department has considered the supply as "public" and acted in accordance with the aforesaid statute and the rules and regulations of the department and proceeded as follows:

a. A letter issued to the District Clerk of the Board of Education, advising that the supply did not meet the potable water standards of the department and outlining the department's authority and obligation under the provisions of Article 1, R.S. 58:11, and, requesting that appropriate steps be taken to secure the delivery of a safe water; otherwise, the department would be compelled to issue a notice prohibiting the use of water from the supply unless treated and/or purified by means acceptable to the department.

b. Failure to secure, through cooperative moves, the delivery of a safe water was followed by the issuance of a notice requiring abandonment of the supply or the installation of a satisfactory device for the purification and/or treatment of the supply.

c. When, subsequent to this department's advice to the Board of Education relative to the unsatisfactory quality of water being served, as in No. 3a, or, the issuance of a notice as in No. 3b, a water meeting the department's potable water standards has been secured, through sterilization or repairs to wells or cisterns, the interested school board has been advised of the delivery of a safe water, and the supply has been classified as in No. 1; i.e., to remain in status quo pending future findings.

d. The approval of plans, specifications and other engineering data has been required only in the case of the installation of new sources of supply or purification and/or treatment devices.

e. In the approval of a purification and/or treatment device a condition has been established requiring the services of a licensed operator (R.S. 58:11-14 through R.S. 58:11-18).

f. Following an approval of either a new well or a purification and/or treatment device, the supply has been classed as a public potable water supply in all respects (with the exception of No. 4); i.e., at least four samples to be submitted from the supply for examination by the Bureau of Chemistry during the school year, inspection by representatives of the department, submission of monthly operating statements covering the use of treatment devices, etc.

4. The requirement for a licensed operator of the system (Chapter 206, P. L. 1938) has been waived; the system, in nearly every case, consists of nothing more than plumbing, etc., located within the confines of a single building.

Under the above procedure the following actions were taken and results obtained (* indicates cases in which the department had not been successful in securing the delivery of a water meeting its potable water standards as of June 30, 1941):

<i>Location and Name of School</i>	<i>Status of Water Supply</i>
<i>Bergen County</i>	
Saddle River Boro Wandell School	Supply was temporarily abandoned following department's first letter. No notice required.
<i>Burlington County</i>	
* Mt. Laurel Twp. Masonville School	Supply intermittently polluted, contract let for repairs to well during summer vacation. No notice required.
<i>Camden County</i>	
Voorhees Twp. Kresson School	Following department's letter (first) well was unsuccessfully sterilized—use to be discontinued until satisfactory water secured. No notice required.
Winslow Twp. Sicklerville School	Pollution abated by sterilization following reinspection. No notice required.
<i>Cape May County</i>	
Dennis Twp. South Seaville School	Following reinspection a new well point and pump were installed resulting in the delivery of a satisfactory water. No notice required.
<i>Cumberland County</i>	
Greenwich Twp. Primary School No. 5	New well seal installed as per department's recommendation. No notice required.
<i>Gloucester County</i>	
Deptford Twp. Westville Grove School	Well polluted at time of survey but pollution abated on subsequent inspections. No notice required.
West Deptford Twp. Mantua Grove School	Well polluted and not properly sealed at time of survey. Water satisfactory on three subsequent inspections. Well unsealed. No notice issued.
<i>Hunterdon County</i>	
Alexander Twp. Everittstown School	Following reinspection satisfactory water secured by sterilization of well. No notice required.
Clinton Twp. Cokesbury School	New well drilled, found to be polluted, temporarily abandoned pending installation of seals and sterilization. Notice issued on original well and referred to the Attorney General on May 21, 1940.
Delaware Township Moore School	Satisfactory water secured by sterilization of well following notification by mail. No notice required.
Delaware Twp. Van Dolah School	Unsatisfactory water being served on reinspection. Pollution abated by sterilization of well following notification. No notice required in 1941—supply had been under notice dated January 16, 1940.

<i>Location and Name of School</i>	<i>Status of Water Supply</i>
<i>Hunterdon County (continued)</i>	
Delaware Twp. Kendall School	Unsatisfactory water being served on reinspection. Polluted well abandoned—new well found to be polluted. Supply not to be used until treatment device is installed. Notice on old well January 16, 1940. No notice required on new well.
Kingwood Twp. Baptistown School	Satisfactory water served by sterilization of water from well in cooler. Department acquiesced in procedure to end of school year. No notice required.
* Lebanon Twp. Bunnvale School	Following original letter pollution was abated by sterilization. On reinspection unsatisfactory water being served. Notice issued May 13, 1941.
Raritan Twp. Klinesville School	Sterilization of well following correspondence produced satisfactory water. Seal to be repaired during vacation. No notice required.
Readington Twp. Three Bridges School	Satisfactory water secured by sterilization of well following original letter. No notice required.
Readington Twp. Readington School	Yearly mail sample unsatisfactory. Sterilization of well produced satisfactory water. Notice issued April 9, 1940.
Union Twp. Jutland School	Supply temporarily abandoned until satisfactory water secured by sterilization of well. No notice required.
<i>Middlesex County</i>	
East Brunswick Twp. Weber School	New well installed after notice. Water satisfactory but plans not approved as of June 30, 1941. Notice issued April 8, 1941.
Madison Twp. Millbridge School	Unsatisfactory well abandoned following notice. Notice issued February 13, 1940.
Piscataway Twp. Randolphville School	Satisfactory water secured by sterilization of well following department's first letter. No notice required.
<i>Monmouth County</i>	
Holmdel Twp. Holmdel School	A dug well, unsatisfactory on first inspection. Pollution abated on second and third inspections. Well believed to be an intermittent polluter. No notice issued.
Millstone Twp. Perrineville School	Unsatisfactory well abandoned following threat of suit. Notice issued April 9, 1940. Referred to the Attorney General on January 14, 1941.

<i>Location and Name of School</i>	<i>Status of Water Supply</i>
<i>Morris County</i>	
Jefferson Twp. Nolan's Point School	Indicated pollution abated on second inspection. No notice required.
Kinnelon Boro Kinnelon School	Satisfactory water secured after first letter by cleaning and sterilizing well. No notice required.
Roxbury Twp. Succasunna High School	Installation and use of water from a new well approved May 13, 1941. No notice required.
<i>Ocean County</i>	
*Little Egg Harbor Twp. Giffordtown School	Well polluted on reinspection. Notice issued May 13, 1941.
* Ocean Twp. Waretown School	Unsatisfactory water derived from 2 wells. New well to be drilled. Notice issued May 13, 1941.
<i>Passaic County</i>	
West Milford Twp. West Milford School	Satisfactory water secured by sterilization of well and installation of seal on department's recommendations. No notice required.
<i>Salem County</i>	
Alloway Twp. Alloway School	Satisfactory water secured by the installation of a hypochlorite feeder approved February 4, 1941. Notice issued October 4, 1940.
Elsinboro Twp. School No. 3	Unsatisfactory well temporarily abandoned. Notice issued December 10, 1940.
* Lower Alloway Creek Twp. Hancock's Bridge School	Cooperative moves unsuccessful in securing potable water. Notice recommended for July 1941 meeting.
* Mannington Twp. Compromise School	Cooperative moves unsuccessful in securing delivery of satisfactory water. Notice issued May 13, 1941.
* Oldmans Twp. Auburn School	Sterilization of well, following inspection, resulted temporarily in delivery of potable water. Water unsatisfactory on reinspection at close of year. No notice issued.
* Quinton Twp. Harmony School	Unsatisfactory water on reinspection. Notice recommended for July 1941 meeting.
<i>Somerset County</i>	
Branchburg Twp. North Branch School	Unsatisfactory well abandoned pending treatment of supply. No notice required.
Branchburg Twp. South Branch School	Unsatisfactory well abandoned. Notice issued January 16, 1940. Referred to the Attorney General on May 2, 1940.

<i>Location and Name of School</i>	<i>Status of Water Supply</i>
Watchung Boro Watchung School	Satisfactory supply secured by the installation of a hypochlorite feeder, approved October 4, 1940. Notice issued February 13, 1940.
<i>Sussex County</i>	
Fredon Twp. Fredon School	Satisfactory water secured by sterilization of well on department's recommendation. Notice issued on January 16, 1940. Referred to the Attorney General on March 12, 1940.
* Green Twp. Consolidated School	Sterilization of well unsuccessful. Unsatisfactory water being delivered. School Board of Education promised to rehabilitate during vacation. Notice issued February 4, 1941.
Montague Twp. Brick House School	Satisfactory water secured through sterilization of well. No notice required.
Vernon Twp. Vernon School	Satisfactory water secured by sterilization of well. No notice required.
<i>Warren County</i>	
Knowlton Twp. Hainesburg School	Satisfactory water secured by cleaning cistern. No notice required.
Lopatcong Twp. Morris Park School	Unsatisfactory sample. Supply temporarily abandoned pending cleaning of cistern during vacation. Notice issued April 8, 1941.
Lopatcong Twp. Uniontown School	Satisfactory water secured by the installation of a hypochlorite feeder, approved September 10, 1940. Notice issued February 13, 1940.
Pohatcong Twp. Finesville School	Satisfactory water obtained by repairs to and cleaning of cistern on department's recommendation. No notice required.

Those supplies listed as temporarily abandoned were replaced by either purchased bottled water, use of a local well off the school property or water brought to school by pupils.

The foregoing tabulation shows that 47 or 11% of the school supplies failed to meet this department's potable water standards during the past year; at the close of the fiscal year, 9 or 2% of the school supplies failed to meet this department's requirements.

During the past year: 9 wells were temporarily abandoned and 2 permanently abandoned; 5 new wells were installed; three hypochlorite feeders were approved and installed, bringing the total of these units installed since

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DEPARTMENT OF HEALTH

October 1939 to six; 20 wells or cisterns were sterilized and 3 were repaired in an effort to secure the delivery of a safe water; and, in 4 cases, wells formerly polluted were found to be satisfactory on two or more reinspections. To accomplish the results obtained the department issued nine notices during the past year and used nine notices formerly issued; in one case, the services of the Attorney General were required.

Inasmuch as school supplies are classed as public potable water supplies, each one has required the same attention, inspection routine and office detail as a municipal water supply, and has resulted in a considerable increase in the volume of technical, legal and clerical work as well as a corresponding increase in the number of samples of water submitted to the Bureau of Chemistry for examination.

During the year, in the supervision of water supplies at rural schools, the time and labor expanded in the bureau are as follows: technical staff (inspection, correspondence and legal), 300 man-days; clerical staff, 150 man-days.

No. 7—PHYSICAL CONNECTIONS
ORIGINAL PERMITS ISSUED

NAME OF MUNICIPALITY	NAME OF OWNER	PUBLIC POTABLE WATER SUPPLY	UNAPPROVED WATER SUPPLY	ORIGINAL PERMIT DATE ISSUED
Atlantic City	Chelsea Hotel Corporation	Atlantic City Water Department	Artesian well	179 7-9-40
Haledon	Seyer Silk Dyeing & Finishing Company	Haledon Water Department	Molly Ann Brook	180 2-4-41
PERMITS CANCELLED				
Paterson	"The Walder Realty Company"	Passaic Valley Water Commission	City water cistern	115 | 4-2-29
Montclair	T. A. Adams	Montclair Water Department (North Jersey District Water Supply Commission)	Private artesian wells	143 6-3-30

No. 8—ESTABLISHMENT OF FACTORIES ON WATERSHEDS

During the year, under the provisions of Chapter 280, Laws of 1921 (now known as Sect. R.S. 58:10-17 to 58:10-21), the following applications were approved for the construction of industrial plants upon watersheds in the State:

- No. 168—Kenilworth—Gering Products, Inc.—Plant for the manufacture of Pyroxylin and Acetate base and new waste plastic materials.
- No. 169—Caldwell Township—Curtiss-Wright Corporation—Plant for the manufacture of propeller parts.
- No. 170—Belvidere—New Jersey Powder Company—Plant for the manufacture of smokeless powder.
- No. 171—River Vale—Republic Engineering Products, Inc.—Plant for the manufacture of materials or goods for photographic emulsions.
- No. 172—Hampton—North Jersey Dairyland, Inc.—Plant for the bottling and pasteurizing of milk.
- No. 173—Dover—Seeley Tube and Box Company—Plant for the manufacture of spiral wound paper tubes.

During the year, under the provisions of the above-mentioned laws, the following application was disapproved:

Montville Township—Millbrook Corporation—for the reasons:

- (a) That, in the opinion of the Department of Health, the plan purporting to show and describe the works for the treatment of its industrial wastes is unsatisfactory in that it is incomplete, unintelligible, and was not prepared by a professional engineer, pursuant to the provisions of Chapter 342, P. L. of 1938.
- (b) That the Passaic Valley Water Commission requested the Department of Health of the State of New Jersey, in its communication dated August 21, 1940, to refuse the applications of the said Millbrook Corporation to establish the proposed factory, and to discharge industrial wastes into the watershed of the Passaic Valley Water Commission on the premise that, in the opinion of the said Commission, its interests would not be protected sufficiently.
- (c) That the Local Board of Health of the Township of Parsippany-Troy Hills, in the County of Morris, and State of New Jersey, located on the Passaic River watershed below the point of the proposed establishment of the aforescribed factory strenuously objected in its communication to the said Department of Health, dated August 27, 1940, to the establishment of a factory on the Crooked Brook watershed, which would tend to pollute same.

No. 9—CERTIFICATION OF WATER FOR USE ON INTERSTATE CARRIERS

The procedure in the certification of water for use on interstate carriers continues as outlined in the report for the year ending June 30, 1940. For the calendar year 1941 information was requested by the United States Public Health Service for 115 carriers. These carriers were taking water supplied from 40 public potable water supply systems of the state and 2

sources of privately owned supplies. The watering points (railroad terminals, stations, docks, airports, and warehouses), 89 in number, were located in 43 towns or municipalities.

No. 10—LICENSING OF OPERATORS AND SUPERINTENDENTS OF WATER TREATMENT PLANTS, SEWAGE TREATMENT PLANTS AND WATER SUPPLY SYSTEMS—ADDITIONAL RULES AND REGULATIONS

After the passage of Chapter 206, P. L. of 1938, (now R. S. 58:11-18.1 through 58:11-18.6) a committee was appointed to formulate the additional rules and regulations as provided for in this law. After the rules and regulations were completed the committee was reappointed by the department for a period of one year to participate in the examinations for licenses and to serve in an advisory capacity in the administration of the provisions of the laws and the formulated rules and regulations. At the beginning of the fiscal year the committee—known as the Board of Examiners for the Licensing of Operators of Sewage Treatment Plants, Water Supply Systems and Water Purification and/or Treatment Plants—was composed of the following: Mr. Charles H. Capen, Jr., Chairman, West Orange, New Jersey; Mr. William F. Ayars, Salem, New Jersey; Mr. Edward P. Molitor, Springfield, New Jersey; Mr. Stephen A. Kowalchik, Trenton, New Jersey; Mr. Robert S. Shaw, Princeton, New Jersey; Mr. Donald M. Ditmars, Trenton, New Jersey.

After a brief illness on May 3, 1941 Mr. Winder died. The following resolution was adopted by the Board of Examiners:

"In the passing of Frank M. Winder, the Board of Examiners for the licensing of operators of water supply systems, water purification and treatment plants and sewage treatment plants, has lost a faithful and conscientious member. His broad experience, good judgment and wise counsel were of inestimable value to the Board and he won the respect of all with whom he was brought into contact.

"Mindful of his constructive work on behalf of the Board, interwoven with a quiet strength based on ability and fineness of feeling for his fellow men, it is with deep regret that the Board of Examiners records its appreciation of him by adopting the following:—

"*Be It Resolved*, That the Board of Examiners learns to its sorrow and feeling of loss, of the untimely death on May 3, 1941 of Frank M. Winder who was one of the Board's most active members and whose clear insight and keen wisdom were an inspiration to all our members.

"*Be It Further Resolved*, That a copy of this resolution be spread upon the minutes of this Board and that a copy be sent to Mr. Winder's family as a testimonial of our sincere appreciation of his counsel and ability, and as an expression of our individual feeling of loss and sympathy for his family."

At a meeting of the Department (of Health of the State of New Jersey) on June 10, 1941, Mr. J. A. Carr, Ridgewood, New Jersey, was appointed to fill the vacancy created by Mr. Winder's death.

In order to clarify the scope of the new law providing for the licensing of operators of water supply systems, the department adopted the following preamble and resolution:—

"WHEREAS, Chapter 206, P. L. of 1938, provides that all persons under any title or designation who are now or shall hereafter be in direct general charge of water supply systems must be holders of licenses issued by the Department of Health of the State of New Jersey; and,

"WHEREAS, the Department of Health of the State of New Jersey is of the opinion that in order to enforce the provisions of said law, it becomes necessary to define a water supply system; therefore,

Be It Resolved, By the Department of Health of the State of New Jersey at a meeting held on this tenth day of October, A. D., one thousand nine hundred and thirty-nine that a water supply system be and is herewith defined as follows:

"A water supply system is 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."

Because of the specific nature of water treatment plants at rural schools, it was recommended by the Board of Examiners that the rules and regulations governing the issuance of licenses to operate water treatment plants be amended to include a new classification. At a meeting of the department on March 11, 1941, motion was made, seconded and carried that a new classification be established as follows:

"Fifth Class:

"All plants employing sterilization process of treatment with approved or accepted capacities of approximately 25,000 or less gallons per day, the distribution of water from which is conveyed to a public school.

"(The holder of this license may operate the plant for which he is licensed.)"

Since the license classifications were not designed for applications to utilities at State-owned institutions and attempts to interpret them as applying to such utilities were confusing, at a meeting of the department on April 8, 1941, the following preamble and resolution was adopted:

"WHEREAS, In accordance with the provisions of R.S. 58:11-14 through 58:11-18.6, the Department of Health of the State of New Jersey adopted Rules and Regulations governing the issuance of licenses to operate sewage treatment plants, water purification and treatment plants, and water supply systems, and from time to time established the classification of licenses required in the operation of the various utilities; and,

"WHEREAS, Prior to the enactment of Chapter 206, P. L. of 1938 (now R.S. 58-11-18.1 through 58:11-18.6), the compliance with the operator licensing law, R.S. 58:11-14 through 58:11-18, in so far as the State Institutions were concerned, was considered an act of cooperation on the parts of the Department of Health and the Department of Institutions and Agencies of the State of New Jersey; but,

"WHEREAS, After the enactment of Chapter 206, P. L. of 1938 representatives of the Department of Health of the State of New Jersey were informed by Theodore Backes, Assistant Attorney General, that persons in charge of the operation of sewage treatment plants, water supply systems and water purification plants, regardless of the ownership of these utilities, were required to hold licenses in accordance with the provisions of the aforementioned laws; and,

"WHEREAS, The Department of Institutions and Agencies of the State of New Jersey and the New Jersey Civil Service Commission were advised of the opinion of the said Theodore Backes that licenses were required in the operation of sewage treatment plants, water supply systems and water purification and treatment plants serving public institutions; and,

"WHEREAS, The Department of Health of the State of New Jersey has received numerous requests from prospective holders of licenses to operate sewage treatment plants, water purification and treatment plants and water supply systems serving state institutions relative to the classification of the licenses required in the operation of the said utilities; therefore,

"Be It Resolved, By the Department of Health of the State of New Jersey, at a meeting held on the eighth day of April, A. D. one thousand nine hundred and forty-one, in accordance with the provisions of R.S. 58:11-14 through 58:11-18.6 and the Rules and Regulations adopted by the said Department of Health in accordance with the provisions thereof, that the licenses required in the operation of utilities serving the various institutions owned by the State of New Jersey shall be as follows:

"A. For Sewage Treatment Plants—*Grade S*

"B. For water purification and treatment plants:

"1. All plants employing a combination of sedimentation, coagulation, filtration and sterilization processes—*Third Class*

"2. All plants employing a sterilization process alone—*Fourth Class*

"C. For water supply systems:

"1. All systems deriving water from surface water run-off (or streams) or employing purification and treatment units or both, and having designed or accepted capacities of not less than approximately 100,000 gallons per day—

Group 3

"2. All other systems—*Group 4*; and,

"Be It Further Resolved, That the above established classifications of licenses are subject to change if and when deemed advisable by the Department of Health of the State of New Jersey; and,

"Be It Further Resolved, That the Department of Health of the State of New Jersey still reserves the right to classify the license required in the operation of any particular utility if circumstances require the exercising of this right."

In the administration of the operator licensing laws, it may be reported that the owners of utilities in general have cooperated in their efforts to comply. In the following instances, however, the Attorney General was requested to institute proceedings to collect the penalties prescribed and to enjoin from further or continued violation:

1. Hoboken—Lack of license to operate water supply system
2. West Keansburg Water Company—Lack of license to operate water supply system
3. Woodbury Heights Water Company—Lack of license to operate water supply system
4. Wrightstown—Lack of license to operate sewage treatment plant

Prosecution in the Common Pleas Court of Gloucester County of a case started during the year of 1939-40, resulted in the imposition of a fine upon the Borough of Westville. West Keansburg Water Company provided a licensed operator. Hearings upon the Woodbury Heights Water Company and the Hoboken cases are pending, and, the matter of the Borough of Wrightstown is held in abeyance pending the construction of a new plant.

During the third year of the existence of R.S. 58:11-18.1 through 58:11-18.6 (Chapter 206, P. L. of 1938) and in accordance with the procedure inaugurated thereafter:

1. Eighteen licenses without examination (making a total of 333) were issued to operate water supply systems by virtue of: "Nothing in this act shall be construed to in anywise affect the tenure, term or status of any person holding a position requiring a license under the provisions of this act at the time of the passage of this act."

2. Two examinations were given for licenses. More applications were received for and more examinations were given on April 24, 1941 than at any other time since the original act was passed on February 9, 1918. A composite summary of the two examinations is as follows:

		Applications	Applications	Examinations	Licenses
		Received	Accepted	Given	Issued
Water Supply Systems	Oct.	28	24	21	10
	April	46	42	41	28
Water Treatment Plants	Oct.	31	30	29	17
	April	31	30	28	19
Sewage Treatment Plants	Oct.	22	17	15	11
	April	45	34	32	21
Totals	Oct.	81	71	65	38
	April	122	106	101	68
Grand Total		203	177	166	106

3. The net income from the license and renewal fees for the year was \$3,541.00.

Additional significance was given to the licenses to operate water supply systems and sewage treatment plants in the passage of Chapter 234, P. L. of 1941, a supplement to R.S. 58:11-14 through 58:11-18.6. The law as passed is as follows:

"CHAPTER 234

"An Act concerning persons in charge of public water systems and sewage disposal or treatment plants, and supplementing article five of chapter eleven of Title 58 of the Revised Statutes.

"Be It Enacted by the Senate and General Assembly of the State of New Jersey:

"I. No person now or hereafter licensed under the provisions of article five of chapter eleven of Title 58 of the Revised Statutes, having direct general charge of the operation and maintenance of public water systems or sewage disposal or treatment plants after five years' consecutive service in any such position shall be removed from his position or subjected to a reduction of salary except for good cause and after a public hearing. In computing such five years' service the time served before the passage of this act shall be included, as well as time served after the passage hereof. The public board, officer or commission having power of appointment of any such person or having the power to appoint a successor of any such person whom it is sought to remove or whose salary it is sought to reduce, shall formulate or receive charges, in writing, against such person and shall fix a time and a place for a hearing thereon. A written copy of the charges and a written notice of the time and place of the hearing shall be served upon the person sought to be removed at least five days prior to the hearing. At the hearing the public board, officer or commission shall hear all witnesses and receive all evidence produced and if the charges are found to be true in fact and just cause be shown, the public board, officer or commission may remove or reduce the salary of the person against whom charges are made.

"2. The purpose of this act is to prevent the unwarranted removal or reduction of salary without just cause of the individual who is now or shall hereafter be directly responsible for and in direct charge of the maintenance and operation of public water systems and sewage disposal or treatment plants. This act shall not, however, affect any public officer whose term of office is now or shall hereafter be fixed by statute.

"3. This act shall not apply to private corporations engaged in selling water to the public, either at wholesale or retail or to private corporations owning and operating public sewage disposal or treatment plants.

"4. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

"5. This act shall take effect immediately.

"Approved June 28, 1941."

The attitude of the department toward the adoption of such a law and its interest in the persons charged with the responsibility of maintaining adequate sewage facilities and safe water supplies for the inhabitants of

this State are adequately expressed in a letter dated June 17, 1941 from Dr. Mahaffey to Hon. Charles Edison, Governor, recommending his approval of the above-quoted law. Since this letter outlines briefly the philosophy of licensing these particular persons it is quoted in full:

"HON. CHARLES EDISON
Governor of New Jersey
State House
Trenton, New Jersey

"DEAR GOVERNOR EDISON:

"The Department of Health takes the liberty of requesting you to approve Senate bill 279 which has passed the Senate and the Assembly. The object of the bill is to grant tenure to operators of public water systems and sewage treatment plants licensed by the State Department of Health who have served five consecutive years. The bill affects only the operator who is in direct general charge of the plant.

"This bill is in line with a policy which the State Department of Health has been pursuing for several years. Operators of potable water purification and sewage treatment plants have been required by law to be licensed by the State Department of Health for several years. The department has established qualifications for admission of applicants for examination which in most cases require from four to six years of experience and training divided appropriately between practical experience and technical training.

"Marked advances have been made in potable water treatment and sewage treatment in recent years. Such plants are now highly mechanized and require skillful operation subject to laboratory control in order that satisfactory standards be maintained. They represent large capital investments and entail substantial expenditures for operation. In order to preserve this large public investment and to obtain commensurate benefits from it and to promote public health, it is essential that operators of such plants be well qualified. The licensing system now in force grew out of unfortunate experiences with unqualified operators. On the other hand, properly trained and capable men will not find such positions attractive unless there is reasonable assurance of tenure during good behavior.

"The tenure bill now before you would strengthen and render more effective the licensing system which the State Department is now administering.

"It is the judgment of the department that it is in the public interest that operators of these plants be regarded as career men and that tenure during good behavior is justly due them.

"For these reasons, it is respectfully recommended that this bill be approved."

"Very truly yours,

"J. LYNN MAHAFFEY, M. D.,

"Director of Health."

NO. 11—RARITAN RIVER

Based upon the findings of the investigation of the pollution of the Lower Raritan River, made by its representatives, the Department of Health of the State of New Jersey adopted on June 10, 1941, the following policy:—

WHEREAS, The Department of Health of the State of New Jersey, at a meeting held on June 13, 1939, adopted a resolution establishing certain minimum requirements for the treatment of domestic sewage, industrial wastes, or other polluting material discharged into the Raritan River and its tributaries to be observed in order that the waters of the said Raritan River should not be polluted in such manner as to cause or threaten injury to any of the inhabitants of this State, either in their health, comfort or property, said minimum requirements being as follows:

"1. The effluent shall contain no free acidity; that is, all titratable acidity shall be neutralized.

"2. The effluent shall be free of noticeable floating solids, scum, oil, grease, or sleek.

"3. The effluent shall be sufficiently free of color or turbidity, or both, so that after dispersion in the receiving waters, or not more than one thousand (1,000) feet above or below the point of effluent discharge, it will not substantially discolor, alter the natural color, or add to the turbidity of the receiving waters.

"4. The effluent shall be free of caustic alkalinity or other toxic or deleterious substances.

"5. The effluent shall be free of offensive odors.

"6. The effluent shall be of such quality that the most probable number of organisms of the Coli-aerogenes group shall not exceed one (1) per cubic centimeter in more than twenty-five per centum (25%) of the samples of effluent tested by the partially confirmed test; and, provided, further, that no single sample shall contain more than ten (10) organisms of the Coli-aerogenes group in one (1) cubic centimeter.

"7. The effluent after dispersion in the receiving waters, or not more than one thousand (1,000) feet above or below the point of effluent discharge, shall not reduce the dissolved oxygen content in such receiving waters below fifty per centum (50%) saturation. The aforesaid dissolved oxygen content shall be determined by the average of the results of the analysis of at least six (6) samples collected at approximately equal intervals during any eight (8) hour period of any day"; and,

WHEREAS, The Department of Health of the State of New Jersey, through investigations and studies made by its representatives, has found and determined that it is necessary to revise the said minimum requirements and to establish certain additional minimum requirements in order that the waters of the said Raritan River shall not be polluted in such manner as to cause or threaten injury to any of the inhabitants of this State, either in their health, comfort or property; and,

WHEREAS, The Department of Health of the State of New Jersey has found and determined that in order to abate and control pollution of the Raritan River and its tributaries so that it will not cause or threaten injury to any of the inhabitants of this State, either in their health, comfort or property, it is necessary that the dis-

solved oxygen content of the Raritan River from its confluence with the Millstone River to the Victory Bridge connecting Perth Amboy and South Amboy, and its tributaries emptying into it between those points, be at all times not less than fifty per centum (50%) saturation, and that in consideration of such variable factors as location, size, character, and flow, and of the varied uses of the waters of the Raritan River, such as recreation, navigation, industrial water supply, industrial development, maintenance of fish life, shellfish culture, and other purposes, and of the varying characteristics of the tidal and non-tidal parts of the stream, it is necessary that the Raritan River be divided into two zones characterized generally as tidal and non-tidal, and that minimum requirements be established for each of the two zones; therefore,

Be It Resolved, By the Department of Health of the State of New Jersey, at a meeting held on the tenth day of June, A. D., one thousand nine hundred and forty-one, that for the purpose of abating and controlling the existing pollution and future pollution of that section of the Raritan River between its confluence with the Millstone River and Victory Bridge connecting Perth Amboy and South Amboy, and its tributaries emptying into it between those points, so that the waters thereof shall not be polluted in such manner as to cause or threaten injury to any of the inhabitants of this State, either in their health, comfort or property, the said section of the said Raritan River and its tributaries emptying therein shall be divided into two zones, to wit:

ZONE I: Zone I shall be that part of the Raritan River and its tributaries emptying therein extending from its confluence with the Millstone River to the Fieldville (5 mile) dam.

ZONE II: Zone II shall be that part of the Raritan River and its tributaries emptying therein extending from the Fieldville (5 mile) dam to the Victory Bridge connecting Perth Amboy and South Amboy; and,

Be It Further Resolved, That no domestic sewage, industrial wastes or other polluting matter shall be discharged into, or permitted to flow or fall into, or be placed in the waters of the respective zones of the Raritan River and its tributaries unless such domestic sewage, industrial wastes or other polluting matter shall first have been so treated as to produce an effluent which will meet the following minimum requirements:

ZONE I

1. The effluent shall contain no free acidity; that is, all titratable acidity shall be neutralized.
2. The effluent shall be free of noticeable floating solids, scum, oil, grease, or sleek.
3. The effluent shall be sufficiently free of color or turbidity, or both, so that after dispersion in the receiving waters, or not more than one thousand (1,000) feet above or below the point of effluent discharge, it will not noticeably discolor or add to the turbidity of the receiving waters.
4. The effluent shall be free of caustic alkalinity or other toxic or deleterious substances.
5. The effluent shall be free of offensive odors.
6. The effluent shall be of such quality that organisms of the Coli-aerogenes group shall be present in not more than 20% of the one (1) cubic centimeter portions examined from any one sample or any series of samples of effluent tested. For

the purpose of the test for organisms of the Coli-aerogenes group a sample shall consist of five (5) one (1) cubic centimeter portions.

7. The effluent shall have a biochemical oxygen demand not exceeding in the average over any four (4) hour period of a day one hundred (100) parts per million and not exceeding at any time one hundred twenty-five (125) parts per million.

ZONE II

1. The effluent shall contain no free acidity; that is, all titratable acidity shall be neutralized.
2. The effluent shall be free of noticeable floating solids, scum, oil, grease, or sleek.
3. The effluent shall be sufficiently free of color or turbidity, or both, so that after dispersion in the receiving waters, or not more than one thousand (1,000) feet above or below the point of effluent discharge, it will not noticeably discolor or add to the turbidity of the receiving waters.
4. The effluent shall be free of caustic alkalinity or other toxic or deleterious substances.
5. The effluent shall be free of offensive odors.
6. The effluent shall be of such quality that organisms of the Coli-aerogenes group shall be present in not more than 20% of the one (1) cubic centimeter portions examined from any one sample or any series of samples of effluent tested. For the purpose of the test for organisms of the Coli-aerogenes group a sample shall consist of five (5) one (1) cubic centimeter portions.
7. The effluent shall have a biochemical oxygen demand not exceeding in the average over any four (4) hour period of a day one hundred fifty (150) parts per million and not exceeding at any time one hundred seventy-five (175) parts per million; and,

Be It Further Resolved, That all analyses and tests regarding the minimum requirements herein prescribed shall be performed in accordance with the procedures contained in the latest edition of "Standard Methods for the Examination of Water and Sewage," prepared, approved, and published jointly, by the American Public Health Association and the American Water Works Association; and,

Be It Further Resolved, That this resolution is 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 Raritan River and its tributaries in such manner that such pollution shall not cause or threaten injury to any of the inhabitants of this State, either in their health, comfort or property; and,

Be It Further Resolved, That this resolution shall not repeal the resolution adopted by the Department of Health of the State of New Jersey at a meeting held on November 15, 1938 establishing a policy relating to stream pollution, the source of which was not created, established, caused or maintained prior to November 15, 1938.

NO. 12—SEWAGE TREATMENT BY THE ATLANTIC CITY SEWERAGE COMPANY,
ATLANTIC CITY, N. J.

On March 13, 1940 the Department of Health of the State of New Jersey approved plans and specifications, and issued a permit to the Atlantic City Sewerage Company, permitting it to construct, in accordance with said plans and specifications, additions and alterations to its privately owned City Island sewage treatment plant, consisting of chlorine apparatus and appurtenances thereof and thereto, and mechanical apparatus for the removal of sludge from the existing sedimentation units, subject to certain conditions, particularly: "That the permits to construct and operate the sewerage works, the plans and specifications for which are herein approved, are issued on the premise that the said works will expand and intensify the method of treatment so as to cause the destruction of the organisms of the Coli-aerogenes group to the extent that they shall be absent, at all times, in the final effluent of the City Island sewage treatment plant, in all of the standard one cubic centimeter portions tested by the partially confirmed test as prescribed in the Standard Methods for the Examination of Water and Sewage, published by the American Public Health Association; and, effect the removal of suspended solids in all the sewage treated at the City Island plant in such manner as to cause the necessary reduction in the total suspended solids, so that the aforesaid effective chlorination will be obtained."

These plans and specifications were submitted in compliance with the terms of a notice issued by the Department of Health on October 19, 1937, which required that the said company must and shall prior to May 15, 1938, expand and/or intensify the method of sewage treatment at the City Island plant so that the expanded and/or intensified method of sewage treatment will comprise efficient sedimentation and effective disinfection in accordance with the minimum requirements for sedimentation and chlorination as set out by the rules and regulations of the department.

At the request of the Atlantic City Sewerage Company, the department, on November 14, 1939, defined effective disinfection to mean: "continuous disinfection of all the sewage treated at the City Island sewage treatment plant by such means and in such manner as to cause the destruction of the organisms of the coli-aerogenes group to the extent that they shall be absent at all times in the final effluent in all of the standard one cubic centimeter portions," and efficient sedimentation to mean: "the removal of suspended solids in all of the sewage treated at the City Island plant by such means and in such manner as to cause the necessary reduction in the total suspended solids so that the aforesaid effective chlorination will be ob-

tained, including the satisfactory disposal of the sludge resulting therefrom."

On October 15 and 23, 1940, following the completion and the placement into operation of the above additions and alterations, representatives of the Department of Health investigated the efficiency of the operation of the City Island plant. The report on this investigation purported to indicate that the plant effluent did not meet, at all times, the condition of the permit relating to the destruction of the organisms of the coli-aerogenes group.

Being apprised of these findings the City of Atlantic City petitioned the Department of Health of the State of New Jersey that it amend the order of the department issued on October 19, 1937 on the premise that it is too stringent and cannot be met unless a heavier burden of cost for chlorination is imposed upon the rate payers in Atlantic City than is necessary, fair, proper and just. Thereupon the elect officials of the city and representatives of the Atlantic City Sewerage Company were permitted to appear before the Members of the Department of Health on April 8, 1941 to present their arguments in the matter of the aforesaid petition. At the conclusion of this hearing the Members of the Department of Health selected from its group a committee to further investigate the situation and report its findings to the board.

Accordingly this committee conferred further with representatives of the City of Atlantic City and the Atlantic City Sewerage Company on April 15, 1941. Upon the completion of its studies it made the following recommendations to the Members of the Department of Health, which, on motion, were adopted on May 13, 1941:

"1. That the definition of effective chlorination at the City Island Plant of the Atlantic City Sewerage Company be amended to read: Of all the standard (1 c.c.) portions examined from any one sample or series of samples of the final effluent not more than 20% shall show the presence of organisms of the Coli-aerogenes group. For the purpose of this determination, a sample shall consist of five (5) one (1) cubic centimeter portions.

"2. That all tests or determinations made shall be in accordance with the latest edition of Standard Methods for the Examination of Water and Sewage as published by the American Public Health Association and the American Water Works Association.

"3a. That the Atlantic City Sewerage Company shall maintain complete daily records of the chlorination at the City Island Plant, and, the records, at a minimum, shall include sewage flow, chlorine consumption, chlorine residual maintained in the final effluent, the density of the coli-aerogenes group in the standard samples examined (one such sample shall be collected from the final effluent at peak flow), and the time of collection of the samples.

"3b. That copies of the aforesaid records (3a) shall be submitted semi-monthly to the Department of Health of the State of New Jersey.

"4. That action upon the request of the City of Atlantic City that the dosage of chlorine be such as to maintain 'at all times a chlorine residual in the final effluent from the tanks of not less than 1 part per million' be held in abeyance pending the determination of the relationship between the chlorine residual and the density of the Coli-aerogenes group in the plant effluent.

"5a. That action upon the request of the City of Atlantic City that the quality of the effluent discharged from the City Island Plant, from a bacteriological standpoint, be reduced during the period of cold weather months—from October 15th to May 15th in each year—be held in abeyance until the Summer of 1942.

"5b. That during the Summer of 1941 and the Winter of 1941-42 representatives of the department make inspections of the receiving waters and sewage plant operations, and that said findings be placed before the representatives of the City of Atlantic City for discussion."

**No. 13—WATER SUPPLIES NOT NOW RECOGNIZED AS PUBLIC POTABLE
WATER SUPPLIES PURSUANT TO THE RESOLUTION ADOPTED ON
JANUARY 10, 1933.**

<i>Location</i>	<i>Owner</i>	<i>Source of Supply</i>
	Elmer F. Pullen, formerly Pearl	
Hamilton Township	E. Cranmer	1 well, 75' deep, 4" in diameter
Hamilton Township (Groveville Section) ..	George B. Rollings	Springs

Reference: Annual Report 1939, 1940

No. 14—WATER SUPPLIES ABANDONED FROM JULY 1, 1940

TO JUNE 30, 1941

<i>Location</i>	<i>Owner</i>	<i>Source of Supply</i>
Branchville	F. E. McNeille	Culvers Lake
Chatham Township	Chatham Colony Association, Inc.	1 well, 364' deep, 4" in diameter
Hamilton Township	C. A. Comp Estate	1 well
Hamilton Township	Philip Lacey Estate	1 well
Hamilton Township	Edward T. McCalliard	1 well
Mount Olive Township	Arthur Reid	2 springs

Reference: Annual Report 1939, 1940

**No. 15—THE STORM OF SEPTEMBER 1, 1940 AND ITS EFFECT UPON WATER
SUPPLIES AND SEWERAGE SYSTEMS IN SOUTHERN NEW JERSEY**

In the quiet early hours of September 1, 1940 little did the late stragglers and the more unfortunate humans who labored at their nightly tasks, realize that the rain, which began to fall at or about 1:30 A.M. in certain areas in South Jersey, would precipitate into a torrential storm which, in the next twelve more or less hours, would leave in its path destruction, hardship, and a menace to the public health. In fact, the storm, after gaining impetus, struck with such suddenness and fury that much property had been destroyed or menaced even before serious thought was given to precautionary measures. Probably the most serious menace created was the threatened destruction of scores of public potable water supplies and sewage treatment plants.

The principal purpose of this writing is to present a general description of the extent, intensity and duration of the storm, the menace to public potable water supplies, and sewage treatment plants, and the activities of the Bureau of Engineering in assisting the purveyors of the menaced water supply systems in the deliverance of a safe water to its consumers and the rehabilitation of the water supplies and sewage treatment plants.

In the parlance of the climatological authorities, storms are generally classified as follows:

1. **THUNDER STORM:** A thunder storm must necessarily be accompanied by thunder and is generally limited in extent. This type of storm originates within a watershed or, in the case of New Jersey, is carried into a catchment area by air currents from the Atlantic Ocean. Flooding caused by thunder storms usually occurs in the smaller flashy streams.

2. **EXTRA TROPICAL:** The extra tropical storms which generally occur in the summer and fall are usually of freak type. These storms are precipitated by tropical marine air masses being violently thrown aloft by contact with hills and mountains, or with colder air masses rising from the northeast and west which become stabilized over land. This condition results in heavy downpours over extended areas.

3. **HURRICANE:** The hurricane is of a larger proportion than the extra tropical storm which also occurs in the late summer and fall, but at a lesser frequency than the extra tropical storm. It always originates off the coast of the West Indies, thence proceeds northward accompanied by extremely violent wind and torrential rains. Upon reaching the land areas the storm soon acquires the general characteristics of an extra tropical cloudburst.

4. **TRANSCONTINENTAL OR CYCLONIC STORMS:** These storms are potential flood producers but are not important in these areas, because of the lack of snow covers and because the basins are relatively small in area. They originate over the southwestern states, over the Gulf of Mexico or occasionally over the central states. These storms are extensive and travel in the path of the prevailing westerly winds, and are particularly dangerous in the winter and early spring months.

5. **TORNADO:** The tornado is a wind storm.

The storm of September 1, 1940, was identified as the extra tropical storm of cloudburst proportion. This storm and a similar storm which occurred in North Carolina, at approximately the same time, apparently detached itself from the main storm originating in the tropics several days prior thereto. The main storm travelled seaward.

The area in New Jersey wherein a rainfall of 4" or greater fell during the course of this storm, was elliptical in shape, extending from the Delaware Bay northward to, and including, the western part of Burlington County, and from the Delaware River eastward to about Vineland.

The center of the storm occurred at Ewan's Mills, approximately 3 miles south-east of Mullica Hill, Gloucester County.

The watersheds affected in the order of severity are as follows:

- | | |
|-------------------|------------------|
| 1. Mantua Creek | 4. Salem Creek |
| 2. Raccoon Creek | 5. Alloway Creek |
| 3. Oldman's Creek | |

The flood that resulted in the Maurice River shed was the largest since the one that occurred in the year of approximately 1890; the flood in the Cohansey Creek approximated that of 1934; in Burlington and Camden Counties the storm was only of moderate intensity; the flood in the Rancocas Creek was exceeded by the flood in 1938.

The reported and the officially recorded rainfall in the affected areas are as follows:

<i>Place</i>	<i>Inches Rainfall</i>	<i>Time Standard</i>	<i>Remarks</i>
Bridgeton	4.1	1: A.M. to 11: A.M.	Official
Clayton	10.5	1: A.M. to 12: Noon	"
Deepwater	1.2	1: A.M. to 10: A.M.	"
Hammonton	2.6	7: A.M. to 2: P.M.	"
Indian Mills	4.4	5: A.M. to 1: P.M.	"
Millville	2.8	7: A.M. to 1: P.M.	"
Moorestown	4.5	1: A.M. to 11: A.M.	"
Vineland	3.4	7: A.M. to 1: P.M.	"
Woodbury	6.5	1: A.M. to 11: A.M.	"
Ewan's Mills	24.		Reported

The apparent path of the storm was northeasterly into the Commonwealth of Pennsylvania, thence southeasterly into New Jersey; where it fanned out into the northerly and southerly directions. It will be noted that on September 1, 1940 not a drop of rain fell along the Atlantic Coast in the vicinity of Atlantic City.

Another interesting observation is that within the center of the storm in Gloucester County, a rainfall of 18" or greater fell over an area of approximately 100 square miles.

As stated above, "Extra Tropical Storm" is of the freak type and may occur over any part of the land area where freak air pressure conditions may develop. In other words, it is not to be construed that this storm is common only to the South Jersey area of the state—it may occur in any part of the state where conducive conditions may be created.

The Department of Health of the State of New Jersey received its first notice of the devastating defects of the storm in the early morning of September 1, 1940. This notice concerned the washout of the municipal water treatment plant at Woodbury, N. J. Immediately upon the receipt of this information the services of the Bureau of Engineering were made available to the City of Woodbury.

The first procedure undertaken was to provide an adequate source of satisfactory water for public potable uses and fire protection purposes. This was accomplished by connecting to the Woodbury distribution water supply system the Wenonah and Colonial Manor systems, and two privately owned wells supplying theatres in the City of Woodbury. The water

derived from the theatre wells was chlorinated; the apparatus was hired particularly for this purpose.

Simultaneously, the officials were proceeding with the rehabilitation of the pumping station and water plant appurtenances. The first step in the rehabilitation was to pump out and flush thoroughly the storage reservoir located at the plant site. This was completed by 5 P.M. September 2. Before filling the reservoir the internal facing was thoroughly scrubbed with a concentrated hypochlorite solution. By 6 P.M. of September 2 one of the wells at the water plant was ready to be put into service.

After scrubbing and sterilizing the reservoir it was filled with water derived from the well. During the period of filling, ten pounds of HTH were injected into the reservoir. Before permitting the water to enter the distribution system, chlorine residuals were checked throughout the reservoir proper. It was determined that the water contained in this unit had an average residual of approximately 1 part per million. The pumping of the water into the system started at about 8 P.M. Tests for chlorine residual in water conveyed by the system were made frequently at Woodbury and Woodbury Heights.

Noting that a strong residual was present, fire hydrants and all dead ends on the distribution system were flushed throughout its entire length.

Samples were also collected at various points on the system at periodical intervals, in order to determine the quality of the water delivered to consumers.

Approximately one week transpired before the Woodbury water supply returned to normalcy.

Of the scores of water supply systems located in the area affected by the storm, the Bureau of Engineering availed the services of its representatives to purveyors of 50 water supply systems. Since the Woodbury case typifies the conditions experienced at the other supplies affected by the flood, there appears to be no point in reciting the activities in each instance. However there is presented a summary of the water supplies visited and the status of each.

STATUS OF SUPPLIES IN FLOODED AREA IN SOUTHERN PART OF NEW JERSEY

<i>Flooded Supplies</i>	<i>Supplies Found to be Delivering Water of Suspicious Quality</i>	<i>Supplies Found to be Delivering Water of Satisfactory Quality</i>
Blackwood	Clementon	Berlin
Bridgeton	Gloucester	Beverly
Elmer	Woodstown (broken main)	Bordentown
Grenloch		Bridgeport
Haddonfield		Brooklawn
Haddon Heights (N. J. Water Co., Ashland Terrace)		Browns Mills Water Co.
Laurel Springs		Clayton
Lumberton		Clementon-Flury Supply
Mantua Terrace		Clarksboro (E. Greenwich Twp.)
Mantua Twp. (Sewell Water Company)		Collingswood
Medford		Columbus
Medford Twp. (Taunton Lakes)		Crosswicks
Merchantville-Pennsauken		Mantua
Millville Water Co.		Mays Landing
Maple Shade		Marlton
Mount Holly		Moorestown
Mullica Hill		New Egypt
Pine Valley		Pemberton
Salem		Pitman (2)
Woodbury		Riverton-Palmira
		Sweddesboro
		Vineland
		Vincentown
		Westville
		Williamstown
		Wenonah

Similar investigations were made of the sewage treatment plants lying in the path of the storm. The status of the plants visited was as follows:

STATUS OF SEWERAGE SYSTEMS IN FLOODED AREA IN SOUTHERN
PART OF N. J.

<i>Sewage Treatment Plant Not Flooded</i>	<i>Flooded But Not Damaged</i>	<i>Plant Units Sewage By- passed</i>	<i>Damage to Plant Units</i>	<i>Manholes or Pumping Station By-passed</i>
Barrington	Bridgeton	Audubon	Audubon	Barrington
Brooklawn	Chester Twp.	Bridgeton	Blackwood	Chester Twp.
Collingswood	Delaware Twp.,	Delaware Twp.,	Delaware Twp.,	Delaware Twp.,
Egg Harbor	Conwick Sect.	Erlton Sect.	Erlton Sect.	Erlton Sect.
Haddon Heights	Haddonfield,	Glassboro	Glassboro	Glassboro
Hammonton	Cruthbert Rd.	Haddon Twp.,	Lakelands	Haddonfield
Manntua	Haddonfield,	Bettlemood	Medford	Merchantville.
Millville	Maple Ave.	Sect.	Lakes	Pennsauken
Paulsboro	Haddon Twp.,	Haddon Twp.,	Pitman No. 1	Westville
Wenonah No. 1	Blue Bird Sect.	W. Collingswood	Pitman No. 2	
Westville	Haddon Twp.,	Sect.	Woodbury	
Woodbury	W. Collingswood	Lakelands	Heights	
Wood-Lynne	Sect.	Medford Lakes		
	Haddon Twp.,	Merchantville-		
	Westmont	Pennsauken		
	Merchantville-	Oaklyn		
	Pennsauken	Pitman No. 1		
	Mt. Ephraim	Pitman No. 2		
	Oaklyn	Westville		
	Wenonah No. 2	Woodbury		
	Woodstown	Wrightstown		

No. 16—THE POLLUTION OF THE WATERS OF THE DELAWARE RIVER
AND ITS TRIBUTARIES

Activities relative to the control of pollution of the waters of the Delaware River and its tributaries have continued.

As a result of inspections made, additional notices were issued upon the following municipalities and corporations on July 9, 1940 and the date for compliance with the notices is June 1, 1942. Notices were based upon the provisions of Articles 1 and 2 of Chapter 10, Title 58; Chapter 12, Title 58 of the Revised Statutes and Chapter 146, Laws of 1939, (now Section 32:20-1 through 32:20-10 of the Revised Statutes, Interstate Commission on the Delaware River Basin):

Palmyra Borough, Riverside Township (Florence Thread Company), Riverside Township (Sewage Treatment Plant), Riverside Township (Storm Sewer), Swedesboro Borough, Swedesboro (Swedesboro Sewer Company), Wenonah (Stephen Green Estate).

In the matter of notices served during the preceding fiscal year upon the municipalities of Beverly, Camden, Gloucester and Riverton and corporations of Beaunit Mills, Inc., Campbell Soup Company, John R. Evans & Company, and Lang Mills, Division of The Ruberoid Company, with expiration dates of November 1, 1941, activities have consisted of correspondence, conferences and inspections to securing compliances with the terms of the aforesaid notices within the required time limit.

A total of approximately 36 man-working days was expended in the field.

No. 17—THE HACKENSACK RIVER WATERSHED

All sanitary sewage being discharged into the Berry's Creek tributary of the Hackensack River now receives a minimum degree of treatment, consisting of sedimentation, oxidation and chlorination. Except for minor changes in construction and plant operation in certain instances, the sewage treatment plants are operating in a satisfactory manner and the revival of aquatic life in the stream and the absence of complaints are evidence of the improvement.

All of the municipalities owning sewerage works discharging effluents into Overpeck Creek appeared before the Director of Health on July 1, 1940 to request an extension of time to comply with the notices issued against them to cease discharging insufficiently treated sewage. At a meeting of the department on July 9, 1940, the request was considered and an extension of time until January 1, 1941 was granted, provided the municipalities would enter into consent decrees. (This the municipalities refused to do).

On September 10, 1940, representatives of the affected municipalities again appeared before the department with the request for another extension of time since the Englewood Sewerage Company was about to transfer title to the City of Englewood. An extension until January 1, 1941 was granted.

The change in title of the Englewood Sewerage Company to the City of Englewood became effective on October 1, 1940. Since the private ownership of the sewerage works in Englewood made it difficult (if not impossible in some respects) to obtain the concerted action of all affected toward the construction of a trunk sewer and one sewage treatment plant to serve all of the Overpeck Creek drainage district and since the transfer of title eliminated the obstacles previously encountered, representatives of the various municipalities appeared before the department on January 14, 1941, to request an additional extension of time for the study and report upon the joint project by an unbiased engineer. The request was granted with the understanding that each of the municipalities would make a definite commitment relative to the procedure it would follow at the meeting of the department scheduled for September 1941.

Three hundred and forty-eight man-days' field work was done in the Hackensack River Valley during the Summer and Fall of 1940. The principal objects of the inspections made were, first, the collection of additional evidence, to determine the present status of sewage treatment plants concerning which notices had already issued and court cases were pending; second, the determination of the operating results of the new sewage treatment plants; and, third, the collection of data relative to the construction and operation of the remainder of the sewage treatment plants which did not comply with the policy requiring a minimum degree of treatment, consisting of sedimentation, oxidation and chlorination, and the owners of which had not already received definite orders to improve the treatment.

Flow was measured and samples were collected at the following sewage treatment plants concerning which notices have already issued:

Teaneck Township (Vandalinda Plant); Englewood, Leonia (North and South Side Plants), Palisades Park, Ridgefield and Ridgefield Park (East Side Plant.) Additional samples were taken at various established points in Overpeck Creek and Hackensack River. Hydrobiological studies were made of Overpeck Creek and the upper sections of the Hackensack River. And, additional flow studies were made.

The operation (with some experimentation) of the following new or altered sewage treatment plants was studied:

Bendix Aviation Corporation, Bendix; Hasbrouck Heights, Wood-Ridge, Hackensack, Little Ferry, New Milford.

Descriptions were obtained, samples were collected at, and operations were observed of the following sewage treatment plants:

Oradell, River Edge, Teaneck Township (Pomander Walk Plant and River Road Plant), Maywood, Westwood, Bogota, South Hackensack (Previously Lodi Township), Ridgefield Park (West Side Plant).

NO. 18—A NEW TYPE OF GROUND WATER SUPPLY COLLECTOR (RANNEY RADIAL WELL COLLECTING SYSTEM) AT PENNS GROVE, NEW JERSEY

On January 16, 1940 the Department issued permits to the Pennsgrove Water Supply Company for the construction and operation of a new source of supply consisting of a Ranney radial well collecting system. It was the first installation of its kind at a public water supply in New Jersey. The supply was constructed, and placed in operation, in January 1940.

The Penns Grove installation is located on the south side of New Jersey State Highway Route No. 48 about 1½ miles southwest of Penns Grove. The radial well draws from a strata of a Cape May formation at a level of twenty-five (25±) feet below the ground surface.

The collection unit consists of a center caisson, thirteen (13) feet inside diameter and about thirty-three (33) feet deep, and perforated collector pipes extending radially and horizontally from the center caisson. The caisson was built to provide for the extension from it of twelve (12) collector pipes, the ports for the same being located on three (3) center lines varying from twenty-two (22) feet to twenty-eight (28) feet in depth below the ground surface. If developed to the ultimate capacity of the supply there would be four (4) collectors at each of the three (3) center line elevations, the spacing for the complete unit being thirty (30) degrees on the periphery of the caisson.

Seven (7) collective pipes were installed varying in length from twenty-five (25) feet to one hundred thirteen (113) feet. The total length of the collective system is about five hundred twenty-five (525) feet. Each lateral collector is equipped with a shut-off valve controlled from the floor of the pumping station located over the caisson. The water flows by gravity through the lateral collectors into the caisson whence it is pumped by a deep well turbine directly to the distribution system. The supply was developed to the guaranteed minimum capacity of nine hundred thousand (900,000) gallons per day.

The method of construction of the radial collector unit was briefly as follows:

The reinforced concrete walls of the caisson were sunk to the desired depth. At the bottom of the caisson a water-tight concrete plug was poured. The floor of the caisson was sloped to a central sump. The collector pipes were projected horizontally by a hydraulic jack assembly. Each collector pipe was equipped with a pointed drive head slotted. As a collector pipe was projected the ground water

entered the head carrying with it a considerable volume of fine sand which was conveyed from the head through a threaded connection to a small pipe line running through the center of the collector pipe and discharging into the caisson, whence it was pumped continuously to waste during construction. No water was removed from the collector pipe as it was projected, the collector being allowed merely to fill through the one-quarter ($\frac{1}{4}$) inch by one and one-half ($1\frac{1}{2}$) inch slots. When the collector pipe had been extended the desired distance, or the maximum distance permitted by the physical features of the ground penetrated, the jack assembly and the header discharge pipe were removed. Each collector line was developed as necessary to produce the desired yield.

Lime feeding equipment was installed for pH adjustment. The lime is fed in a slurry in the caisson at each of the seven (7) collector port entrances. Chlorine is applied in solution on the discharge side of the pumps.

The permits issued by the Department for the construction and operation of the Penns Grove collector were subject to certain conditions usually made a part of permits issued by the Department for new sources of ground water supply, and certain special conditions, among which were the following:

"That the application of chlorine to the water supply, the use of which for public potable purposes is herein approved, shall be not discontinued unless authorized by the Department of Health of the State of New Jersey.

"That local laboratory control, satisfactory to the Department of Health of the State of New Jersey, shall be maintained for a period of not less than one year from the time the supply is placed in operation for public potable purposes, the laboratory control to include as a minimum the following periodic testing, all tests to be performed in accordance with the procedure established by the latest edition of Standard Methods for the Examination of Water and Sewage, published by the American Public Health Association:

Monthly (raw water):

1. Chlorine demand
2. Nitrogen cycle
3. Chlorides
4. Oxygen consumed
5. pH

Weekly (raw and treated water):

1. Completed test for Coli-aerogenes
2. 37°C. Bacteria count (agar)

Four Times Daily:

Residual chlorine (quantitative)

"That the recorded results of the chemical and bacteriological analyses listed in condition, aforementioned, be submitted weekly to the Department of Health of the State of New Jersey.

"That chlorination shall be employed as the minimum degree of treatment for all water to be sold or distributed from the source of water, the construction of which is herein approved."

The aforementioned conditions of the permits have been complied with since the Penns Grove supply was placed in operation. The laboratory control established and maintained by the company, in accordance with the conditions of the permit, together with the numerous analyses of samples collected by representatives of the Department, have resulted in the assembly of a large volume of data on the quality of the water produced.

The records show that the Penns Grove collector supply has met consistently, since placed in operation, the bacteriological standards of this Department for waters used for potable purposes.

No. 19a—CHANGE IN NAME OF WATER SUPPLIES

<i>Location</i>	<i>Present Name</i>	<i>Former Name</i>
Jefferson Twp.	Cozy Lake Estates, Inc.	Cozy Lake, Inc.
Mt. Olive Twp.	Budd Lake Manor Corp.	Gold Mine Manor Development Co.
Vernon Twp.	Lake Walkkill Club	Seckler & Shepperd, Inc.

DEPARTMENT OF HEALTH

NO. 20—STATUS OF SEWAGE DISPOSAL—ADDITIONS, ALTERATIONS OR NEW UNITS UNDER CONSTRUCTION OR CONSTRUCTED DURING FISCAL YEAR JULY 1, 1940 TO JUNE 30, 1941.

SUPPLEMENT TO TABULATIONS CONTAINED IN ANNUAL REPORTS FOR THE YEARS ENDING JUNE 30, 1939 AND JUNE 30, 1940

MUNICIPALITY AND COUNTY	SYSTEM OWNED BY	MUNICIPAL OR LOCALITY SERVED	Permanent Population 1940	Sewer Connections	DATE ERECTED	
					Original Plant	Existing Plant
Atlantic City (C.) Atlantic	Atlantic City Sewerage Company	Atlantic City	64,094	.....	1921	1940
Bayhead (B.) Ocean	Borough	Bayhead	499	659	1917	1940
Brooklawn (B.) Camden	Borough	Brooklawn	1919	.....	.....	1940
Butler (B.) Morris	Borough	Butler	3351	.....	.....	Under Const.
Haddon (Twp.) Camden	Township	Bloomingtondale	2606	.....	1924	Under Const.
Jamesburg (B.) Middlesex	Borough	W. Westmont section	*16,000	.....	.....	Under Const.
Millburn (Twp.) Essex	Township	Jamesburg	2128	.....	1941	Under Const.
Millburn (Twp.) Essex	Township	Cross Roads section	.....	10	.....	1941
Passaic (Twp.) Morris	Township	Deerfield Park Tract	.....	64	1941	Under Const.
Rutherford (B.) Bergen	Rutherford Joint Mtg.	Short Hills section	2664	.....	.....	Under Const.
Somerdale (B.) Camden	Borough	Stirling section	.....	.....	.....	1940
S. Bound Brook (B.) Somerset	Borough	Rutherford	15466	.....	.....	Under Const.
Wood-Lynne (B.) Camden	Borough	East Rutherford	7263	.....	.....	Under Const.
		Carlstadt	5644	3944	.....	1940
		Somerdale	1170	.....	.....	Under Const.
		South Bound Brook	1928	.....	1916	Under Const.
		Wood-Lynne	2861	780	1939	1940

* Equivalent contributing population (estimated).

No. 20—STATUS OF SEWAGE DISPOSAL AS OF JUNE, 1941—Continued
 (SUPPLEMENT TO TABULATIONS CONTAINED IN ANNUAL REPORTS FOR THE YEARS ENDING JUNE 30, 1939 AND JUNE 30, 1940.)

MUNICIPALITY AND COUNTY	Tanks										Filter Beds				Secondary Tanks				RECEIVING WATERS		REMARKS			
	Mechanical Screens	Rapid Mix	Flocculation	Single Story Plain	Single Story Mechanical	Imhoff	Other	Dosing Tank	Contact	Sprinkling	Intermittent Sand	Strainer	Aeration Tanks	Single Story Plain	Single Story Mechanical	Imhoff	Chlorine Contact	Separate Sludge Digestion	Sand Beds	Mechanical Sludge Dewatering		Chlorination	NAME	PREDOMINANT USE
Atlantic City																						Beach Thorofare	Recreational	City Island plant
Bayhead																						Recreational	Recreational and Shellfish	
Brooklawn																						Big Timber Creek	Recreational	
Butler																						Pequannock River	Recreational	
Haddon																						Branch of Cooper's Creek	Potable	
Jamesburg																						Manalapan River	Recreational	
Millburn																						Canoe Brook	Potable	
Millburn																						Canoe Brook	Potable	Temporary expedient to be abandoned when municipal sewer system is extended.
Passaic																						Passaic River	Potable	
Rutherford																						Berry's Creek	Recreational	
Somerdale																						Cooper River	Recreational	
S. Bound Brook																						Raritan River	Recreational	
Wood-Lynne																						Newton Creek	Recreational	

0 Alterations, additions or new units under construction or constructed during fiscal year.

DEPARTMENT OF HEALTH

No. 21—PRIVATE WATER SUPPLIES

Seventy-seven samples of water from private sources of supply have been examined in the Bureau of Chemistry and payment to the amount of \$635.00 has been made therefor through the Bureau of Engineering, which forwards and interprets the results obtained in the examination of such samples.

A charge of \$15.00 is made by the department for a complete chemical and bacteriological examination of a sample of water and a charge of \$5.00 for a bacteriological examination.

Report of Bureau of Food and Drugs

For the Year Ending June 30, 1941

WALTER W. SCOTFIELD, 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.

The basic law of the State on food and drug control was revised in 1939 to bring the requirements governing the preparation, storage, distribution and sale of foods, drugs, devices and cosmetics, into agreement with the requirements contained in the Federal Food, Drug and Cosmetic Act. This Revised Law became effective on January 1, 1940.

Misbranding of Foods. The sections of the Revised Food and Drug Act which provide that food shall be deemed misbranded unless the package contains the common or usual name of the article, and a list of all of the ingredients in case the product is composed of more than one ingredient, and a similar requirement in the case of drugs, in which a drug shall be deemed to be misbranded unless the active ingredients of the drug are stated on the package, resulted in a large increase in the correspondence with persons and firms seeking information in regard to revision of labels. The purpose of this legislation is to enable purchasers of foods and drugs to learn the exact composition of foods and drugs which they purchase.

Most of the manufacturers and packers of foods and drugs voluntarily sought information regarding the requirements of the law governing labeling and proceeded to make such changes in the labeling as to bring their products into conformity with the requirements of the revised law. There were, however, certain exceptions to this voluntary action.

The agents of this Bureau reported that meats and meat products which were packed in cans or in other types of packages were not marked with the names of the ingredients used in the preparation of these articles. In most of these cases, the meats and meat products were prepared and packed in establishments which were operated under the inspection and supervision of the Bureau of Animal Industry of the U. S. Department of Agriculture.

Written notices were forwarded to dealers in meat products, advising them that the laws of the State classed meats and meat products as misbranded unless the common or usual name of the products and a list of all the ingredients of the articles, appeared upon the labels. This matter was also directed to the attention of the Chief of the Bureau of Animal Industry of the U. S. Department of Agriculture. After notices had been twice sent to these meat packers and after several months had elapsed, samples of meat products were collected from the markets of this State, and eight prosecutions were instituted for the violation of the section of the law defining misbranding. Penalties were collected in each of these cases, without contest.

In the Spring of 1941, the Bureau of Animal Industry of the U. S. Department of Agriculture revised the regulations governing the preparation and packing of meats and meat products in establishments under their inspection, and in those cases in which meats or meat products are shipped in interstate commerce, to bring the labeling requirements of that Bureau into agreement with the provisions of the Federal Food and Drug Law, and also with the law of this State. Inasmuch as a large proportion of the meats and meat products distributed in New Jersey are packed under supervision of the Bureau of Animal Industry of the U. S. Department of Agriculture, it appears that meats and meat products are to be labeled so that buyers will be informed of the ingredients used in their preparation.

Much correspondence has been had with persons and firms manufacturing and distributing flavorings for use in the preparation of carbonated beverages. With few exceptions, these manufacturers have failed to comply with the provisions of the law governing labeling, by failing to list the ingredients used in the preparation of the flavors. An appeal has been made to the bottlers of non-alcoholic beverages to specify exactly the type of flavorings ordered and to insist that containers of flavorings accepted be marked correctly with a list of all the ingredients.

Embargoes Placed on Adulterated Drug. On March 29, 1941, the newspapers of the country printed statements in regard to a number of deaths which had resulted from the use of sulfathiazole tablets contaminated with phenobarbital. The statements as contained in the Associated Press release were confirmed by telephone communication with officials of the Food and Drug Administration of the Federal Security Agency at Washington, D. C., and it was learned that a large number of sulfathiazole tablets from the Winthrop Chemical Company of New York City, had been shipped throughout the country and that these tablets did contain in many cases dangerous quantities of phenobarbital. It was also learned that the Win-

throp Chemical Company had distributed the sulfathiazole tablets in New Jersey.

Acting upon the above advice, Dr. Robert P. Fischelis, Secretary of the State Board of Pharmacy and member of the State Board of Health, on the afternoon of March 29, 1941 contacted the State Police and suggested that a warning be broadcast on the teletype system, requesting local Police Departments to contact all hospitals, pharmacies and physicians, to determine whether any of the tablets of the particular lot were available. On the same afternoon, a notice was mailed to every hospital in the State of New Jersey, and to every one of the nearly nineteen hundred pharmacies in the State, advising them to discontinue the sale or use of sulfathiazole tablets from the Winthrop Chemical Company bearing the particular lot number. This teletype warning was relayed over the Police Teletype Systems of nine states in this section of the country, and was the first information of a specific character to be made public with respect to this lot of contaminated drug. A large number of tablets of this particular lot number were located by the Police, including one bottle in New Jersey.

On March 31, 1941 information was received from the Federal Food and Drug Administration to the effect that several other lot numbers of sulfathiazole tablets from the Winthrop Chemical Company were also contaminated with phenobarbital. After consultation with Dr. Robert P. Fischelis, Secretary of the State Board of Pharmacy, and with officials of the Attorney General's Department, it was decided to place under embargo all sulfathiazole tablets in New Jersey which had been manufactured by the Winthrop Chemical Company. A letter was sent on April 1 to each Local Board of Health of New Jersey, requesting them to place under embargo all sulfathiazole tablets from the Winthrop Chemical Company, under authority contained in Section 24:4-12 of the Revised Statutes of New Jersey, which grants authority to agents of the State Department of Health, or of Local Boards of Health of this State, to embargo a drug suspected of being adulterated or misbranded by giving notice that such drug is not to be removed or disposed of until permission for such removal has been given. Local Boards of Health promptly placed such embargoes upon sulfathiazole tablets from the Winthrop Chemical Company in the possession of wholesale drug companies, hospitals and pharmacies of this State.

It is gratifying to report that officials of the Local Boards of Health and also officials of the Police Departments of New Jersey, performed most effective service in locating the sulfathiazole tablets from the Winthrop Chemical Company, and in placing written embargoes upon all of these tablets in a very short space of time. This is the first instance in which it has been necessary for the State and Local Departments of Health of New

Jersey to place embargoes upon many packages in many different establishments located throughout the State.

Subsequent to the placing of the embargoes upon the sulfathiazole tablets, during the early part of April, 1941 it was learned that the tablets had been manufactured in New York State by the Winthrop Chemical Company during the first week in December, 1940, and that the tablets had been distributed by them shortly after their manufacture. It was also learned that certain officials of the Winthrop Chemical Company became aware on December 26, 1940 that sulfathiazole tablets manufactured during the first week of December were contaminated with phenobarbital. It has been established that these officials of the Winthrop Chemical Company did not advise any official agency of the fact that this contamination had taken place. Investigation has shown that agents of the Winthrop Chemical Company visited certain wholesale drug establishments in New Jersey and replaced certain lots of sulfathiazole tablets. This exchange of tablets was made without giving the proprietor of the wholesale drug establishment information regarding the reason for this exchange of tablets. It has been shown that no effort had been made by the Company to secure the return of large numbers of sulfathiazole tablets distributed by wholesale drug dealers to retail druggists and that no effort had been made to secure the return of the contaminated material distributed on prescription by the retail druggists.

During the month of April, 1941, the Food and Drug Administration of the Federal Security Agency made a close examination of sulfathiazole tablets distributed by Winthrop Chemical Company, and learned that five lots of sulfathiazole tablets manufactured in early December by the Winthrop Chemical Company were, in fact, contaminated with phenobarbital, although the officials of that Company denied that they had knowledge that certain of these lots of sulfathiazole tablets were contaminated. Following this disclosure, the Food and Drug Administration of the Federal Security Agency revoked the license granted to the Winthrop Chemical Company for the manufacture of a new drug, sulfathiazole.

The facts disclosed in this investigation proved that the alleged control covering the manufacture of sulfathiazole tablets by the Winthrop Chemical Company was ineffective, and that thousands of tablets distributed throughout the country supposed to contain sulfathiazole, were found to contain a dangerous quantity of phenobarbital.

This Bureau recommends that the embargoes placed upon the sulfathiazole tablets from the Winthrop Chemical Company remain in effect until this Company satisfies this Department that the embargoed sulfathiazole tablets manufactured by them, are not adulterated, or until such time as

the embargoed sulfathiazole tablets have been removed from the State by the Winthrop Chemical Company under the supervision of Local Health officials.

Embargoes Placed Upon Adulterated Cosmetic. Information was received from the Food and Drug Administration of the Federal Security Agency in April 1941 that a solution used as a cosmetic for the purpose of curling hair, had been found to be adulterated, under the provisions of the Federal Food, Drug and Cosmetic Act. This cosmetic preparation had been distributed to several persons or firms operating beauty parlors in New Jersey. The Federal Agency requested our cooperation in locating all of the shipments into this State of this adulterated product.

The agents of this Department located 307 units of this particular article in ten different establishments in this State. These articles were placed under written embargo by the agents of this Department and these embargoes remained in effect until May 16, 1941, when formal attachment of the goods in each case was made by the United States Marshal.

Dairy Farm and Milk Plant Inspection. The Department has continued to stress the importance of clean, safe milk for the consumer, and has caused 11,918 inspections to be made of dairy farms and 2,414 inspections of milk plants in New Jersey and other states where milk is produced and handled for consumption in this State. In addition, 22,014 sediment tests of milk have been made, as received at milk plants from dairy farms, to ascertain the cleanliness of milk. Detailed sanitary inspections have also been made at milk plants to see that such plants are operated in a cleanly manner and to ascertain if equipment is clean and satisfactory for the proper handling of milk.

Both recording and indicating thermometers are required upon milk pasteurizing equipment to insure milk being heated to the required temperature and for the proper length of time. Our agents check this equipment and the daily records of pasteurizing temperatures and holding time at each visit. The records of the temperatures to which milk is cooled after pasteurization are also checked at the time of inspection of milk plants.

The laws governing the sanitation of dairy farms and milk plants are also enforceable by Local Boards of Health and this Department has received excellent cooperation from these agencies in the inspection of dairy farms and milk plants.

Reports from Local Boards of Health covering the inspection of 12,616 dairy farms and 109 milk plants located outside the State of New Jersey, have been received in this office. A cooperative plan of inspection of milk

supplies has been worked out by the Local Boards of Health, to prevent unnecessary duplication of inspections by these agencies. This plan of cooperation also prevents duplication of inspection by this Department.

Dealers as well as producers and distributors of milk are held responsible for the cleanliness of milk and for the condition under which it is handled and the Department has continued with vigilance to direct attention to infractions of the law and prosecutions were instituted and permits were revoked where such actions were warranted.

The Department has continued to stress the importance of proper pasteurization of milk, as this process has proved the greatest safeguard against illness which may be caused by contaminated milk.

Investigations made during the year show that the milk supplied to consumers is of clean, safe quality and this is borne out by the fact that no outbreaks of communicable disease in this State have been attributed to milk during the past fiscal year.

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

State	Number of Inspections of Milk Plants	Number of Inspections of Dairies
New Jersey	2,285	8,671
Pennsylvania	33	934
Delaware	17	228
Maryland	8	351
New York	55	1,061
Ohio	2	99
Virginia		5
W. Virginia		6
Vermont	2	52
Indiana	2	159
Wisconsin	9	312
Michigan	1	40
	2,414	11,918

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:

State	Number of Inspections of Milk Plants	Number of Inspections of Dairies
Pennsylvania	44	6,215
Delaware	5	357
New York	50	5,926
Maryland	2	252
	109	12,616

Collection of Samples of Milk, Cream and Milk Products. During the year 6,338 samples of milk and cream collected by agents of this Department were examined chemically. None of these samples contained preservatives and a very small number of samples of milk had been adulterated with water. A small percentage of the samples collected failed to meet the legal standards for total solids or for milk fats.

Ice Cream Factory Inspection. In the inspection of ice cream plants, special attention has been given to the sanitation of factories and equipment and to the source of the raw materials used in the preparation of the ice cream. Under the laws of the State, it is necessary for manufacturers of ice cream to procure the milk, cream or ice cream "mix" intended for use in the manufacture of ice cream from plants holding permits from this Department.

During the year, 872 inspections have been made of places where ice cream, sherbets or ices are manufactured for distribution in New Jersey, and 645 samples have been collected for examination. Of this number, 37 samples were found to differ slightly from the legal standard.

Bakery Inspection. During the year, 2,091 sanitary inspections of bakeries have been made by agents of this Bureau. In the inspection of bakeries, particular attention has been paid to the cleanliness of mixing machines, utensils, receptacles, tables, racks and other equipment coming in contact with food, and to the methods employed by bakers to prevent the contamination of food with filth or bacteria. The installation and use of facilities for the cleansing of the hands of food handlers has been required. Careful inspection has been made of the quality and condition of raw materials with particular emphasis being placed upon eggs and egg products.

In the enforcement of the special regulations governing the preparation and sale of custard filled pastries, agents of the Bureau have examined the utensils, receptacles, and filling devices to see that the equipment is cleaned thoroughly, and have reported that mechanical refrigerators have been provided in many bakeries for the storage or display of those pastries pending sale.

In general, the agents of this Department report that there has been a marked improvement in the sanitation of the bakeries of this State, and also in the methods used in the handling and preparation of bakery products, over conditions prevailing in the past. The Bureau has continued the policy adopted some years ago of confirming verbal instructions for the correction of insanitary conditions or of improper methods as given by the inspectors, by sending letters of instruction. In the relatively few cases where bakers have ignored the advice to operate their bakeries in compli-

ance with the provisions of the laws of this State, it has been necessary to take drastic action.

During the year, 31 informal hearings have been held to show cause why prosecution should not be instituted for the collection of the penalties provided by law, and prosecutions have been instituted in 10 cases.

The Bureau is grateful to the New Jersey Bakers Board of Trade, Inc. for their continued support and cooperation, and also to the Department of Labor for their cooperation in connection with this work.

During the year, the Department employed a person who was skilled in the art of photography, and a moving picture in color of the equipment and methods of handling foods in one of the modern bakeries of New Jersey, was prepared. The purpose of preparing this moving picture was to assist in educating bakers of the State in the importance of using natural, wholesome ingredients, properly sorted before use to remove foreign materials, of maintaining equipment under clean conditions, and in the importance of using such methods as are necessary to prevent contamination of the food in its preparation.

During the coming year, it is hoped to show this moving picture before groups of bakers and before groups of health inspectors.

Eggs. Agents of this Bureau have made many investigations during the year of chick hatcheries, egg-breaking plants, bakeries, cold storage warehouses and of trucks used in transporting eggs for the purpose of preventing the use of decomposed and inedible eggs for food purposes.

The enforcement of the provisions of the law passed in 1939 which prohibited the movement of eggs removed from incubators unless they were broken and denatured upon the premises where the incubators were located, is most important in the work of preventing the use of inedible eggs in food, and 231 inspections were made during the year of chick hatcheries in New Jersey. As a result of these inspections, it has been shown that a diversion of these decomposed eggs from incubators to food purposes has been reduced to a very small volume.

This Bureau has called the attention of the bakers of New Jersey by individual instruction and through their association, the New Jersey Bakers Board of Trade, Inc. to the necessity for careful examination of all eggs in the shell, and also liquid or frozen egg material purchased by them, to prevent the use of questionable egg material in food products.

Apple Cider. A group of persons operating presses for the preparation of apple cider, acting through the New Jersey Department of Agriculture, made a request early in the Summer of 1940 for a survey and inspection of the apple cider presses in New Jersey.

It was learned early in this study that apples as gathered from the orchards were used in the preparation of apple cider, without any sorting to remove unsound material and without any washing of the apples. In some cases it was observed that as high as 30% to 40% of the apples actually chopped and pressed were rotten, and that all of the apples were covered to a greater or less degree with dirt or foreign materials. This contamination is caused by the spraying of the fruit in the orchards, or by contamination with the soil, or by careless handling.

In many of the plants, no washing facilities were provided for the washing and cleansing of filtering cloths, racks, vats, containers and other equipment which comes in contact with the apple cider. It was also learned that in certain cases the water supply was obtained from streams or wells which were grossly polluted and which constituted a potential danger when used in connection with the preparation of food.

The operators of the cider presses were advised and instructed regarding the necessity for the thorough sorting of apples to remove all unsound fruit, and for the thorough washing of the sound apples before the fruit was ground and pressed into cider. These persons were also instructed and advised regarding the necessity for the thorough cleansing of all equipment used in connection with the pressing, filtering and bottling of apple cider by the use of uncontaminated water.

In certain cases, it was also necessary to advise operators of apple cider presses to make structural changes in their plants, to enable them to carry out the recommendations with respect to the sorting and washing of the fruit and the cleansing of the equipment. These verbal recommendations were confirmed by letters of instruction from the office.

Our agents report that in a number of cases, the operators of apple cider presses expressed a desire to comply with these recommendations in order to improve the quality of apple cider. During the coming year, it is the intention of the Bureau to continue this intensive work upon the conditions and methods used in the preparation of apple cider in this State.

Olive Oil. A large number of people in this state, because of long-established practice, use olive oil in the preparation and service of food and also for medicinal purposes. Because of the War which has prevented the importation of normal quantities of olive oil from the countries bordering upon the Mediterranean, a shortage of olive oil in this State has developed during the past year, resulting in very high prices for olive oil.

It has been found that edible oils other than olive oil, costing much less than olive oil at this time, are skillfully colored and flavored to create a close similarity to olive oil. Many of these imitation oils cannot be detected

by the average buyer of the oils. This has resulted in the distribution and sale in this State of large quantities of oils other than olive oil in response to requests for olive oil, and in containers falsely marked "Olive Oil".

Agents of this Bureau report that much of this traffic was carried on by persons peddling the adulterated and misbranded oil without having established places of business and without proper identification upon the automobiles other than the license plates.

Because of the difficulty in locating the persons distributing oil in this illegal manner, it became necessary to place embargoes upon a considerable number of cans of oil found at different places. During the year, embargoes were placed upon 877 gallons represented and sold as olive oil.

Upon analyses, it was proved that all of these embargoed containers of oil did contain oil other than olive oil. The embargoes were lifted after the vendors transferred the oil from the misbranded cans into containers which were properly marked.

During the year, 67 samples were purchased as olive oil and of this number, 41 samples were found to be misbranded. A number of prosecutions were instituted for the collection of penalties for violations of the law.

Canning Factory Inspection. During the year, 120 inspections were made of plants where fruit and vegetables are canned. In this work, special attention is given to the sorting of fruits and vegetables to prevent the entrance of unsound and decomposed material into canned foods. Inspections are also made of these plants to see that satisfactory sanitary conditions are maintained.

Restaurant, Hotel Kitchen and Drug Store Luncheonette Inspections. During the year, 1,968 inspections of the sanitary conditions of kitchens of restaurants, hotels and drug store luncheonettes were made by agents of this Bureau. New Jersey is noted for its shore resorts, and multitudes of people from distant points spend vacations at these places. The fluctuation in the numbers to be fed, from a very few during the Winter months, to thousands during the Summer season, intensifies the need for supervision of these places.

The possibility of the spread of certain diseases through the medium of unclean eating utensils or by contaminated food, justifies the expenditure of much time in the inspection of kitchens of public eating places and of the food served. Special attention was given to the methods under which food is stored or refrigerated, to the removal of garbage, to the condition of the clothing worn by employes, to the condition of floors, sidewalls and ceilings, and to conditions in dressing and toilet rooms of employes.

Penalties. During the year, \$5,250.02 was collected in penalties and costs for violations of the Food and Drug Laws.

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

32 Cold Storage Licenses	@	\$10.00.....	\$	320.00
13 Goat Milk Permits	@	10.00.....		130.00
7 Goat Milk Permits				34.36
25 Ice Cream Licenses	@	100.00.....		2,500.00
7 Ice Cream Licenses	@	50.00.....		350.00
12 Ice Cream Licenses	@	25.00.....		300.00
26 Ice Cream Licenses	@	10.00.....		260.00
579 Ice Cream Licenses	@	5.00.....		2,895.00
634 Milk Plant Permits	@	25.00.....		15,850.00
5 Narcotic Drug Licenses	@	50.00.....		250.00
29 Narcotic Drug Licenses.....	@	5.00.....		145.00
				<hr/>
1,369				\$23,034.36

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

	Above Standard	Below Standard	Misbranded	Total
Milk and cream	6,186	79	73	6,338
Foods	2,223	107	116	2,446
Drugs	446	76	145	667
Miscellaneous	48	7	13	68
	<hr/>	<hr/>	<hr/>	<hr/>
	8,903	269	347	9,519

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

	Inspections
Dairies	11,918
Milk Plants	2,414
Ice Cream Plants	872
Restaurants	1,968
Bakeries	2,091
Flour Mills	21
Canning Factories	120
Cold Storage Warehouses	339
Egg-Breaking Establishments	23
Mayonnaise Plants	1
Drug Stores	20
Slaughter Houses	383
Special Shellfish Dealers	76
Poultry Slaughter Houses	253

Meat Markets	415
Non-Alcoholic Beverage Establishments	417
Wholesale Drug Establishments	9
Meat Packing Establishments	57
Shellfish Shipping Plants	1,632
Shellfish Shucking Plants	208
Water Sheds	41
Candy Factories	29
Hatcheries	231
Apple Cider Presses	145
Pickling Plants	23

23,705

Cold Storage—Title 24:9-12 of the Revised Statutes (The Cold Storage Act) provides that the State Director of Health shall extend the period of storage beyond twelve months for any particular article of food, providing the food is found to be in proper condition for further storage. A report on each particular lot of food on which extensions of time were granted shall be included in the annual report of the Director of Health. During the last fiscal year from July 1, 1940 to June 30, 1941, extensions of time were granted for the storage of food in cold storage, as follows:

Quantity	Article	Extension Granted
72,650 pounds	fresh meat	3 months
8,150 pounds	fresh meat	2 months
26,400 pounds	fresh meat	1 month
19,350 pounds	meat	1 month
627,387 pounds	fish	3 months
1,300 boxes	cheese	2 months
11,361 boxes	cheese	3 months
1,477—30-lb. cans	whole egg	1 month
31—30-lb. cans	whole egg	2 months
38—30-lb. cans	egg whites	1 month
472—20 lb. cans	cream	2 months
300 tierces	lard	2 months
800 tierces	lard	4 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.

SUMMARY OF THE KINDS AND AMOUNTS OF FOODS IN COLD STORAGE WAREHOUSES IN NEW JERSEY ON THE LAST DAY OF EACH MONTH DURING THE YEAR 1940 - 1941

ARTICLE	July 1940	Aug 1940	Sept 1940	Oct 1940	Nov 1940	Dec 1940	Jan 1941	Feb 1941	March 1941	April 1941	May 1941	June 1941
Eggs, Cases	601,760	556,761	469,058	340,963	206,846	182,761	83,003	15,313	95,016	173,420	361,577	467,466
Eggs, broken, lbs.	8,311,127	6,359,595	5,745,021	5,337,741	4,585,847	3,905,567	2,802,887	2,965,027	3,117,073	4,450,843	6,529,686	11,302,447
Cheese, lbs.	8,305,451	6,102,900	5,684,700	5,736,694	7,061,098	6,483,460	4,625,818	4,215,485	5,119,457	3,967,616	3,806,304	6,177,587
Butter, lbs.	8,255,917	8,596,235	6,655,441	5,742,001	3,389,181	1,519,594	1,283,160	1,708,842	445,207	2,718,373	3,923,449	8,225,480
Poultry, lbs.	6,937,185	10,033,604	6,852,469	10,006,321	11,805,182	14,456,082	12,911,802	11,246,534	8,357,513	6,301,240	7,112,415	8,255,815
Fresh meats, lbs.	5,214,699	4,619,700	8,624,107	4,118,758	6,007,634	10,317,938	12,569,465	12,921,150	12,000,715	13,323,864	14,653,698	12,725,234
Fresh fish, lbs.	5,044,078	5,124,621	4,625,517	5,265,192	5,619,439	5,117,249	3,000,334	2,506,553	1,004,639	2,596,100	1,252,408	3,008,184
Milk and milk products, lbs.	389,285	895,300	244,127	199,309	161,932	146,995	80,177	52,454	41,569	119,252	94,920	270,162
Eatable fats and oils, lbs.	1,097,655	1,352,361	1,006,084	882,154	981,625	989,245	1,040,690	1,055,435	847,524	1,166,708	1,292,787	4,375,540
Game, lbs.	230	230	182	1,340	2,104	14,204	4,101	2,382	1,165	42	699	699
Miscellaneous articles, pkgs.	319,999	303,447	435,150	559,574	823,000	622,083	515,998	575,598	463,253	1,083,681	398,370	317,260

Sanitary Shellfish Control. The sanitary control of shellfish is maintained through the operation of three field laboratories and the floating laboratory Boat "Inspector". Sanitary surveys and sampling of shellfish-growing waters are carried on continuously in all of the tidal areas of the State, with a trained personnel of five bacteriologists.

The practice of storage of shellfish on floats or adjacent to the shoreline was subjected to an intensive survey, and new regulations instituted whereby this practice was placed under an annual permit system. A number of areas formerly used for floating and storage were disapproved, and the floats and beds transferred to areas of known purity.

During the last quarter of the fiscal year an intensive joint investigation was conducted in Raritan Bay, to determine the fitness of both the New York and New Jersey areas for the growing of shellfish. This investigation was conducted under the supervision of the U. S. Public Health Service, and was cooperated in by the New York State Conservation Department, the New York State Board of Health, the New York City Board of Health and this Department. The laboratory for New Jersey samples was set up in the shellfish field laboratory at Highlands, and personnel recruited from other field stations in this State. This study is being continued.

Periodic sampling of the waters of Delaware Bay and River between Cape May and Camden have been continued by means of the "Inspector". This and other survey work along the coast and in Raritan Bay required a travel of 2,830 miles by the "Inspector".

Resurvey studies on the comparative index of pollution of various types of shellfish were continued. Proper sanitation in the opening and packing of shucked shellfish was closely studied and recommendations made to the oyster shucking establishments that they install steam sterilizing equipment to insure properly cleansed and sterilized utensils. Examinations of shucking house employes, entailing both medical inspection and examination of feces and urine specimens for typhoid, have been continued as a necessary step in the protection of the consumers of shucked shellfish which may be eaten raw.

During the year, there were examined on the laboratory Boat and in the three field laboratories 2,365 samples of water, 335 samples of shucked oysters, 277 samples of shell oysters, 229 samples of soft clams, 372 samples of hard clams, and 40 miscellaneous samples, making a total number of samples 3,618.

There were also made during the year 1,632 inspections of establishments from which shellfish are shipped in the shell, 208 inspections of shellfish shucking establishments, and 41 miscellaneous inspections, totaling 1,881 inspections.

Report of the Bureau of Bacteriology

For the Year Ending June 30, 1941

J. V. MULCAHY, CHIEF

The past fiscal year, ending June 30, 1941, has been one showing a continued increase in all phases of the work of this Bureau. It will be seen from Table I below, that the demands on the laboratory are taxing our facilities to handle this volume of work in our present quarters. Plans recently submitted to provide more adequate space for the laboratory in a separate building, housing the Department, would give sufficient space to care for the expansion in our work. It is hoped that it will be possible to obtain this new building so that the laboratory may be properly housed to meet the continued demands for laboratory examinations by the physicians of the State. The examinations made during the year are shown below.

TABLE I

TOTAL NUMBER OF SPECIMENS EXAMINED DURING THE FISCAL YEAR
ENDING JUNE 30, 1941

Diphtheria	8,469
Tuberculosis	10,382
Typhoid Fever	3,770
Typhoid bacilli (feces and urine)	6,158
Gonorrhoea	9,833
Miscellaneous specimens	9,833
Syphilis	256,781
Total	305,276

In this table it will be seen that of the total examinations made, 256,781 were blood and spinal fluid specimens examined for evidence of infection with syphilis. To show the yearly increase in this examination alone, the following tabulation has been prepared.

This work is performed in two small rooms that are badly over-crowded and it is increasingly difficult to continue to meet all the requests for this examination. In the table below is shown this increase since the year 1936.

1936	54,267
1937	68,140
1938	97,854
1939	160,663
1940	201,418
1941	256,781

These specimens were sent in by physicians complying with the premarital and prenatal laws, from venereal disease clinics, State institutions and large numbers were received from employees in many defense industries including arsenals, munition plants, chemical plants and industries producing defense materials. Blood specimens were also examined from selectees at the time of their physical examination before induction into the armed forces, from National and Home Guards and from various groups in extra-cantonment areas.

For several years persons who wished to be married in New York City were able to have their blood tests for syphilis made in New Jersey. The New York City Health Department has approved the laboratory of the New Jersey State Department of Health at Trenton for these premarital examinations. Specimens from residents in this State who wish to be married in New York City must be examined in the New Jersey State Department of Health laboratory, as New York City registrars will not accept tests made in any other laboratories in New Jersey. However, the report must be made on the New York City form, a supply of which has been sent to the New Jersey State laboratory. Physicians should mark the slip accompanying the specimen to show that the applicant expects to be married in New York City in order to have report and certificate form acceptable by the New York City officials.

Some residents of New Jersey have been inconvenienced by not having the proper forms when they applied for a marriage license in New York City. This can be avoided by marking the slip accompanying the specimen when submitting it for examination so that the laboratory of this Department will know of the intention to have the marriage ceremony performed in New York City and will make out the report and certificate on the proper form. The same procedure should be followed by persons in New York who wish to be married in New Jersey. The New Jersey State Department of Health has approved the New York City laboratory for premarital tests and prefers to have the certificate submitted on the New Jersey form as the New York City laboratory has been furnished with these New Jersey forms.

The same arrangement has been made with the laboratory of the City of Philadelphia so that residents of Philadelphia who wish to be married in

New Jersey may have the blood test made in the Philadelphia city laboratory and a New Jersey certificate form issued to obtain a marriage license in this State. Arrangements were later made with the Pennsylvania State Department of Health for the examination of blood specimens in the laboratories of the Pennsylvania State Department of Health and the issuance of New Jersey certificate forms for residents of the State of Pennsylvania who wished to be married in this State. Blood tests of New Jersey residents who plan to be married in Pennsylvania are recognized by the Pennsylvania State Department of Health. Pennsylvania was the first state that was approved by the New Jersey State Department of Health for these premarital tests.

The New Jersey State Department of Health early in the operation of the premarital law of this State realized a very distinct inconvenience caused to residents in other states who wished to be married in New Jersey and who often were unable to come to New Jersey to have the blood test made before their contemplated marriage. In such cases it was necessary for a physician in their state to send the blood specimen to the New Jersey State laboratory for examination, sometimes from distant states. Occasionally the specimen would arrive in an unsatisfactory condition for examination. The desirability of reciprocity between states in premarital examinations to detect syphilis was considered by the New Jersey Director of Health in consultation with the Chiefs of the Bureaus of Vital Statistics, Laboratory and Venereal Disease Control. A letter was sent to Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service stating that the Department had approved the laboratories of Pennsylvania and the laboratories of New York City and the City of Philadelphia, and stating that the New Jersey Health Department was now prepared to extend this approval of serodiagnostic laboratories for the purpose of examining premarital blood specimens for evidence of syphilis to all state laboratories in the United States for the examination of blood from their residents or from persons stationed or temporarily residing there who wished to be married in New Jersey. Dr. Parran was asked to advise the New Jersey State Department of Health concerning any suggestions or recommendations that approval be extended for premarital blood testing for syphilis to all state laboratories in the United States. A reply was received from Dr. Parran stating "It is quite probable that some method of reciprocity will be worked out which accredits serologic tests performed in other state laboratories". He further stated that "After the Public Health Service in cooperation with the Serologic Committee has an opportunity to study this subject and draft a tentative plan the matter of reciprocity will be brought to the attention of the members of the Conference of State and Territorial Health Officers".

At the meeting of the Health Officers in Washington, recommendations were approved providing for reciprocity between states in premarital examinations and that such full approval should be extended by the states wherever the procedure is not specifically interdicted by the wording of the state statutes. Acting on these recommendations the Director of Health of the New Jersey State Department authorized the approval of all state laboratories, including the laboratories of the U. S. Army, U. S. Navy, U. S. Marine Corps, and U. S. Public Health Service. The following letter was sent to all State Health officials informing them of this approval on May 13, 1941, by the New Jersey State Department of Health, and the registrars of this State were then notified of this action.

"This will inform you that the laboratory of your Department and all other state department of health laboratories have been approved by me for the purpose of examining blood of persons who wish to be married in New Jersey in compliance with the premarital law of this State.

Enclosed herewith is a small supply of forms upon which the report of the laboratory and the physician's certification may be made. While the form of this State is preferred for marriages in New Jersey, your form will be accepted provided it contains, in addition to the laboratory report, the certification of the physician.

I hope that it may be possible for you to approve the laboratory of this Department for the examination of blood of persons who wish to marry in your state, provided, of course, you have a premarital blood examination law which does not prohibit such approval.

May I hear from you in respect to approval of the New Jersey State Department of Health laboratory, and if such approval is granted, kindly send us some of your State premarital forms."

(Signed) J. LYNN MAHAFFEY, M.D.,
Director of Health.

The replies to this letter were then tabulated and are shown in the following tabulation, which should prove helpful to physicians and residents of this State who expect to be married outside the State of New Jersey.

State	Premarital Law?	Accept Test made in N. J. State Dept. of Health only	Remarks
Alabama	No		
Alaska	No		
Arizona	No		
Arkansas	No		
California	Yes	Yes	N. J. Physician may collect specimen and make physical examination and sign certificate.
Colorado	Yes	Yes	N. J. Physician may collect specimen and make physical examination and sign certificate.
Connecticut	Yes	Yes	Specimen must be submitted and certificate signed by physician registered in Connecticut.
Delaware	No		
District of Columbia	No		
Florida	No		
Georgia	No		
Idaho	No		
Indiana	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Illinois	Yes	Yes	Certificate must be signed by registered physician in Illinois.
Iowa	Yes	Yes	
Kansas	No	Yes	
Kentucky	Yes	Yes	The physical examination must be made by a physician licensed in Kentucky.

DEPARTMENT OF HEALTH

<i>State</i>	<i>Premarital Law?</i>	<i>Accept Test made in N. J. State Dept. of Health only</i>	<i>Remarks</i>
Louisiana	see "remarks"		A certificate from a Louisiana physician must be filed only with respect to the male within 15 days of examination.
Maine	Yes	Yes	Certificate must be signed by a physician registered in Maine or by a physician duly licensed to practice outside the State of Maine who is a graduate of a Class A medical school.
Maryland	No		
Massachusetts	Yes	No	Examination and blood test must be done by physician practicing in Massachusetts. No laboratory outside of Mass. is approved.
Michigan	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Minnesota	No		
Mississippi	No		It is contemplated that the 1942 Legislature will adopt a statute requiring premarital examinations.
Missouri	No		
Montana	No		
Nebraska	No		
Nevada	No		
New Hampshire	Yes	Yes	Specimen must be collected and certificate signed by physician registered in N. H.

BUREAU OF BACTERIOLOGY

<i>State</i>	<i>Premarital Law?</i>	<i>Accept Test made in N. J. State Dept. of Health only</i>	<i>Remarks</i>
New Jersey	Yes		Will accept tests made in laboratories of all state health departments, Army, Navy & Marine Corps Laboratories; also City of New York and Phila.
New Mexico	No		
New York (State)	Yes	No information received	
New York (City)	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
North Carolina	Yes	Yes	Certificate must be signed by a physician licensed in North Carolina.
North Dakota	Yes	No	Law states that the serologic test must be performed in the State Dept. of Health Lab. in Bismarck or Grand Forks, N. D.
Ohio	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Oklahoma	No		
Oregon	Yes	Yes	Medical examination must be made by physician licensed in Oregon.
Pennsylvania	Yes	Yes	Physical examination must be made by physician licensed in Pennsylvania.
Porto Rico	Physical examination only.	Yes	Physical examination must be made within 5 days of marriage.

DEPARTMENT OF HEALTH

BUREAU OF BACTERIOLOGY

State	Premarital Law?	Accept Test made in N. J. State Dept. of Health only	Remarks
Rhode Island	Yes	Yes	Physical examination must be made by a physician licensed in Rhode Island.
South Carolina	No		
South Dakota	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Tennessee	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Texas	No		
Utah	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Vermont	Yes	Yes	Specimen must be collected and physical examination made by a physician licensed in Vermont.
Virginia	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Virgin Islands	No		
Washington	No		
West Virginia	Yes	Yes	Physical examination must be made by a physician licensed in West Virginia.
Wisconsin	Yes	Yes	N. J. Physician may collect specimen and sign certificate.
Wyoming			Male must have a certificate stating he is free from disease.

Each year, since the premarital and prenatal laws went into effect, more specimens are received for examination. Below is shown the number of tests made in this laboratory exclusive of tests made in other State approved laboratories, showing the number of positive reactions obtained. On all blood specimens giving any degree of reaction, supplementary tests are made not only on premarital and prenatal specimens but on all specimens sent to the laboratory for examination. The number of supplementary tests are also shown in this Table.

Number of premarital tests	54,378
Number of Positive premarital tests	637
Number of prenatal tests	30,623
Number of positive prenatal tests	354
Number of Kahn tests	18,180
Number of Kline tests	2,093

Too frequently physicians fail to indicate on the history slip sent in with the specimen that the blood is from an applicant for a marriage license. Unless the slip is so marked, the certificate form is not sent, and later a letter is received stating that a certificate form was not received and asking that it be forwarded with all possible speed as plans have in many instances been made for the wedding and the delay in the receipt of the certificate form had caused the contracting parties much anxiety.

While 301 cases of rabies were reported during the year, it will be seen from the following Table that fewer dogs have been received in this laboratory for examination and fewer found to be rabid since the year 1935. The reason for this difference in reported cases and the number found rabid in the laboratory of this Department is due to the prevalence of rabies in some of the most populous counties of the State where local laboratory facilities are available for the examination of these specimens.

In Hudson County rabies in dogs was a serious condition. Over one hundred cases of rabies were reported by this county during the year. Bergen County reported sixty-seven cases as occurring in that county. Essex County reported forty-three cases of rabies.

TABLE II
YEARLY TOTALS OF ANIMALS EXAMINED FOR RABIES FROM 1932 TO 1941, INCLUSIVE

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
Positive	177	130	86	72	150	82	138	262	116	76
Negative	123	121	93	94	121	138	110	237	140	144
Unsatisfactory	27	21	10	12	12	17	26	15	15	7
Total	327	272	189	178	283	232	265	525	271	227

Table XI in this report shows the municipalities, arranged by counties, from which animals found to be rabid, were received during the year.

Table X shows the character of the 9,833 miscellaneous specimens examined during the year. This Table contains a variety of specimens that are not listed in the other tabulations in this report. Many of the examinations listed in this Table represent special examinations in the investigation of properties of various substances sent in through the Bureau of Food & Drugs.

Much time has been given to the examination of chemical prophylactics for the prevention of venereal diseases; to the examination of the antiseptic value of various mouth washes, and food products to determine bacterial contamination. On several occasions during the year, samples of food have been submitted by health officers of the State to determine the cause of cases of food poisoning in groups made sick with gastro-intestinal symptoms after partaking of some of the suspected food thought responsible for their illness.

Cultures are frequently sent in by hospital laboratories in the State to identify the type of organism isolated from some of the cases in their institutions.

All these special investigations take a lot of time and must be done in any spare time without interfering with our routine examinations that must be reported promptly.

The employment of another bacteriologist who could devote a larger part of his time to these special investigations and other problems of a research nature is needed.

With increased work of over 50,000 more examinations, working on a reduced appropriation, our funds were exhausted early in the year and it was increasingly difficult to continue to supply outfits for the collection of blood specimens for syphilis. Complaints were received from many physicians that they were unable to get the vacuum tubes which they were accustomed to use and failing to understand why the Department was not allotted sufficient funds to furnish them with these tubes instead of the outfits sent them.

The appropriation allotted the laboratory from Social Security funds provided for the continued employment of some of our technical, clerical and other laboratory assistants, and helped considerably in the purchase of much of our laboratory supplies.

During the year it was necessary to inoculate a large number of animals to assist in the examination of suspected infectious material.

The tabulation below shows the character of the material received for examination requiring the inoculation of animals.

GUINEA PIG INOCULATIONS FOR TUBERCLE BACILLI FOR THE YEAR ENDING JUNE 30, 1941

	Positive	Negative	Unsatisfactory
Urine	3	73	5
Sputum	2	30	2
Chest Fluid	14	55	8
Spinal Fluid	5	7	0
Abdominal Fluid	1	3	0
Joint Fluid	0	1	0
Knee Fluid	0	2	0
Ascitic Fluid	0	2	0
Hip Abscess	2	0	0
Blood	0	1	0
Feces	0	1	0
Stomach Washings	0	6	1
Total	27	181	16

GUINEA PIG INOCULATIONS FOR RABIES FOR THE YEAR ENDING JUNE 30, 1941

	Positive	Negative
Dog Brain	0	103
Cat	0	14
Heifer	0	2
Monkey	0	1
Squirrel	0	1
Rabbit	0	1
Rat	0	1
Total	0	123

VIRULENCE TESTS FOR DIPHTHERIA FOR THE YEAR ENDING JUNE 30, 1941

Positive	9
Negative	20

As the number of specimens received for examination increases, a larger number of mailing cases for the collection of these specimens is required. Table XIII shows the number of mailing cases prepared for shipment to various repositories located in drug stores and in the offices of local health departments for the use of local physicians. In many cases these outfits are sent directly to the physicians of the State when they require a large number or when it is not convenient for them to obtain the outfits from the distributing centers.

It is required by the postal regulations that a specified mailing container be used for the transmission of specimens from suspected cases of communicable diseases through the mails. The assembling of these mailing cases with sterile swabs, vials, test tubes and sterile needles and other en-

closures is an important and busy phase of our work. Over 348,000 outfits were prepared. These mailing cases, as sent from the laboratory, are assembled and packed to avoid breakage in the mails. Despite this adequate packing some of these mailing cases, when returned to the laboratory for examination, have been found to have been broken in transit. In some cases this breakage of vials containing blood specimens has occurred in the mail bags and on several occasions has soiled other mail.

When returning these mailing cases the physician should see that they are carefully packed against breakage, as undoubtedly these single cases sometimes receive rough treatment in transit by mail. When received in a broken condition it is necessary for the physician to forward another specimen for examination. When such a specimen is from an applicant for a marriage license this may cause undue delay in marriage plans.

The demand for culture media, all prepared by this Bureau largely for use in other Bureaus of the Department in the examination of water and sewage samples and shellfish work, has been greatly increased. Table XIV shows that 2,891,900 c.e. of culture media of various kinds was prepared, tubed and sterilized during the year.

It will be seen from the Tables that follow, the various examinations made during the year. They are tabulated to show the kind of examinations and the number found to be positive.

TABLE III

SPECIMENS EXAMINED FOR DIPHTHERIA BACILLI, DURING FISCAL YEAR
ENDING JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	19	650	20	689
August	6	442	15	463
September	30	596	18	644
October	11	872	17	900
November	8	671	23	702
December	15	974	29	1,018
January	9	773	38	820
February	3	576	14	593
March	5	655	6	666
April	7	528	13	548
May	6	582	12	600
June	5	801	20	826
Total	124	8,120	225	8,469

During the year nineteen tests were made for the virulence of the diphtheria bacillus.

TABLE IV

SPECIMENS EXAMINED FOR TUBERCLE BACILLI, DURING FISCAL YEAR
ENDING JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	79	752	9	840
August	126	634	2	762
September	79	593	9	681
October	141	636	8	785
November	121	586	5	712
December	90	654	10	754
January	170	952	11	1,133
February	134	844	8	986
March	112	819	4	935
April	110	917	8	1,035
May	113	832	4	949
June	111	690	9	810
Total	1,386	8,909	87	10,382

TABLE V

SPECIMENS EXAMINED FOR TYPHOID FEVER REACTION, DURING FISCAL
YEAR ENDING JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	20	254	9	283
August	30	303	22	355
September	20	428	45	493
October	9	249	19	277
November	4	247	18	269
December	4	316	10	330
January	2	272	10	284
February	7	287	9	303
March	6	267	1	274
April	2	233	6	241
May	2	271	7	280
June	20	352	9	381
Total	126	3,479	165	3,770

TABLE VI

SPECIMENS OF FECES AND URINE EXAMINED FOR TYPHOID BACILLI, DURING
FISCAL YEAR ENDING JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	38	416	18	472
August	45	433	8	486
September	35	599	25	659
October	6	478	27	511
November	4	554	23	581
December	6	583	13	602
January	2	767	10	779
February	5	471	8	484
March	7	369	12	388
April	4	258	4	266
May	6	339	11	356
June	12	551	11	574
Total	170	5,818	170	6,158

TABLE VII

SPECIMENS EXAMINED FOR GONOCOCCI (PUS SMEARS), DURING FISCAL YEAR
ENDING JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	141	703	21	865
August	160	701	19	880
September	154	648	17	819
October	154	687	15	856
November	143	624	14	781
December	107	535	15	657
January	123	662	13	798
February	89	690	13	792
March	119	715	10	844
April	105	668	11	784
May	106	691	16	813
June	156	818	20	994
Total	1,557	8,142	184	9,883

TABLE VIII

MISCELLANEOUS SPECIMENS EXAMINED DURING FISCAL YEAR ENDING
JUNE 30, 1941, BY MONTHS

Month	Positive	Negative	Unsatisfactory	Total
July	109	723	4	836
August	139	901	14	1,054
September	93	911	12	1,016
October	141	628	3	772
November	147	487	2	636
December	184	812	2	998
January	213	592	4	809
February	160	580	7	747
March	195	650	8	853
April	202	476	4	682
May	187	543	8	738
June	139	545	8	692
Total	1,909	7,848	76	9,833

TABLE IX

SPECIMENS OF BLOOD AND SPINAL FLUID EXAMINED FOR SYPHILIS (COMPLEMENT
FIXATION TEST), WITH CHOLESTERINIZED ANTIGEN, DURING FISCAL
YEAR ENDING JUNE 30, 1941, BY MONTHS

MONTH	4+	3+	2+	1+	±	-	Uns.	Total
July	773	164	149	237	52	16,986	532	18,833
August	1,358	193	184	281	55	22,019	717	24,807
September	1,015	167	147	158	35	17,683	504	19,709
October	1,225	199	176	196	60	19,190	578	21,624
November	1,005	181	129	191	50	15,221	453	17,230
December	825	145	174	226	51	13,941	501	15,863
January	1,033	197	221	242	66	20,107	743	22,609
February	922	137	165	196	28	17,810	659	19,847
March	1,038	209	123	163	107	19,241	584	21,540
April	1,019	277	229	208	115	21,243	599	23,800
May	1,153	216	168	190	98	24,187	581	26,532
June	1,048	128	92	147	62	22,254	735	24,466
Total	12,414	2,213	1,962	2,435	779	229,882	7,096	256,781

TABLE X

MISCELLANEOUS SPECIMENS EXAMINED, POSITIVE, NEGATIVE AND UNSATISFACTORY
DURING FISCAL YEAR ENDING JUNE 30, 1941

<i>Specimen for</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatis- factory</i>
Rabies	76	144	7
Amoeba .....	.....	2	.....
Anthrax .....	.....	1	1
Bacterial infection (blood, body fluids, feces, pus, urine, Sputum, etc.)	1,089	155	13
B. tuberculosis (blood, body fluids, feces, pus, urine,	53	266	8
B. typhosus (bile, blood, pus, water, etc.)	1	55	1
Para-typhoid fever	6	1,821	14
B. para-typhosus (bile, feces, urine, water, etc.)	30	1,315	.....
B. dysentery (feces, urine, water, etc.)	27	172	2
Dysentery (blood reaction for) .....	.....	19	1
Gonococcus infection (urine)	3	1	.....
Hemolytic streptococci (throat cultures)	262	1,427	.....
Malarial parasite (blood) .....	.....	26	1
Ophthalmia neonatorum	35	51	1
Ova and parasites	23	492	16
Pneumonia	54	40	2
Rocky Mountain spotted fever (blood reaction for)	12	76	.....
Undulant fever—			
Agglutination test of human blood	91	1,297	3
Urine (culture for type of organism) .....	.....	1	.....
B. abortus —			
Agglutination test of cow's milk .....	.....	2	1
Agglutination test of cow's blood .....	.....	1	.....
<i>Tréponema pallida</i>	2	11	1
Trichinosis	1	1	.....
Tularemia	1	54	.....
Typhus fever (blood reaction for) .....	.....	2	.....
Vincent's angina	110	340	1
Other unusual examinations	34	76	3
Total	1,909	7,848	76
Grand total			9,833

TABLE XI

RABIES SPECIMENS, SPECIES OF ANIMALS, POSITIVE, NEGATIVE AND UNSATISFACTORY
EXAMINED DURING FISCAL YEAR ENDING JUNE 30, 1941

Dogs—Positive, 69; Negative, 120; Unsatisfactory, 6.
Cats—Negative, 14; Unsatisfactory, 1.
Rats—Negative, 1.
Cows—Positive, 4; Negative, 4.
Horses—Positive, 1.
Foxes—Positive, 2; Negative, 1.
Monkeys—Negative, 2.
Squirrels—Negative, 1.
Rabbits—Negative, 1.

TABLE XII

MUNICIPALITIES, ARRANGED BY COUNTIES, FROM WHICH RABID ANIMALS WERE
EXAMINED DURING FISCAL YEAR ENDING JUNE 30, 1941

Bergen County—Ridgewood, 1.
Essex County—Bloomfield, 3; Caldwell, 2; Cedar Grove, 1; Nutley, 2; Orange, 4.
Hunterdon County—Flemington, 1.
Mercer County—Princeton, 5.
Middlesex County—Jamesburg, 2.
Monmouth County—Keyport, 7.
Morris County—Denville, 2; Dover, 10; Lincoln Park, 1; Long Valley, 2; Mendham, 1;
Montville, 1; Mountain Lakes, 3; Pine Brook, 1; Pompton Plains, 1.
Passaic County—Haledon, 1; Little Falls, 1; Mountainview, 3; Totowa, 1.
Somerset County—Somerville, 6.
Sussex County—Newton, 2; Stanhope, 1; Sussex, 1.
Union County—Linden, 1; Summit, 3.
Warren County—Hackettstown, 6.

TABLE XIII

MAILING CASES FOR THE COLLECTION AND TRANSMISSION OF SPECIMENS SUPPLIED
TO PHYSICIANS AND REPOSITORIES THROUGHOUT THE STATE DURING
FISCAL YEAR ENDING JUNE 30, 1941

Diphtheria—Regular mailing cases	14,507
Extra Swabs	1,200
	15,707
Tuberculosis mailing cases	13,864
Typhoid fever mailing cases	3,294
Malaria mailing cases	36
Gonorrhoea mailing cases	17,683
Feces and urine mailing cases	9,233
Syphilis mailing cases	288,175
Ophthalmia neonatorum mailing cases	159
Treponema pallidum mailing cases	238
Pneumonia mailing cases	42
	348,431
Total	348,431

TABLE XIV

CULTURE MEDIA PREPARED DURING FISCAL YEAR ENDING JUNE 30, 1941

Endo agar	140,000	e. c.
Brilliant green agar	30,000	e. c.
Plain agar	245,000	e. c.
Double strength broth	810,000	e. c.
Single strength broth	1,210,000	e. c.
Brilliant green bile	395,000	e. c.
Blood serum	2,800	e. c.
Dilution water	59,100	e. c.
	2,891,900	e. c.
Total	2,891,900	e. c.

Report of Bureau of Chemistry

For the Year Ending June 30, 1941

JOHN E. BACON, CHIEF

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

Assistance is given to local boards of health and water works laboratories desiring to install chemical control or supplement existing laboratory facilities. Instructions in chemical procedures are given the personnel of such laboratories when requested. The Bureau makes investigations of those establishments producing chemicals which give rise to obnoxious, objectionable fumes and furnishes expert advice to local boards of health to assist in abatement of such nuisances.

There were 25,140 samples of foods, drugs, water, sewage and miscellaneous preparations examined during the past year, an increase of 2,872 samples, 12.8 percent.

During the greater part of the year the personnel does not have time to work upon research problems and any work of this character is generally undertaken during the months of December, January, February and March when the call for laboratory service is at a minimum. Following is a brief comment upon some of the scientific problems that have been studied:

Photoelectric Colorimeter—The use of this instrument to scientifically measure colors and replace visual methods using liquid and glass standards is constantly increasing. During the past year procedures have been developed whereby this

apparatus may be used in the determination of sugar in blood and sulphates in waters and trade wastes.

Biochemical Oxygen Demand—As this test measures the amount of oxygen required to stabilize polluting material, the results are used more and more by sanitarians as a criteria of the strength of trade wastes and the degree of purification taking place thru various units of a sewage disposal system.

Lea and Nichols using standard bicarbonate dilution water supplemented with small amounts of ammonium sulphate, dihydrogen potassium phosphate and traces of calcium and magnesium salts found the five day biochemical oxygen demand results of a 0.1 percent glucose solution increased from 60 to 500 ppm.

In this laboratory phosphate dilution water is used. Some investigations have been undertaken comparing this dilution water with a supplemented phosphate dilution water. Additional studies must be made before drawing final conclusions, but it is apparent the wide discrepancies noted in biochemical oxygen demand values between straight and supplemented bicarbonated dilution waters will not be obtained when using straight and supplemented phosphate dilution waters.

Spirits of Nitre—The results of a study of the inconsistent and erroneously high results obtained by the United States Pharmacopoeia XI assay of this drug with suggested modifications of the analytical procedure have been submitted to the United States Pharmacopoeia Revision Committee.

The deterioration of spirits of nitre has been investigated and the findings would seem to justify their publication in one of the scientific journals. Briefly, the greatest deterioration is caused by mechanical loss of ethyl nitrite.

Alkalinity—The determination of alkalinity furnishes data essential to the successful operation of certain water purification plants, sewage plants of chemical precipitation type and in the treatment of many industrial wastes prior to the discharging into streams. The datum point to which alkalinity is referred by "Standard Methods of Water Analysis" is pH 4.0. Our analytical procedure, therefore, has been changed in that the dye indicator has been eliminated.

The glass and calomel electrodes are equipped with long leads permitting them to be immersed in the solution under examination and the end point is reached when, during the titration, the pH meter indicates a reading of 4.0. The advantages of the changed procedure are: eliminates personal errors incurred in judging unsatisfactory color changes; conserves sample in that both determinations of pH and alkalinity are made on one portion of 100 ml; saves times in that frequent additions of small amounts of acid and vigorous shaking are eliminated; permits determination of alkalinity on samples containing dyes or other coloring matter which would interfere with or mask the color change of the indicator.

TABLE SHOWING NUMBER AND CHARACTER OF SAMPLES EXAMINED IN FOOD AND DRUG LABORATORY DURING THE FISCAL YEAR ENDING JUNE 30, 1941

	Above Standard	Below Standard	Total
Milk	6,024	64	6,088
Bacteriological milk	43	.....	43
Chocolate milk	65	11	76
Butter	68	16	84
Cream	199	7	206
Ice cream	548	30	578
Sherbet	7	4	11
Cheese	14	.....	14
Hamburg	801	21	822
Pork sausage	324	3	327
Other meat products	10	40	50
Soft drinks	110	43	153
Olive oil	33	45	78
Fruits for arsenic spray	161	1	162
Tomato products	31	3	34
Cranberry sauce	5	1	6
Tea seed oil	16	.....	16
Miscellaneous samples	48	18	66
Total food	8,507	307	8,814
Ammoniated mercuric ointment	30	24	54
Barium sulfate	60	.....	60
Boric acid	37	17	54
Camphorated oil	34	19	53
Citrate of magnesia	52	15	67
Headache tablets	26	30	56
Lead and opium wash	3	33	36
Prophylactics	78	7	85
Paregoric	14	5	19
Permanent wave solution	38	3	41
Suntan solution	9	15	24
Spirits of nitre	309	50	359
Tincture of iodine	55	2	57
Miscellaneous samples	17	11	28
Urinalysis	45	.....	45
Blood count and blood sugar	26	.....	26
Total drugs	833	231	1,064
Total food and drugs	9,340	538	9,878

DEPARTMENT OF HEALTH

SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY FROM JULY 1, 1940 TO JUNE 30, 1941

1940	Public water supplies	Miscellaneous samples	Tea samples	Camp samples	State and County Institution supplies	Dairy samples	Bottled water samples	School supplies	Bathing water samples	Watershed samples	Stream samples	Sewage samples	Trade waste samples	Sand samples	Surf samples	Muds	Experimental samples	Total samples
July	333	278	8	85	19	4	6	11	7	26	133	550	23	2	2			1,792
August	332	319	7	56	31	1	1	16	38	33	157	213	6	1	1		50	1,200
September	884	103	12	10	10	1	2	52	1	6	169	45	7	3				1,304
October	403	88	7	2	22	4	1	88			89	592	31					1,327
November	191	33	3		6			144			8	407	1					873
December	295	51	5	1	31	1	9	125			4	79	7	3				611
1941																		
January	337	38	3	2	2	4	15	222	1	132	5	91	17				238	1,536
February	222	31	2		15	2	21	1163	2		14	349	17	2				1,846
March	174	28	3		36	2	4	272	2	94	4	37	162					960
April	184	50	3		15	3	3	133		152	17	182	8	2				906
May	679	63	11	4	22	5	3	62	1	142	38	136	21	6				1,043
June	267	66	11	30	14	1	10	46	4		369	75	2	8				958
	4,311	1,168	75	190	252	26	74	2,734	54	585	1,007	2,810	302	26	312	32	1,298	15,262

Report of the Bureau of Maternal and Child Health
For the Calendar Year 1940

JULIUS LEVY, M. D., CONSULTANT

MATERNAL MORTALITY

The maternal mortality rate for 1940 was 2.9, the same rate as for 1939. The rate for white mothers was 2.6 while that for the colored mothers was 5.8.

It is interesting to note that less than half or 49% of the puerperal deaths occur at full term. However, in separating the white and colored, we find that 51% of the white mothers, who die from puerperal causes, die at term while 36% of the colored mothers die at term.

DEATHS FROM PUERPERAL CAUSES BY PERIOD GESTATION

	1 to 3 Months		3 to 6 Months		6 to less than term		At Term	
White	23	15%	9	6%	38	26%	75	51%
Colored	5	18%	10	36%	2	7%	10	36%
All	28	16%	19	11%	40	23%	85	49%

There were only forty-five obstetrical consultations paid by the Department for low-wage group families.

The nurse delivery service has increased, however, there having been 1,482 deliveries at which registered nurses assisted doctors in the home. This is only an increase of 14 above the previous year, but 1939 had showed an increase of 128.

While the service in the rural counties has increased, the service in the urban counties, where hospitals are readily available, has decreased. As in previous years the staff nurses of thirteen different visiting nurse associations were called to assist at 240 deliveries. There were 166 private duty nurses who assisted in 1,242 home deliveries.

The qualifications and fitness of the private duty nurses have been carefully investigated and provision made for special supervision and instruction.

The field physicians investigated the 172 deaths from puerperal causes.

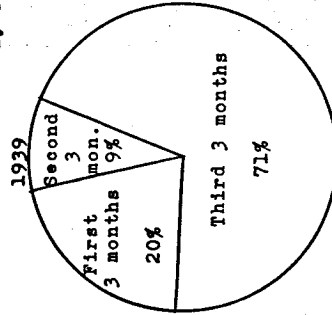
The Advisory Obstetrician to the Bureau continued to analyze the results of all the investigations to enable him to discuss certain practices and results with physicians and to bring to the attention of the medical profession many suggestions for the improvement of obstetrical care. The continued cooperation of the Maternal Welfare Committee of the State Medical Society with this Department is very gratifying.

A special investigation was made of the nineteen births that were reported as having no attendant with the following results:

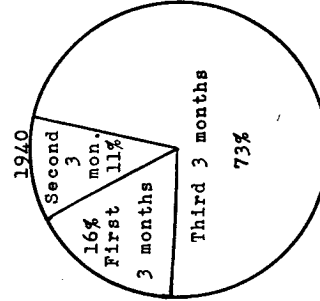
Religious reasons	3
Illegitimates, mothers tried to keep births secret	3
Emergencies	5
Self delivered for economic reasons	4
Mothers poor, unprogressive in section of State where attendant not easily available, refused to go to clinic	4

MATERNAL MORTALITY

By Period of Gestation

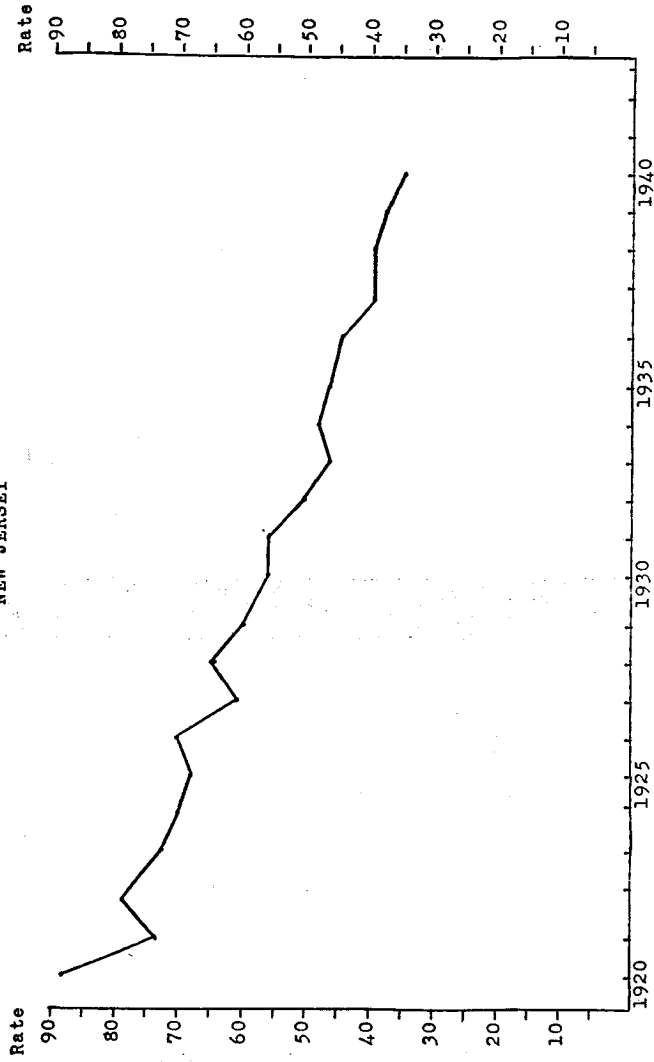


Number of Deaths 166
 Number of Births 56,859
 Deaths per 1,000 Births 2.9



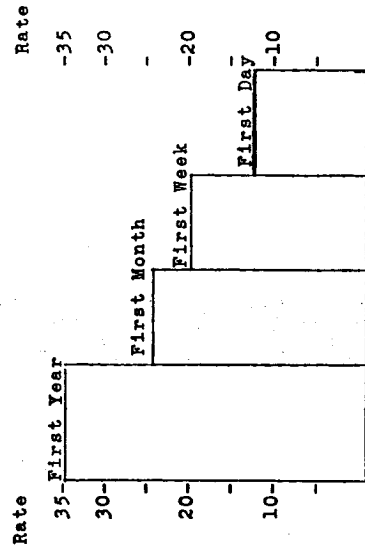
Number of Deaths 172
 Number of Births 59,328
 Deaths per 1,000 Births 2.9

**INFANT MORTALITY RATES
NEW JERSEY**



New Jersey State Department of Health - Bureau of Maternal and Child Health

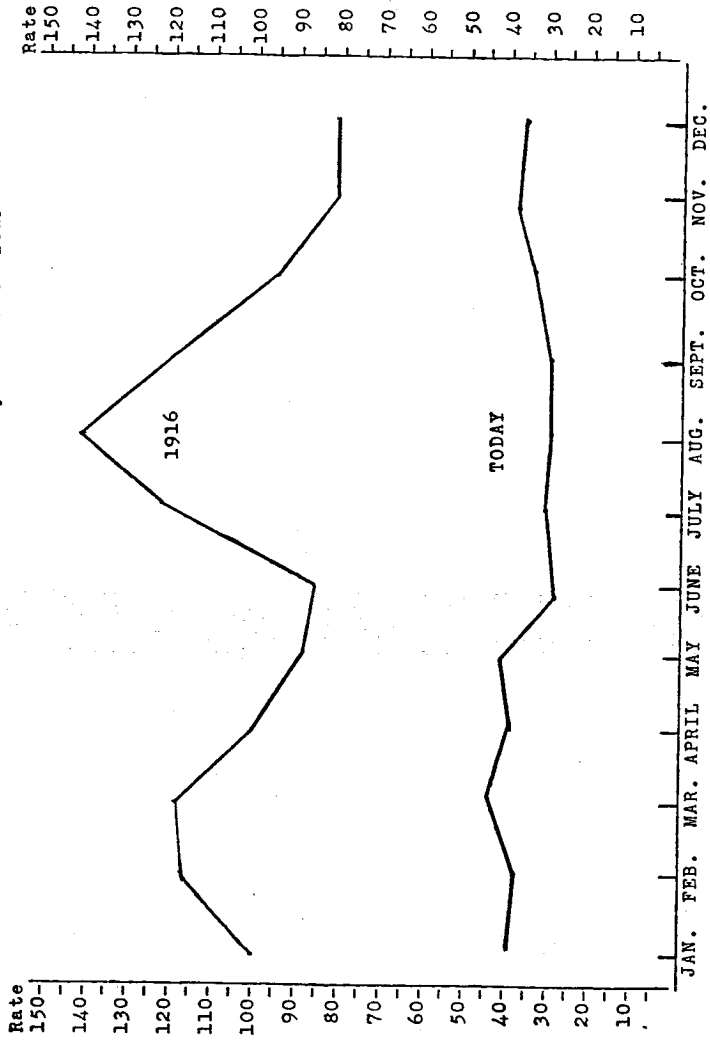
**OVER ONE-THIRD OF ALL DEATHS UNDER ONE YEAR
OCCUR ON THE FIRST DAY**



Rates are per 1,000 Births

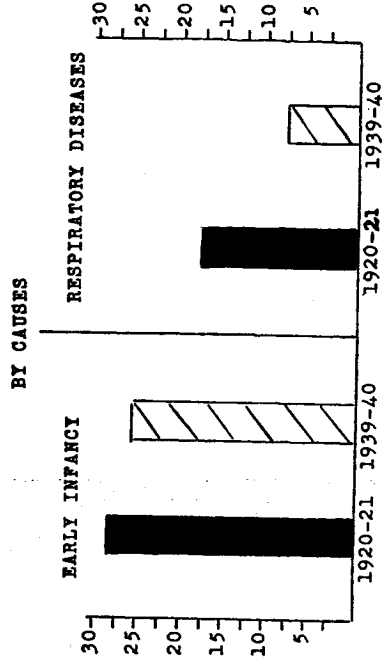
New Jersey State Department of Health-Bureau Maternal and Child Health

Comparative Infant Death Rates By Months of Year



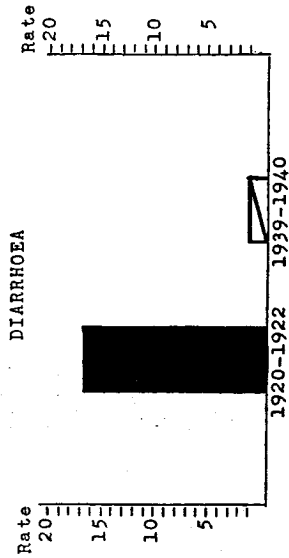
New Jersey State Department of Health - Bureau of Maternal and Child Health

DEATHS UNDER ONE YEAR
Per 1,000 Live Births



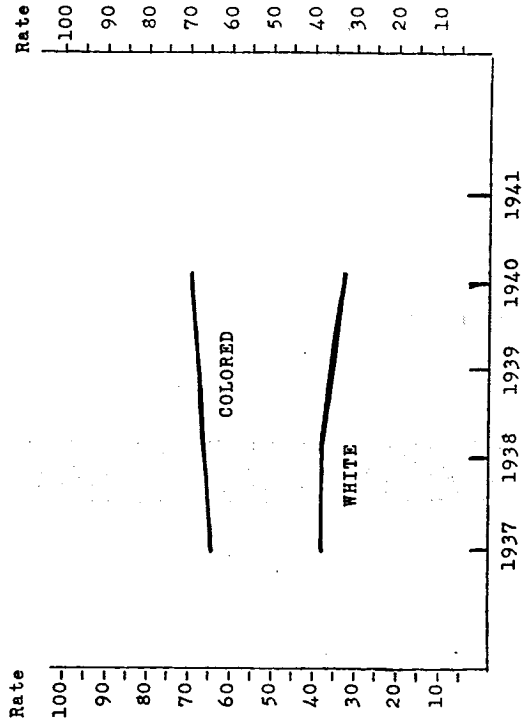
New Jersey State Department of Health - Bureau of Maternal and Child Health

DEATHS UNDER ONE YEAR
Per 1,000 Live Births



New Jersey State Department Health-Bureau Maternal and Child Health

INFANT MORTALITY BY COLOR
NEW JERSEY



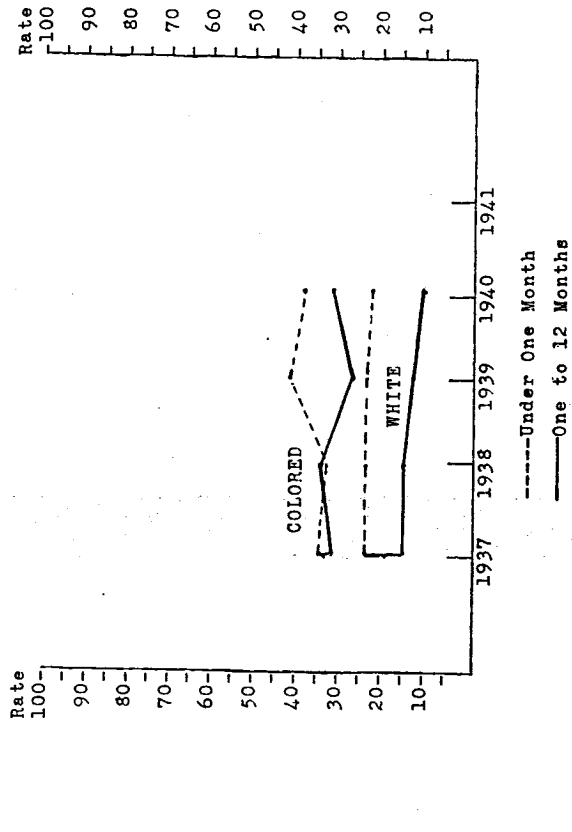
Rates per 1,000 Live Births

New Jersey State Department of Health-Bureau of Maternal and Child Health

INFANT MORTALITY BY COLOR

NEW JERSEY

Under One Month and One to 12 Months



New Jersey State Department of Health-Bureau Maternal and Child Health

INFANT MORTALITY

New Jersey's infant mortality rate for 1940 is 35. While information for other States is not complete, the reports would indicate that only three States will have a lower rate. The lowest rate is 33, which is reported by the States of Minnesota and Oregon. Washington has a rate of 34. The number of colored births in these States is very small. In New Jersey the infant mortality rate for white is 32, for colored 68.

Only ten years ago the infant mortality rate for New Jersey was 56. If this rate had been maintained for the past ten years, more than 5,000 additional babies would have died.

If we break down the first year of mortality, we find that most of the reduction in the rate has occurred after the first month of life. Over a period of years there was a slight reduction between one week and one month but there has been no reduction under one day.

More than one-third of all the deaths during the first year occur on the first day of life. In fact, more than half of the deaths under one year occur during the first week of life. The chief cause of these infant deaths is prematurity.

BABY KEEP-WELL STATIONS

There were 190 Baby Keep-Well Stations under the supervision of the Bureau throughout the State. Physicians served in 111 of these Stations. 87 doctors serving in 70 of the Stations were paid from Social Security funds. In 41 stations doctors served who were paid from local funds or without compensation.

These Stations make available to mothers in rural areas instruction in care and feeding, and gives the general practitioner an opportunity to become more familiar with well babies and the education of mothers in their care.

In 1940, twenty-nine consultant pediatricians, members of the New Jersey chapter of the Academy of Pediatrics, made 245 visits to the 87 doctors in 70 baby keep-well stations. A few communities invited the consultant pediatricians to advise the locally paid doctors.

There were four regional conferences where the consultant pediatricians read papers on special subjects assigned to them and the baby station doctors took part in the discussion.

EXTENSION OF ACTIVITIES

During the year, there were 211 nurses under the supervision of the Bureau working in nineteen of the twenty-one counties of the State cover-

ing most of the rural and suburban areas from Sussex County to Cape May County. This was an increase of nine maternal and child health nurses since 1939. There were 32 communities that assumed some portion of the nurses' salary. This made available money for new demonstrations in communities needing and requesting the services of a nurse.

Nurses were placed in the following communities for the demonstration period during 1940:

Atlantic County— Pleasantville Brigantine	Gloucester County— Franklin Twp. Franklinville	Middlesex County— Carteret
Bergen County— Palisades Park	Hunterdon County— Delaware Twp. Kingswood Twp. Franklin Twp.	Somerset County— Branchburg Twp.
Camden County— Lawnside Gloucester Winslow Twp. Haddon Twp. Stratford Somerdale	Frenchtown Milford Readington Stockton East Amwell Twp. West Amwell Twp. Raritan Twp.	Sussex County— Sussex Andover
	Mercer County— Hamilton Twp.	Union County— Elizabeth (colored nurse)
		Warren County— Mansfield Twp.

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

Atlantic County— Mullica Twp.	Cumberland County— Millville	Salem County— Alloway Twp. Quinton Twp. Elsinboro Twp.
Bergen County— Moonachie Lyndhurst Fairview E. Rutherford Emerson Old Tappan Woodcliffe Lake	Hunterdon County— Bloomsbury Tewkesbury Twp. Clinton Twp. Union Twp.	Lower Alloway Creel Upper Pittsgrove Twp. Elmer
Burlington County— Riverside Twp.	Middlesex County— South River Madison Twp. South Amboy	Somerset County— Hillsborough Twp. Montgomery Twp. Branchburg Twp.
Camden County— Lindenwold	Warren County— Sayreville Monroe Twp.	Warren County— Knowlton Twp.

EDUCATIONAL ACTIVITIES

Five classes covering a period of six weeks each were conducted to prepare the new field nurses to carry out the program of the Bureau. A total of thirty nurses attended these classes.

Many of the Bureau's nurses attended Institutes for various courses such as Dental Health, Orthopedic Nursing and Understanding and Care of Children.

STATISTICAL SUMMARY OF NURSES' WORK

Of the 211 field nurses supervised by the Bureau, 147 were paid entirely by the communities in which they work, 43 were paid partly by the State and partly by the communities and 21 were paid entirely from State or Social Security funds.

These nurses have under their supervision 11,804 expectant mothers, 31,121 babies, 56,579 children between the ages of one and six, and 140,829 school children.

Visits made in the homes by the nurses	452,042
To expectant mothers	49,613
To babies	170,026
To children ages one to six	153,571
To school children	78,832
Visits to Baby Keep-well Stations	80,124
By babies	58,193
By preschool children	21,931
Prenatal Advice (expectant mothers) cases supervised.....	11,804
Total pregnancies terminated	8,168
Attendants at birth—	
In hospital	4,767
Doctor at home	2,177
Midwife	322
Not specified	46
Infant care, babies supervised	31,121
New cases	16,864
Preschool care, children one to six supervised	56,579
New cases	18,039
Illnesses and defects detected (not including school child)	12,673
Corrected	7,938
Cases referred to proper authorities for care or correction	10,391
Prenatal	3,214
Contagious disease (suspected)	2,608
Tuberculosis (suspected)	613
Venereal disease (suspected)	204
Relief cases	2,495
Unsanitary conditions	662
Behavior problems	595
Child Hygiene Leagues (number classes conducted)	917

Dental clinics (number sessions with nurse assisting)	2,077	
Children under five years of age vaccinated	5,665	
Children under five years of age immunized	9,291	
Free immunizations	5,177	
Paid immunizations	4,114	
School Children		
Inspections (annual, general or assisting doctor)	962,973	
Defects detected	159,137	
Corrections	82,125	
Pupils excluded by principal	20,993	
Children immunized	7,820	
Cultures taken	465	

MENTAL HYGIENE

Through courses of study on the Understanding, Care and Guidance of Children for the field nurses and The Family for the supervisory staff, group discussions and distribution of literature, we have continued to stimulate the interest and increase the knowledge of nurses associated with the Bureau in Parent-child Relationships.

There were thirty-five group discussion meetings with an attendance of five to ten at each meeting. All nurses had an opportunity to discuss any mental hygiene aspects of their work in relation to the families in their district.

AUDIOMETER

Boards of Education continued to use the audiometer for testing the hearing of school children. During the year the audiometer belonging to the Bureau was used to test the hearing of 19,863 children. There were 10,364 re-tests made and 2,203 defects found among these children. Children with defects were referred to their family physicians and adjustments made in the class room.

MIDWIFERY

During the year 1940, there were 274 licensed, registered midwives in New Jersey. Of this number, 245 were supervised by the State Department of Health and 29 were supervised locally. This represents a decrease of 26 in the number of midwives registered since 1939.

Of the 245 licensed midwives, 79 delivered no cases during the year, 157 delivered less than 12 cases and 37 delivered more than 12 cases.

The number of births delivered by midwives has rapidly decreased since 1918 when the midwives delivered 42 percent of the births of the State. Today midwives deliver only 2 percent of the births in New Jersey.

There are four cities where midwives deliver over 12 percent of the births. They are Carteret, South River, Perth Amboy and Elizabeth.

The eight county associations for midwives held 41 meetings with a total attendance of 481. Lectures were given by local physicians at the meetings and the supervisors gave demonstrations and reviewed the lectures given by the doctors with the midwives.

The Seventeenth Annual Conference for the supervised midwives in New Jersey was held in Newark on May 29. Dr. Julius Levy of the Bureau spoke on the *Care of the Premature and Immature Baby* and Dr. Martin Castellano of the Essex County Sanatorium gave an illustrated lecture on *Pregnancy and Tuberculosis*.

The midwives under State supervision referred to doctors or clinics 666 prenatals for health supervision. This was nearly half of the total number delivered by them.

There were 88 prenatals reported by the midwives as abnormal. All but three of these were either sent to a hospital or had a physician called.

There were 172 deaths from puerperal causes. Midwives were in attendance on six of these cases.

There were special investigations made of 31 cases to find whether or not the midwives were in any way responsible for the deaths.

Two midwives were prosecuted during the year; one was fined for failing to register and attending a case and the other was fined by the State Medical Board for practicing medicine without a license.

Two cases were investigated where unlicensed women were in attendance. Both cases were claimed to be emergencies and the women were warned not to deliver any more cases.

MATERNITY HOMES

There were 19 maternity homes licensed by the New Jersey State Department of Health during 1940. There were two new homes and 17 renewals. One home was licensed for 15 patients, all the others for six or less.

There were 475 cases delivered in these homes. Regular monthly inspections were made of all maternity homes.

ILLEGITIMATE BIRTHS

There were 1,531 births out-of-wedlock, an increase of 118 since 1939. There were sixteen sets of twins among these births. Over 54% of the mothers were under twenty-one years of age.

EXHIBITS

Charts depicting interesting facts in regard to infant mortality and maternal mortality and electrified pictures showing the work of the nurses were displayed at various public meetings such as Monmouth County Medical Society, Asbury Park; Visiting Nurse Associations, Trenton Interstate Fair, and Club meetings.

Report of the Bureau of Vital Statistics

Statistics for the Calendar Year 1940

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 largely responsible for activities which caused a decline in the total death rate from 18.4 in 1879 to 10.9 in 1940 per 1,000 population and the rate from respiratory tuberculosis from 251.0 to 40.5 per 100,000 population.

The Bureau has the custody of more than eight million records of births, marriages and deaths which date back to 1848. The records for the period 1848 to 1878 were collected by the Secretary of State and turned over to the Bureau when established. The Bureau supervised the registration of births, marriages and deaths throughout the State and supplied blanks incident to registration with the State.

Monthly and annual statistical tables were compiled and published and a large amount of special statistical data were compiled for the use of public and private institutions and agencies interested in disease and accident prevention. Electrical tabulating 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.

Certified copies of the birth, marriage and death records were issued individuals and interested agencies which part of the work has been particularly important during the present defense program. During 1940 forty-nine thousand seven hundred and thirty-one searches of the records were made and copies of certificates found were issued for which \$31,614.52 were received in fees. Eleven thousand three hundred of the searches and certified copies were for purposes exempted from charge by law.

During the year, the Bureau received, examined, classified, indexed and permanently filed approximately 175,000 certificates of birth, marriage and

death, part of which records were for unreported events which occurred in previous years. The annual growth of the records requires approximately 200 cubic feet of storage space.

More than 82,000 premarital certificate forms were received and examined, a duty placed upon the Bureau at the adoption of the law requiring an examination for syphilis prior to the issuance of a marriage license.

Several hundred original birth records were sealed and new certificates containing the names obtained by adoption made, as prescribed by Chapter 215, Laws of 1940.

The Bureau continued the use of W.P.A. workers in indexing 1878-1900 marriage records both by husbands' and wives' names. The existing arrangement, alphabetically and chronologically by counties and cities by years was found unsatisfactory when the use of the records increased.

A check of marriage registration was completed. Seventy-eight hundred licenses or approximately one fifth the number issued during the year were checked for marriage reports. The completeness of reporting was found to be better than ninety-nine per cent.

GENERAL SUMMARY

	1920	1930	1939	1940
Births registered, tabulated and indexed	76,431	68,282	56,859	59,328
Marriages registered, tabulated and indexed	31,327	28,499	31,895	41,059
Deaths registered, tabulated and indexed	40,820	43,190	43,837	45,206
Stillbirths registered, tabulated and indexed	3,221	2,647	1,628	1,543
Total records registered, tabulated and permanently filed	151,799	142,618	134,219	147,136
Searches made and certified copies issued for which fees were received	4,664	10,523	15,326	38,431
Certified copies issued and searches made in pension and other cases for which no fees were received	4,232	6,938	10,804	11,300
Fees returned to State Treasurer for searches and certified copies	\$4,051	\$9,601	\$14,022	\$31,614.52

CHARTS AND TABLES—1940

- Table 1. Births, marriages, deaths and rates, 1879-1940.
- 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: 1940.
- Chart 1. Births and deaths per 1,000 population, 1880-1939.
- Table 3. Deaths of infants under five years of age and percentage of total deaths, 1904-1940.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1940.
- Table 5. Deaths under one month, stillbirths and maternal deaths per 1,000 live births, by counties and certain cities.
- Table 7. Births, birth rates, deaths under one year and infant mortality rates by counties and cities.
- Chart 2. Deaths from typhoid fever per 100,000 population, 1880-1939.
- Table 8. Comparison between typhoid fever death rates in New Jersey and the United States Registration Area, 1931-1940.
- Table 10. Typhoid fever rates by counties, 1931-1940.
- Chart 3. Deaths from measles per 100,000 population, 1880-1939.
- Chart 4. Deaths from scarlet fever per 100,000 population, 1880-1939.
- Chart 5. Deaths from whooping cough per 100,000 population, 1880-1939.
- Chart 6. Deaths from diphtheria per 100,000 population, 1880-1939.
- Chart 7. Deaths from respiratory tuberculosis per 100,000 population, 1880-1939.
- 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, 1880-1939.
- 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):

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

Population—The estimated midyear population of the State for 1940 was 4,163,100. This was obtained by the arithmetical method, using the census figures for 1930 and 1940. The estimated population of the counties and cities of the State which had 50,000 or more inhabitants in 1940 appears at the foot of the mortality tables for the places.

Births—The number of births for 1940 was 59,328 which was equivalent to a rate of 14.3 per 1,000 population. Total births reported showed an increase of 2,469 over the number for 1939. The 1939 total, 56,859, was 257 greater than the number for the previous year. Births, which decreased rapidly from 74,193 in 1925 to 54,841 in 1934, have shown a gradual increase from 1936 on.

The number of illegitimate births reported for 1940 was 1,561, of which 679 were babies born to colored mothers. The figures for 1939 were 1,413 and 625 respectively.

Marriages—The number of marriages reported for 1940 was 41,059, an increase of 9,164 over the number for the previous year. The marriage rate was 9.9 compared with 7.7 for 1939 and 7.5 for 1938. The 1938 figures reflected the effect of the premarital examination law which became effective on July 1 of that year.

Deaths—The number of resident deaths for 1940 was 45,206. The death rate for the year, 10.9, was 2.8% higher than the rate for 1939. The rate for the decade ranged from 10.5 in 1932 to 11.0 in 1937.

Stillbirths—The number of stillbirths reported for 1940 was 1,543. The number for the previous year was 1,609. The 1940 rate was 26.0 per 1,000 live births. The rate for the colored population was 34.7.

TABLE 1—POPULATION, BIRTHS, MARRIAGES AND DEATHS REPORTED WITH RATES PER 1,000 POPULATION

YEAR	Estimated Population	BIRTHS		MARRIAGES		DEATHS	
		Number of births reported	Birth rate per 1,000 population	Number of marriages	Marriage rate per 1,000 population	Number of deaths	Death rate per 1,000 population
1879	1,110,489	23,116	20.8	7,096	6.3	20,440	18.4
1880	1,133,731	23,680	20.8	7,963	7.0	18,967	16.7
1881	1,165,112	23,484	20.1	8,109	6.9	20,812	17.8
1882	1,196,493	23,108	19.3	8,837	7.3	25,959	21.6
1883	1,227,874	24,430	19.8	9,166	7.4	25,373	20.6
1884	1,259,256	25,263	20.0	9,968	7.9	27,716	22.2
1885	1,290,638	24,077	18.6	8,989	6.9	23,807	18.4
1886	1,322,020	25,497	19.2	12,351	9.3	22,734	17.1
1887	1,353,402	27,340	20.2	15,416	11.3	24,331	17.9
1888	1,384,784	28,074	20.2	16,025	11.5	27,173	19.6
1889	1,416,166	29,099	20.5	15,726	11.1	26,543	18.7
1890	1,448,549	30,103	20.7	15,564	10.7	25,530	19.6
1891	1,492,462	28,382	19.3	15,305	10.2	25,840	19.3
1892	1,536,336	30,627	19.9	16,082	10.4	27,135	21.2
1893	1,580,209	32,285	20.4	17,178	10.8	30,596	23.3
1894	1,624,083	33,662	20.7	16,245	10.0	30,004	18.4
1895	1,667,957	31,742	19.0	15,873	9.5	30,634	18.3
1896	1,711,831	31,307	18.2	15,370	10.7	30,767	17.9
1897	1,755,705	31,595	17.9	15,171	10.3	29,822	16.9
1898	1,799,578	32,515	18.0	13,213	7.3	27,337	15.1
1899	1,843,452	29,419	15.9	13,336	7.2	30,999	16.8
1900	1,889,154	32,270	17.0	14,611	7.7	31,474	16.6
1901	1,935,361	34,312	17.7	16,539	8.4	31,739	16.2
1902	2,021,539	35,116	17.3	18,150	8.9	31,319	15.4
1903	2,087,716	37,242	17.8	19,512	9.3	31,820	15.2
1904	2,153,893	38,751	17.9	18,919	8.7	35,298	16.3
1905	2,220,070	39,630	17.8	22,572	9.2	33,865	15.2
1906	2,286,247	42,677	18.6	21,589	9.4	35,870	15.6
1907	2,352,424	44,651	18.9	23,649	10.0	37,408	15.9
1908	2,418,601	47,405	19.6	26,155	10.8	35,597	14.7
1909	2,484,778	47,508	19.1	29,724	11.9	36,359	14.6
1910	2,550,955	48,942	19.1	29,912	11.7	39,494	15.4
1911	2,614,177	58,133	22.2	25,014	9.5	38,612	14.7
1912	2,677,909	60,073	22.4	26,821	10.0	37,772	14.1
1913	2,741,642	61,432	22.4	27,697	10.1	39,425	14.3
1914	2,805,374	65,403	23.3	28,523	10.1	39,967	14.2
1915	2,869,106	66,476	23.1	27,694	9.6	39,435	13.7
1916	2,932,838	70,211	23.9	31,169	10.6	43,376	14.7
1917	2,996,569	75,309	25.1	30,060	10.0	43,532	14.5
1918	3,060,301	74,749	24.3	28,989	9.4	44,379	14.5
1919	3,124,034	70,935	22.7	29,231	9.3	60,862	19.8
1920	3,199,092	76,431	23.8	31,327	9.7	40,820	12.7
1921	3,285,475	78,172	23.7	27,815	8.4	37,362	11.3
1922	3,371,859	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,458,243	74,611	21.5	28,733	8.3	41,294	11.9
1924	3,544,627	76,530	21.5	27,601	7.7	40,531	11.4
1925	3,631,011	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,717,395	72,386	19.4	28,424	7.6	44,396	11.9
1927	3,803,779	72,739	19.1	28,316	7.4	41,562	10.9
1928	3,890,163	70,076	18.0	29,120	7.4	44,535	11.4
1929	3,976,546	69,297	17.1	30,257	7.6	45,746	11.5
1930	4,044,300	68,282	16.9	28,499	7.0	43,190	10.7
1931	4,056,300	64,078	15.8	26,468	6.5	44,135	10.9
1932	4,068,100	61,215	15.0	26,340	6.5	42,326	10.4
1933	4,080,000	56,072	13.7	24,453	6.0	43,880	10.6
1934	4,091,800	54,841	13.4	23,991	7.1	43,547	10.6
1935	4,103,700	55,059	13.4	29,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	29,771	8.0	44,659	10.9
1937	4,127,500	55,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,069	9.9	45,206	10.9

TABLE 1A—BIRTHS, MARRIAGES AND DEATHS, 1940

(Births and deaths corrected for residence)

Month	Births	Marriages	Deaths
January	4,868	1,903	4,490
February	4,349	1,766	4,183
March	4,804	1,801	4,233
April	4,843	2,754	3,866
May	4,951	2,256	3,929
June	4,957	5,802	3,472
July	5,499	2,865	3,739
August	5,371	4,805	3,320
September	5,217	6,081	3,214
October	4,982	4,894	3,393
November	4,554	3,687	3,636
December	4,733	2,445	3,731
Total	59,328	41,059	45,206

TABLE 1B.—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF

AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS, 1940

(Births and deaths corrected as to residence).

NAME OF PLACE	ATLANTIC COUNTY			
	Births	Marriages	Deaths	Deaths under one year
Absecon City	31	20	25	1
Atlantic City	808	563	949	26
Brigantine City	5	1	35	1
Buena Vista Township	54	53	35	4
Corbin City	2	1	3	3
Egg Harbor City	50	55	51	2
Egg Harbor Township	35	6	41	4
Estell Manor City	3	3	5	1
Folsom Borough	3	3	6	1
Galloway Township	42	8	32	3
Hamilton Township	53	30	43	3
Hammonton Town	131	68	66	2
Linwood City	22	19	19	1
Longport Borough	3	2	3	3
Margate City	40	9	39	8
Mallica Township	22	6	19	1
Northfield City	31	6	20	1
Pleasantville Borough	157	87	117	3
Port Republic City	2	1	8	8
Somers Point City	27	8	36	2
Ventnor City	74	6	105	4
Weymouth Township	10	1	11	1
Total	1602	1015	1632	55

BERGEN COUNTY: 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allendale Borough	31	15	23	
Alpine Borough	10	7	1	
Benix Borough	1	1	5	
Bergenfield Borough	153	92	93	2
Bogota Borough	74	65	75	5
Carlstadt Borough	69	34	53	1
Cliffside Park Borough	245	108	156	6
Closter Borough	49	23	6	2
Cresskill Borough	29	14	22	1
Demarest Borough	20	8	9	
Dumont Borough	123	47	54	2
East Paterson Borough	87	32	33	1
East Rutherford Borough	85	113	73	3
Edgewater Borough	58	93	42	
Emerson Borough	12	8	1	
Englewood City	300	211	217	8
Englewood Cliffs Borough	1	7	1	
Fair Lawn Borough	154	55	78	6
Fairview Borough	102	152	67	
Port Lee Borough	125	193	91	
Franklin Lakes Borough	14	5	9	
Garfield City	414	273	185	19
Glen Rock Borough	68	31	54	1
Hackensack City	361	349	301	21
Harrington Park Borough	14	7	47	
Hawarock Heights Borough	39	71	14	1
Haworth Borough	12	13	10	
Hillsdale Borough	52	22	29	
Hohokus Borough	28	24	25	1
Hohokus Township	58	29	4	
Leonia Borough	62	38	47	
Little Ferry Borough	62	38	34	1
Lodi Borough	174	126	94	2
Lyndhurst Township	236	153	140	5
Maywood Borough	46	29	45	2
Midland Park Borough	74	48	36	2
Montvale Borough	17	7	17	
Moonsachie Borough	17	16	11	1
New Milford Borough	28	28	22	3
North Arlington Borough	159	71	62	2
Northvale Borough	17	18	7	1
Norwood Borough	22	34	14	
Oakland Borough	13	8	11	
Old Tappan Borough	10		5	
Oradell Borough	34	19	23	
Palisades Interstate Park				
Palisades Park Borough	111	65	63	
Paramus Borough	61	20	40	1
Park Ridge Borough	34	36	38	2
Ramsey Borough	49	43	41	1
Ridgefield Borough	61	49	41	3
Ridgefield Park Borough	162	104	1	
Ridgewood Village	159	146	161	3
River Edge Borough	69	27	38	1
Riverdale Township	13	3	10	
Rochelle Park Township	75	31	23	
Rockleigh Borough			2	
Rutherford Borough	180	122	100	5
Saddle River Borough	12	10	10	
Saddle River Township	14	26	23	4
South Hackensack Township	18	3	13	
Teaneck Township	346	147	196	8
Tenafly Borough	110	44	70	3
Upper Saddle River Borough	5		6	
Waldwick Borough	45	9	14	2
Wallington Borough	146	30	65	7
Washington Township	4			
Westwood Borough	67	60	54	3
Woodcliff Lake Borough	8	8	8	
Wood Ridge Borough	76	49	49	3
Wyckoff Township	42	28	25	1
Total	5687	3788	3710	160

BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township	9		12	1
Beverly City	42	39	28	1
Bordentown City	78	42	63	4
Bordentown Township	17	2	11	
Burlington City	171	118	144	9
Burlington Township	19	6	25	1
Chester Township	82	56	42	4
Chesterfield Township	3	4	17	
Cinnaminson Township	20	15	20	1
Delanco Township	44	13	32	1
Delran Township	25	7	8	
Eastampton Township	4	3	20	1
Edgewater Park Township	8	13	14	
Evesham Township	33	7	21	1
Fieldsboro Borough	7	2	8	
Florence Township	114	66	69	3
Hainesport Township	12	5	19	
Lumberton Township	20	8	11	
Mansfield Township	17	25	16	
Medford Township	41	1	29	4
Medford Lakes Borough	17			
Moorestown Township	117	69	76	1
Mount Holly Township	106	55	117	5
Mount Laurel Township	29	2	23	1
New Hanover Township	12	9	13	1
North Hanover Township	8	3	8	
Palmyra Borough	77	31	58	1
Pemberton Borough	28	15	21	3
Pemberton Township	32	11	27	2
Riverside Township	118	60	60	3
Riverton Borough	32	25	35	1
Shamong Township	11		11	
Southampton Township	39	9	32	2
Springfield Township	24	7	18	2
Tabernacle Township	8	4	8	
Washington Township	7	3	6	
Westampton Township	12	3	5	
Willingboro Township	3	1	2	
Woodland Township	9		10	
Wrightstown Borough	6	1	4	
Total	1453	756	1140	57

CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough	112	36	106	5
Barrington Borough	26	13	19	1
Bellmawr Borough	10	3	14	
Berlin Borough	34	33	29	
Birch Township	8		24	2
Brooklaw Borough	27	8	8	
Camden City	1914	1111	1328	66
Chesilhurst Borough	9		9	1
Clementon Borough	14	1	32	1
Collingswood Borough	165	114	162	2
Delaware Township	49	10	37	3
Gibbsboro Borough	9	2	12	
Gloucester City	240	136	133	13
Gloucester Township	92	31	62	3
Haddonfield Borough	130	94	126	4
Haddon Heights Borough	74	67	87	4
Haddon Township	66	39	57	2
HINella Borough	1		3	
Laurel Springs Borough	29	6	16	1
Lawnside Borough	31	9	30	1
Lindenwold Borough	40	23	34	1
Magnolia Borough	21	17	24	1
Merchantville Borough	154	53	81	1
Mount Ephraim Borough	45	21	20	
Oaklyn Borough	90	25	42	2
Pennsauken Township	177	93	155	4

CAMDEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Pine Hill Borough	24	4	21	1
Pine Valley Borough	.....	.....	.....	.....
Runcemede Borough	40	39	13	1
Somerdale Borough	21	7	5	.....
Stratford Borough	8	16	13	.....
Tavistock Borough	.....	.....	.....	.....
Voorhees Township	11	3	5	.....
Waterford Township	50	17	32	3
Winslow Township	54	23	45	3
Woodlynne Borough	45	5	30	1
Total	3878	2091	2872	123

CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough	4	.....	3	.....
Cape May City	35	39	54	4
Cape May Point Borough	.....	.....	.....	.....
Dennis Township	23	7	25	1
Lower Township	17	16	23	.....
Middle Township	64	17	54	2
North Cape May Borough	.....	.....	.....	.....
North Wildwood City	15	9	35	.....
Ocean City	54	62	66	2
Sea Isle City	8	7	12	.....
South Cape May Borough	.....	.....	.....	.....
Stone Harbor Borough	3	3	9	.....
Upper Township	17	4	27	.....
West Cape May Borough	8	4	17	.....
West Wildwood City	2	.....	5	.....
Wildwood City	54	69	79	1
Wildwood Crest Borough	7	1	13	.....
Woodbine Borough	15	7	13	.....
Total	326	246	430	10

CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City	236	154	267	20
Commercial Township	35	13	45	2
Deerfield Township	56	13	20	4
Downe Township	17	8	21	.....
Fairfield Township	44	17	28	1
Greenwich Township	13	10	14	1
Hopewell Township	24	5	24	2
Landis Township	208	112	171	7
Lawrence Township	25	8	19	1
Maurice River Township	30	8	21	2
Millville City	224	108	208	21
Shiloh Borough	.....	.....	.....	.....
Stow Creek Township	9	1	5	1
Upper Deerfield Township	34	12	21	1
Vineland Borough	127	60	97	7
Total	1141	534	967	70

ESSEX COUNTY : 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Belleville Town	418	231	245	10
Bloomfield Town	594	317	406	18
Caldwell Borough	66	53	73	3
Caldwell Township	14	14	8	1
Cedar Grove Township	50	11	29	2
East Orange City	916	547	792	28
Essex Falls Borough	13	16	12	.....
Glen Ridge Borough	71	52	64	.....
Irrington Town	717	607	530	20
Livingston Township	107	17	49	4
Maplewood Township	216	133	208	7
Millburn Township	130	85	82	.....
Montclair Town	453	372	487	21
Newark City	6444	5541	6094	239
North Caldwell Borough	18	2	13	1
Nutley Town	305	218	209	11
Orange City	536	460	398	21
Roseland Borough	22	10	19	.....
South Orange Village	128	165	132	4
Verona Borough	124	73	67	1
West Caldwell Borough	55	6	29	.....
West Orange Town	321	192	232	13
Total	11718	9121	9200	406

GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough	44	11	39	3
Deptford Township	95	20	45	4
East Greenwich Township	22	2	17	2
Elk Township	25	2	19	2
Franklin Township	52	29	52	2
Glassboro Borough	84	41	73	4
Greenwich Township	35	15	26	1
Harrison Township	34	16	32	5
Logan Township	35	7	19	2
Mantua Township	57	24	46	5
Monroe Township	63	48	61	6
National Park Borough	52	16	22	.....
Newfield Borough	19	11	15	1
Paulsboro Borough	145	47	77	8
Pitman Borough	80	33	84	4
South Harrison Township	13	2	6	1
Swedesboro Borough	34	34	41	4
Washington Township	14	7	13	.....
Wenonah Borough	16	14	13	2
West Deptford Township	56	37	37	7
Westville Borough	19	46	41	3
Woodbury City	133	90	101	8
Woodbury Heights Borough	39	3	11	.....
Woolwich Township	13	2	8	.....
Total	1187	577	908	68

HUDSON COUNTY : 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bayonne City	1064	818	723	34
East Newark Borough	30	23	20	.....
Guttenberg Town	69	67	4	.....
Harrison Town	236	202	139	11
Hoboken City	655	917	651	17
Jersey City	4514	3581	3343	160
Keany Town	553	508	365	15
North Bergen Township	519	240	323	12
Secaucus Borough	81	68	83	1
Union City	712	704	603	23
Weehawken Township	123	133	174	4
West New York Town	481	620	353	15
Total	9043	7677	6864	298

HUNTERDON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Twp.	16	3	9	1
Bethlehem Twp.	13	1	7	1
Bloomsbury Boro.	16	5	14	1
Califon Boro.	13	7	9	1
Clinton Town	16	12	20	1
Clinton Twp.	21	12	16	1
Delaware Twp.	12	19	14	1
East Amwell Twp.	16	4	22	2
Flemington Boro.	39	53	54	3
Franklin Twp.	13	14	20	1
Frenchtown Boro.	20	23	29	1
Glen Gardner Boro.	7	5	15	1
Hampton Boro.	11	12	15	1
High Bridge Boro.	27	13	20	1
Holland Twp.	10	1	10	1
Kingwood Twp.	11	4	18	2
Lambertville City	75	34	62	1
Labanon Boro.	12	5	16	1
Lebanon Twp.	10	4	13	1
Milford Boro.	24	8	14	1
Raritan Twp.	31	5	27	2
Readington Twp.	36	37	37	1
Stockton Boro.	1	1	10	1
Tewksbury Twp.	14	1	15	1
Union Twp.	19	4	10	1
West Amwell Twp.	9	5	6	1
Total	504	283	508	16

MERCER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Twp.	8	2	8	1
Ewing Twp.	145	43	113	7
Hamilton Twp.	437	226	299	15
Hightstown Boro.	61	43	44	3
Hopewell Boro.	31	22	31	2
Hopewell Twp.	50	11	47	4
Lawrence Twp.	115	50	74	4
Pennington Boro.	19	8	17	1
Princeton Boro.	98	99	82	3
Princeton Twp.	63	4	24	2
Trenton City	1685	1278	1462	65
Washington Twp.	16	5	13	1
West Windsor Twp.	35	15	10	1
Total	2767	1804	2228	105

MIDDLESEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Carteret Boro.	173	154	90	8
Cranbury Twp.	31	15	17	1
Dunellen Boro.	104	79	66	5
East Brunswick Twp.	33	9	30	1
Helmetta Boro.	11	18	6	1
Highland Park Boro.	100	72	71	4
Jamansburg Boro.	30	37	1	1
Madison Twp.	70	15	40	4
Metuchen Boro.	125	63	72	7
Middlesex Boro.	49	15	42	3
Milbtown Boro.	55	46	35	3
Monroe Twp.	23	10	10	1
New Brunswick City	512	449	425	22
North Brunswick Twp.	69	36	27	1
Perth Amboy City	602	581	415	16
Fiscataway Twp.	100	32	61	4
Plainsboro Twp.	14	3	5	1
Raritan Twp.	151	70	86	4
Sayreville Boro.	126	90	68	4
South Amboy City	137	100	118	6
South Brunswick Twp.	46	5	43	3
South Plainfield Boro.	77	50	46	4
South River Boro.	176	138	58	4
Spotswood Boro.	21	10	13	1
Woodbridge Twp.	395	209	255	19
Total	3230	2298	2129	122

MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Boro.	10	15	17	1
Allentown Boro.	166	217	250	11
Asbury Park City	10	10	10	1
Atlantic Twp.	36	21	38	1
Atlantic Highlands Boro.	15	14	20	1
Avon Boro.	66	46	67	2
Belmar Boro.	47	46	50	2
Bradley Beach Boro.	18	2	11	1
Brielle Boro.	12	10	18	1
Deal Boro.	28	29	24	1
Eatontown Boro.	14	8	15	1
Englishtown Boro.	34	5	25	1
Fair Haven Boro.	8	17	17	1
Farmingsdale Boro.	126	77	96	6
Freehold Boro.	53	1	44	1
Freehold Twp.	28	29	31	4
Highlands Boro.	15	5	16	1
Holmdel Twp.	35	27	53	4
Interlaken Boro.	7	3	3	1
Jersey Homesteads Boro.	15	2	8	2
Keansburg Boro.	71	46	68	8
Keyport Boro.	88	91	69	1
Little Silver Boro.	22	7	20	1
Long Branch City	250	158	209	6
Manalapan Twp.	21	8	16	1
Manasquan Boro.	22	66	50	1
Marlboro Twp.	32	13	41	1
Matawan Boro.	64	27	46	2
Matawan Twp.	29	9	18	1
Middletown Twp.	115	67	152	4
Millstone Twp.	24	5	12	1
Monmouth Beach Boro.	11	2	11	1
Neptune Twp.	169	50	173	11
Neptune City Boro.	41	9	21	1
Ocean Twp.	48	14	54	1
Oceanport Boro.	34	6	17	2
Raritan Twp.	17	3	16	2
Red Bank Boro.	151	132	165	7
Rumson Boro.	39	25	42	1
Sea Bright Boro.	8	9	14	1
Sea Girt Boro.	13	11	9	1
Shrewsbury Boro.	23	22	8	1
Shrewsbury Twp.	3	7	8	1
South Belmar Boro.	15	6	6	1
Spring Lake Boro.	9	23	23	1
Spring Lake Heights Boro.	16	10	18	2
Union Beach Boro.	40	9	24	1
Upper Freehold Twp.	17	2	21	1
Wall Twp.	58	15	45	1
West Long Branch Boro.	39	17	20	8
Total	2243	1441	2219	94

MORRIS COUNTY - 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Boonton Town	87	63	50	1
Boonton Twp.	16	5	8	1
Butler Boro.	39	52	30	1
Chatham Boro.	55	36	59	5
Chatham Twp.	19	6	12	1
Chester Boro.	17	5	10	1
Chester Twp.	12	1	5	1
Denville Twp.	58	24	32	1
Dover Twp.	142	132	124	15
East Hanover Twp.	16	16	18	1
Florham Park Boro.	19	6	23	1
Hanover Twp.	63	32	21	2
Harding Twp.	20	10	15	1
Jefferson Twp.	21	4	18	1
Kinnelon Boro.	9	2	1	1
Lincoln Park Boro.	39	8	18	1
Madison Boro.	132	84	73	5
Mendham Boro.	24	23	17	1
Mendham Twp.	11	3	9	1
Mine Hill Twp.	21	8	22	2
Montville Twp.	51	16	31	1
Morris Plains Boro.	36	57	30	1
Morristown Town	231	143	185	7
Morris Twp.	73	15	71	5
Mountain Lakes Boro.	19	12	15	1
Mount Arlington Boro.	9	5	5	1
Mount Olive Twp.	16	10	23	1
Netcong Boro.	34	32	24	1
Parsippany-Troy Hills Twp.	71	24	51	5
Passaic Twp.	39	23	31	1
Pequanock Twp.	46	17	22	2
Randolph Twp.	31	18	31	1
Rivendale Boro.	19	10	13	1
Rockaway Boro.	50	48	50	1
Rockaway Twp.	59	14	40	1
Roxbury Twp.	84	27	66	7
Washington Twp.	19	6	30	1
Wharton Boro.	48	48	44	4
Total	1795	1043	1331	68

OCEAN COUNTY - 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat City Boro.	4	4	4	1
Bay Head Boro.	7	9	4	1
Beach Haven Boro.	14	14	13	1
Beachwood Boro.	12	2	5	1
Berkeley Twp.	8	6	13	1
Brick Twp.	27	27	24	1
Dover Twp.	62	63	63	1
Eagleswood Twp.	9	9	10	1
Harvey Cedars Boro.	2	2	1	1
Island Beach Boro.	2	3	1	1
Island Heights Boro.	2	3	2	1
Jackson Twp.	23	14	27	2
Lacey Twp.	10	2	12	1
Lakehurst Boro.	5	5	8	1
Lakewood Twp.	92	85	124	4
Lavallette Boro.	2	2	6	1
Little Egg Harbor Twp.	4	3	6	1
Long Beach Twp.	4	2	7	1
Manchester Twp.	19	7	12	2
Mantoloking Boro.	3	3	4	1
Ocean Twp.	7	5	7	1
Ocean Gate Boro.	2	1	6	1
Fine Beach Boro.	3	5	8	1
Plumsted Twp.	22	17	23	2
Point Pleasant Boro.	39	9	38	2
Point Pleasant Beach Boro.	7	30	13	1
Seaside Heights Boro.	9	4	8	1

OCEAN COUNTY - Continued - 1940

Seaside Park Boro.	11	10	12	1
Ship Bottom-Beach Arlington Boro.	4	9	9	1
South Toms River Boro.	9	5	5	1
Stafford Twp.	13	5	18	1
Surf City Boro.	3	3	2	1
Tuckerton Boro.	22	8	25	3
Union Twp.	15	17	17	1
Total	473	350	532	20

PASSAIC COUNTY - 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomington Boro.	44	23	80	1
Clifton City	665	281	336	22
Haledon Boro.	63	60	51	2
Hawthorne Boro.	150	50	111	3
Little Falls Boro.	100	55	56	2
North Haledon Boro.	30	13	22	1
Passaic City	805	1046	568	32
Paterson City	1837	1532	1635	87
Pompton Lakes Boro.	54	53	24	1
Prospect Park Boro.	80	55	47	2
Ringwood Boro.	22	4	4	1
Totowa Boro.	53	29	43	1
Wanaque Boro.	53	40	27	1
Wayne Twp.	99	48	69	3
West Milford Twp.	44	25	30	1
West Paterson Boro.	39	14	24	1
Total	4183	3435	3131	161

SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Twp.	36	8	29	1
Elmer Boro.	31	13	19	1
Elsinboro Twp.	12	8	8	1
Lower Alloways Creek Twp.	21	4	12	1
Lower Penns Neck Twp.	113	19	44	5
Mannington Twp.	27	5	28	1
Oldmans Twp.	31	12	13	1
Penns Grove Twp.	173	74	73	8
Pilesgrove Twp.	29	1	17	1
Pittsgrove Twp.	21	5	29	1
Quinton Twp.	27	8	18	1
Salem City	156	72	122	4
Upper Penns Neck Twp.	52	17	26	1
Upper Pittsgrove Twp.	38	8	21	1
Woodstown Boro.	47	16	29	1
Total	803	262	498	35

DEPARTMENT OF HEALTH

SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Twp.	15	7	16	.....
Bernards Twp.	39	23	32	1
Bernardsville Boro.	34	34	32	1
Bound Brook Boro.	156	125	83	9
Branchburg Boro.	16	16	19	.....
Bridgewater Twp.	89	16	50	1
Far Hills Boro.	10	11	4	1
Franklin Twp.	106	20	62	1
Green Brook Twp.	13	1	11	1
Hillsborough Twp.	38	9	25	1
Manville Boro.	110	92	27	2
Millstone Boro.	.....	6	2	.....
Montgomery Twp.	34	4	20	1
North Plainfield Boro.	144	79	123	3
Peapack-Gladstone Boro.	23	20	18	.....
Raritan Town	73	60	32	.....
Rocky Hill Boro.	14	6	5	.....
Somerville Boro.	128	83	117	6
South Bound Brook Boro.	40	9	12	2
Warren Twp.	31	10	11	.....
Watchung Boro.	19	17	19	1
Total	1192	648	720	30

SUSSEX COUNTY 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Boro.	7	7	9	2
Andover Twp.	11	.....	6	.....
Branchville Boro.	12	14	8	2
Byram Twp.	7	3	8	.....
Frankford Twp.	19	2	13	.....
Franklin Boro.	78	32	34	5
Fredon Twp.	9	3	10	1
Green Twp.	10	4	7	1
Hamburg Boro.	17	19	12	.....
Hampton Twp.	7	2	16	3
Hardyston Twp.	19	2	6	.....
Hopatcong Boro.	4	4	12	1
Lafayette Twp.	22	14	7	1
Montague Twp.	5	3	5	.....
Newton Town	87	72	68	2
Ogdensburg Boro.	19	2	2	.....
Sandyston Twp.	5	8	5	.....
Sparta Twp.	39	21	29	2
Stanhope Boro.	17	15	15	.....
Stillwater Twp.	3	10	14	1
Sussex Boro.	35	36	29	1
Vernon Twp.	24	7	15	.....
Walpack Twp.	4	1	2	.....
Wantage Twp.	37	11	31	3
Total	508	291	382	25

BUREAU OF VITAL STATISTICS

UNION COUNTY 1940

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Twp.	32	4	17	2
Cranford Twp.	192	83	114	6
Elizabeth City	1593	1258	1193	58
Fanwood Boro.	42	7	19	.....
Garwood Boro.	59	35	19	.....
Hillside Twp.	253	122	157	5
Kenilworth Boro.	49	9	21	.....
Linden City	431	179	192	16
Mountainside Boro.	16	15	6	.....
New Providence Boro.	38	17	10	.....
New Providence Twp.	27	5	16	.....
Plainfield City	601	372	416	3
Rahway City	250	187	188	5
Roselle Boro.	212	145	119	3
Roselle Park Boro.	97	68	104	4
Scotch Plains Twp.	89	84	44	1
Springfield Twp.	53	29	44	2
Summit City	238	132	135	3
Union Twp.	391	165	190	12
Westfield Town	257	142	162	4
Total	4920	2998	3166	148

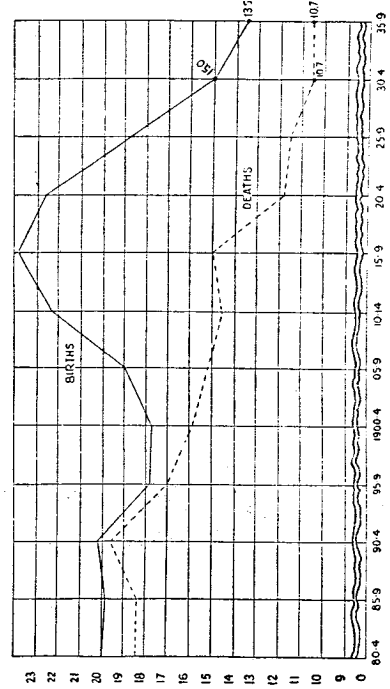
WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Twp.	9	.....	5	.....
Alpha Boro.	41	30	12	2
Belvidere Town	38	27	37	1
Blairstown Twp.	14	16	25	1
Franklin Twp.	22	9	17	2
Frelinghuysen Twp.	9	2	9	1
Greenwich Twp.	16	19	12	.....
Hackettstown Town	37	23	50	1
Hardwick Twp.	6	1	2	.....
Harmony Twp.	27	5	10	.....
Hope Twp.	9	9	10	.....
Independence Twp.	22	9	12	.....
Knowlton Twp.	23	7	22	1
Liberty Twp.	3	.....	6	.....
Lopatcong Twp.	12	4	9	.....
Mansfield Twp.	16	3	18	1
Oxford Twp.	18	20	25	1
Pahaquarry Twp.	.....	.....	.....	.....
Phillipsburg Town	271	164	223	11
Pohatcong Twp.	32	10	29	.....
Washington Boro.	65	31	68	.....
Washington Twp.	12	9	22	.....
White Twp.	3	3	16	.....
Total	720	401	639	23
State Total	59,328	41,059	45,206	2,094

TABLE 2--DEATHS BY AGE PERIODS AND PERCENTAGES OF EACH OF TOTAL DEATHS, 1940

	AGE PERIODS													90 and over	Unknown		
	Total	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59			60 to 69	70 to 79	80 to 89
Deaths	45,206	2,094	163	82	97	70	2,506	261	784	1,408	2,292	4,536	7,498	10,221	9,096	5,065	732
Percentage of total	100.0	4.6	0.4	0.2	0.2	0.2	5.6	0.6	1.7	3.1	4.9	10.0	16.6	22.6	22.1	11.2	1.6

NEW JERSEY
BIRTHS AND DEATHS
AVERAGE ANNUAL DEATH RATES
1,000 POPULATION



Infant Mortality—The infant mortality rate for 1940 was 35.3 per 1,000 babies born alive. The rate was the lowest infant mortality rate ever attained in New Jersey.

Reference to Table 4 will show the great decrease in the infant death rate in New Jersey since extensive baby welfare work was undertaken.

Colored Races—The infant mortality rate for the colored races was 67.9. The colored races have shown high mortality rates since vital statistics were first collected and analyzed.

Maternal Mortality—The rate of 2.9 for 1940 was identical with the rate for 1939. The rate was the lowest since such rates were first computed in 1906. The average rate for the five year period 1935-1939 was 3.6 per 1,000 live births. The colored maternal mortality rate for 1940 was 5.9.

TABLE 3—NUMBER OF DEATHS AT ALL AGES, UNDER ONE YEAR OF AGE AND UNDER FIVE YEARS OF AGE, AND THEIR PERCENTAGES OF TOTAL DEATHS

CALENDAR YEAR	DEATHS IN NEW JERSEY				
	All Ages	Under one year		Under five years	
		Number	Percentage of Total	Number	Percentage of Total
1904	35,298	7,472	21.2	10,927	31.0
1905	33,864	6,951	20.5	9,864	29.1
1906	35,670	7,773	21.8	11,246	31.5
1907	37,408	7,732	20.7	10,867	29.0
1908	35,597	7,823	22.0	10,869	30.5
1909	36,359	7,658	21.1	11,137	30.6
1910	39,494	8,352	21.1	11,648	29.5
1911	38,612	7,642	19.8	10,740	27.8
1912	37,772	7,457	19.7	10,309	27.3
1913	39,425	7,542	19.1	10,686	27.1
1914	39,967	7,431	18.6	10,278	25.7
1915	39,435	7,077	17.9	9,828	24.9
1916	43,376	7,348	16.9	11,188	25.8
1917	43,532	7,582	17.4	10,267	23.6
1918	60,852	8,372	13.8	13,709	22.5
1919	39,979	6,111	15.3	8,661	21.7
1920	40,820	6,672	16.3	9,569	23.4
1921	37,362	5,773	15.4	8,047	21.5
1922	40,086	5,864	14.6	8,371	20.9
1923	41,294	5,368	13.0	7,727	18.7
1924	40,531	5,359	13.2	7,344	18.1
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

DEPARTMENT OF HEALTH

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

Year	Births Reported	Deaths Under 1 Year of Age	Rates per 1,000 Live Births	Deaths Under 1 Month of Age	Rates per 1,000 Live Births	Still-births	Rates per 1,000 Live Births	Maternal Deaths	Rates per 1,000 Live Births
1906.....	42,677	7,773	182.1	2,545	59	2,939	56	322	7.5
1907.....	44,651	7,732	173.2	2,602	58	2,530	56	289	6.5
1908.....	47,405	7,823	165.2	2,657	56	2,617	55	329	6.9
1909.....	47,598	7,658	161.2	2,661	56	2,539	53	311	6.5
1910.....	53,332	8,352	154.8	2,887	51	2,727	50	377	6.9
1911.....	58,133	7,642	131.4	2,801	49	2,754	47	427	7.3
1912.....	60,073	7,547	124.1	2,836	47	2,953	49	415	6.9
1913.....	61,432	7,542	122.7	2,903	47	2,866	46	400	7.4
1914.....	65,403	7,451	113.6	2,965	45	3,074	47	416	6.3
1915.....	66,476	7,077	106.4	2,862	43	3,075	46	390	5.8
1916.....	70,211	7,348	104.7	3,075	43	3,221	45	383	5.4
1917.....	75,209	7,582	109.7	3,175	42	3,183	42	417	5.5
1918.....	74,549	8,372	112.3	3,175	42	3,525	47	366	5.1
1919.....	70,935	6,111	86.1	2,696	38	3,047	42	472	6.1
1920.....	76,431	6,672	87.2	2,830	35	3,242	41	461	5.9
1921.....	78,172	5,773	73.8	2,830	35	3,242	41	461	5.9
1922.....	74,479	5,864	78.7	2,773	37	3,033	40	466	6.2
1923.....	72,929	5,368	71.9	2,621	35	3,169	42	424	5.4
1924.....	76,530	5,359	70.0	2,739	35	3,177	41	466	6.0
1925.....	74,193	5,109	68.8	2,697	35	3,010	40	461	6.2
1926.....	72,886	5,090	70.3	2,537	35	3,018	41	394	5.4
1927.....	72,799	4,464	61.3	2,462	33	3,074	42	450	6.1
1928.....	70,076	4,600	65.6	2,485	35	2,864	40	406	5.7
1929.....	68,297	4,116	59.2	2,233	32	2,767	40	367	5.3
1930.....	68,282	3,870	56.6	2,107	30	2,647	38	390	5.7
1931.....	64,078	3,649	56.9	2,064	32	2,578	40	378	5.9
1932.....	61,215	3,089	50.4	1,802	29	2,343	38	351	5.7
1933.....	56,072	2,608	46.5	1,533	27	2,073	36	289	5.1
1934.....	54,841	2,686	48.9	1,634	29	2,095	36	294	5.3
1935.....	54,145	2,539	46.1	1,560	28	1,905	34	240	4.7
1936.....	55,059	2,383	44.0	1,449	26	1,846	34	202	4.7
1937.....	55,197	2,170	40.0	1,327	24	1,731	31	182	3.7
1938.....	56,692	2,028	39.3	1,365	24	1,704	30	191	3.3
1939.....	56,850	2,180	38.2	1,412	25	1,609	30	173	2.9
1940.....	59,328	2,094	35.2	1,422	24	1,543	26	172	2.9

BUREAU OF VITAL STATISTICS

TABLE 5.—DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS—1940.

	Rate Per 1,000 Deaths Under One Month	Live Births Still-births	Maternal Deaths
New Jersey	24	26	2.9
Atlantic County	21	29	1.9
Atlantic City	20	28	0.0
Bergen County	22	23	2.1
Burlington County	20	21	3.4
Camden County	18	29	1.6
Camden City	17	33	1.6
Cape May County	25	18	3.1
Cumberland County	32	30	4.4
Essex County	25	24	0.6
East Orange	25	13	1.1
Irvington	22	35	0.0
Newark	26	26	4.7
Gloucester County	37	29	4.2
Hudson County	22	25	0.1
Bayonne	21	28	1.9
Hoboken	20	32	1.5
Jersey City	24	25	2.9
Union City	22	18	0.0
Hunterdon County	20	20	2.0
Mercer County	26	27	1.4
Trenton	28	27	5.3
Middlesex County	28	30	3.4
Monmouth County	31	24	2.2
Morris County	22	16	3.3
Ocean County	29	21	4.2
Passaic County	28	29	0.2
Passaic City	31	25	1.2
Paterson	31	34	2.6
Salem County	25	25	1.2
Somerset County	19	31	8.0
Sussex County	35	26	2.0
Union County	21	30	1.8
Elizabeth	24	32	3.1
Warren County	14	36	9.7

TABLE 7.—BIRTHS, BIRTH RATES, DEATHS UNDER ONE YEAR AND INFANT MORTALITY RATES (EXCLUSIVE OF STILLBIRTHS)—1940

	<i>Births (Exclusive of Stillbirths)</i>	<i>Birth Rates per 1 000 Population</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
New Jersey	59,328	14.3	2,094	35
Atlantic County	1,602	12.9	55	34
Atlantic City	808	12.6	26	32
Hammonton	131	17.0	2	15
Pleasantville	137	14.1	3	19
Bergen County	5,687	13.8	160	28
Bergenfield	158	15.3	2	13
Cliffside Park	245	14.5	6	24
Englewood	300	15.8	8	27
Fairview	102	11.6	0	—
Fort Lee	125	13.2	3	24
Garfield	414	14.8	19	46
Hackensack	361	13.7	21	58
Lodi	174	15.0	2	11
Lyndhurst Township	236	13.5	5	21
North Arlington	159	16.1	2	13
Ridgefield Park	61	5.4	1	16
Ridgewood	159	10.6	3	19
Rutherford	180	11.6	5	28
Teaneck Township	346	13.6	8	23
Wallington	146	16.2	7	48
Burlington County	1,453	15.0	57	39
Burlington City	171	15.7	9	53
Camden County	3,878	15.2	123	32
Audubon	112	12.6	5	45
Camden City	1,914	16.3	66	34
Collingswood	165	13.0	2	12
Gloucester City	240	17.5	13	54
Haddonfield	130	13.3	0	—
Pennsauken Township	177	9.9	4	23
Cape May County	326	11.3	10	31
Cumberland County	1,141	15.6	70	61
Bridgeton	286	17.9	20	70
Millville	224	15.1	21	94
Vineland	127	16.1	7	55

	<i>Births (Exclusive of Stillbirths)</i>	<i>Birth Rates per 1 000 Population</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
Essex County	11,718	14.0	406	35
Belleville	418	14.8	10	24
Bloomfield	594	14.2	18	30
East Orange	916	13.3	28	31
Irvington	717	13.0	20	28
Maplewood Township	216	9.3	7	32
Millburn Township	130	11.1	1	8
Montclair	453	11.4	21	46
Newark	6,444	15.0	239	37
Nutley	305	13.9	11	36
Orange	536	15.0	21	39
South Orange	128	9.3	4	31
West Orange	321	12.5	13	40
Gloucester County	1,187	16.4	68	57
Woodbury	138	16.6	3	22
Hudson County	9,043	13.9	298	33
Bayonne	1,064	13.4	34	32
Guttenberg	69	11.1	4	58
Harrison	236	16.6	11	47
Hoboken	655	13.1	17	26
Jersey City	4,514	15.0	160	35
Kearny	553	14.0	15	27
North Bergen Township	519	13.1	12	23
Secaucus	81	8.3	1	12
Union City	718	12.8	23	32
Weehawken Township	123	8.5	4	33
West New York	481	12.2	15	31
Hunterdon County	504	13.7	16	32
Mercer County	2,767	14.0	105	38
Princeton	98	12.7	3	31
Trenton	1,685	13.5	65	39
Middlesex County	3,230	14.9	122	38
Carteret	173	14.4	8	46
Highland Park	100	11.1	4	40
New Brunswick	512	15.4	22	43
Perth Amboy	602	14.6	16	27
Sayreville	126	15.4	4	32
South Amboy	137	17.6	5	36
South River	176	16.4	4	23
Woodbridge Township	395	14.5	19	48
Monmouth County	2,243	13.9	94	42
Asbury Park	166	11.4	11	66
Long Branch	250	14.4	6	24
Neptune Township	169	16.6	11	65
Red Bank	151	13.7	7	46

	Births (Exclusive of Stillbirths)	Birth Rates per 1 000 Population	Deaths Under One Year	Infant Mortality Rates
Morris County	1,795	14.2	63	38
Dover	142	13.5	5	35
Madison	132	16.5	5	38
Morristown	231	15.1	7	30
Ocean County	478	12.6	20	42
Passaic County	4,188	13.5	161	38
Clifton	665	13.6	22	33
Hawthorne	150	11.9	3	20
Passaic	805	13.1	32	40
Paterson	1,887	13.5	87	46
Salem County	808	19.1	35	43
Salem City	156	18.1	4	26
Somerset County	1,132	15.2	30	27
Bound Brook	156	20.5	9	58
North Plainfield	144	13.6	3	21
Somerville	128	14.7	6	47
Sussex County	508	17.1	25	49
Union County	4,920	15.0	148	30
Cranford Township	192	14.9	6	31
Elizabeth	1,593	14.5	58	36
Hillside Township	253	13.6	6	24
Linden	431	17.8	16	37
Plainfield	601	16.0	18	30
Rahway	250	14.3	5	20
Roselle	212	15.6	3	14
Roselle Park	97	10.0	4	41
Summit	238	14.7	3	13
Union Township	391	15.7	12	31
Westfield	257	13.9	4	16
Warren County	720	14.3	23	32
Phillipsburg	271	14.8	11	41

Typhoid Fever—The number of deaths was 11 and the death rate only 0.3 per 100,000 population. Similar figures for 1939 were 15 and 0.4 respectively. That the New Jersey rate was low was proven by the 1940 rate of 1.1 for the United States. 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.

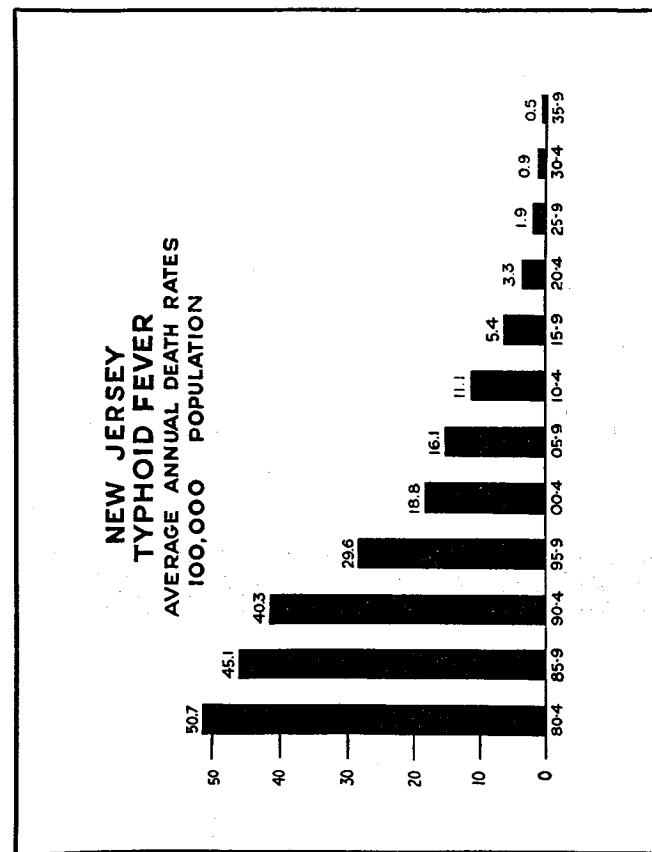


TABLE 8—COMPARATIVE DEATH RATES FROM TYPHOID FEVER PER 100,000 POPULATION, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Registration area of the United States	4.4	3.6	3.5	3.3	2.7	2.5	2.1	1.9	1.5	1.1
New Jersey	0.9	0.7	0.9	0.7	0.5	0.6	0.5	0.4	0.4	0.3

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

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Atlantic	1.5	2.2	2.1	1.5	5.8	4.3	1.4	1.4	2.4	0.8
Bergen	0.7	...	0.2	1.0	0.9	1.4	0.4	0.4	...	0.2
Burlington	1.0	3.1	4.1	...	...	1.0	2.0	1.0	1.0	...
Camden	0.7	1.5	1.5	0.3	1.1	0.3	0.7	...	1.2	...
Cape May .....	...	...	...	...	...	...	...	...	...	...
Cumberland	1.4	1.3	2.7	...	...	...	...	...	1.4	...
Essex	0.7	0.5	0.6	0.4	0.1	0.1	0.5	0.5	0.6	0.1
Gloucester	2.7	2.6	2.5	1.0	...	1.2	1.2	...	...	1.4
Hudson .....	...	0.2	0.1	0.1	...	0.2	0.1	0.6	...	0.3
Hunterdon .....	...	...	...	...	...	...	...	...	...	...
Mercer	1.5	0.5	2.0	0.5	...	1.0	...	0.5	...	1.0
Middlesex	1.3	1.3	0.4	...	...	...	...	0.4	...	0.9
Monmouth	2.6	3.1	1.8	7.7	1.2	0.6	3.6	...	...	0.6
Morris	0.8	...	1.6	1.7	...	...	...	2.6	...	...
Ocean	2.9	...	2.7	...	...	...	...	...	...	...
Passaic	1.9	0.6	...	0.6	0.3	0.3	...	0.3	0.3	...
Salem .....	...	...	5.4	...	...	5.5	...	...	2.4	...
Somerset .....	...	...	5.6	1.4	1.4	2.8	1.3	...	...	...
Sussex .....	...	...	...	...	...	...	3.4	...	...	...
Union	1.3	...	0.5	...	...	0.2	2.8	...	...	0.3
Warren .....	...	...	...	...	...	...	...	...	...	...
New Jersey	0.9	0.7	0.9	0.7	0.5	0.6	0.5	0.4	0.4	0.3

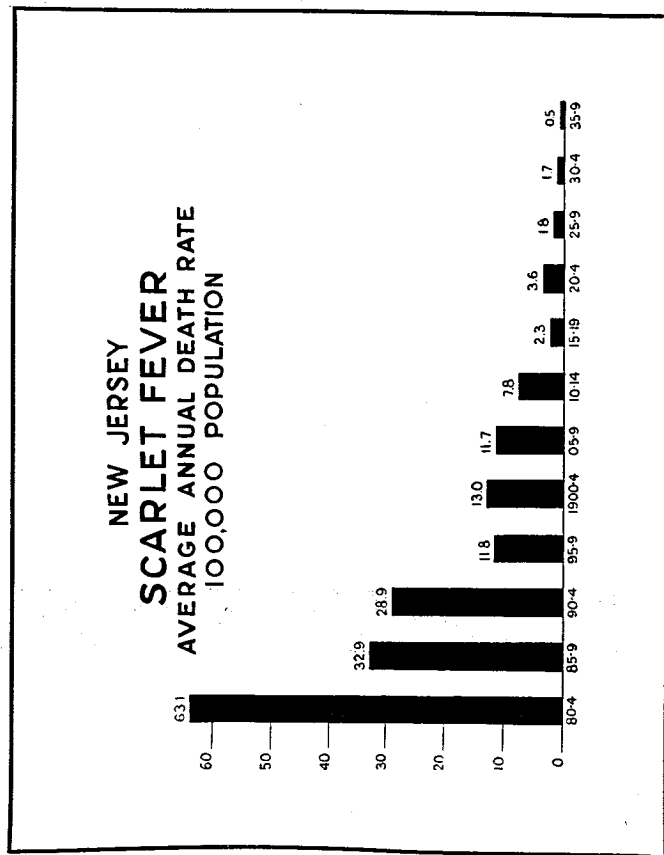
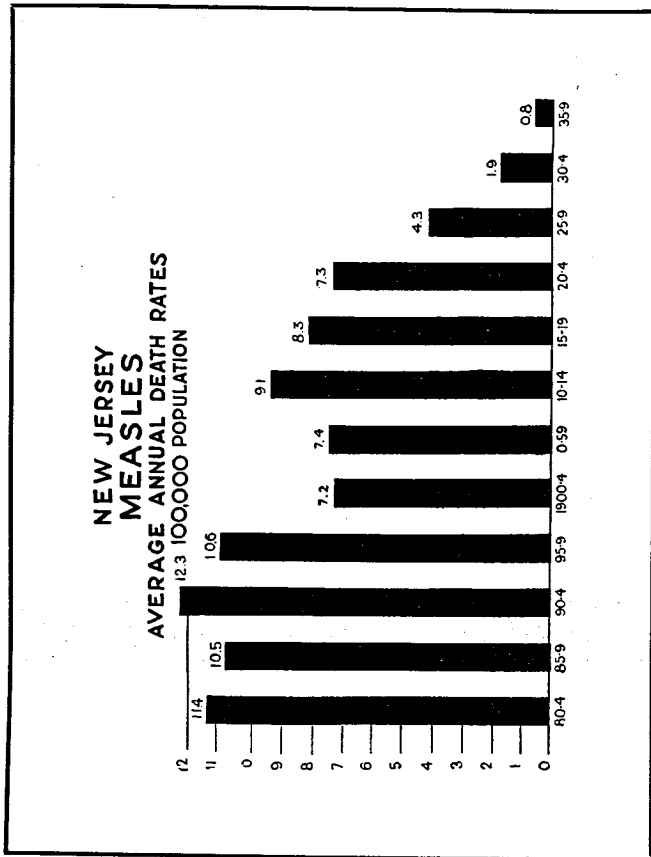
Smallpox—No deaths from smallpox have occurred in New Jersey since 1925, when as in 1924 the disease was prevalent in epidemic form in certain sections of the State.

Malaria—As the following figures show, deaths during recent years from this affection are practically negligible in this State:

1879	268	1894	162	1909	25	1924	6
1880	293	1895	144	1910	25	1925	3
1881	431	1896	119	1911	25	1926	2
1882	379	1897	132	1912	29	1927	2
1883	290	1898	82	1913	11	1928	3
1884	230	1899	96	1914	10	1929	5
1885	209	1900	84	1915	17	1930	5
1886	243	1901	50	1916	10	1931	0
1887	217	1902	36	1917	5	1932	3
1888	264	1903	40	1918	13	1933	1
1889	203	1904	47	1919	2	1934	0
1890	195	1905	21	1920	5	1935	6
1891	180	1906	33	1921	10	1936	3
1892	198	1907	29	1922	3	1937	0
1893	148	1908	30	1923	2	1938	1
						1939	1
						1940	0

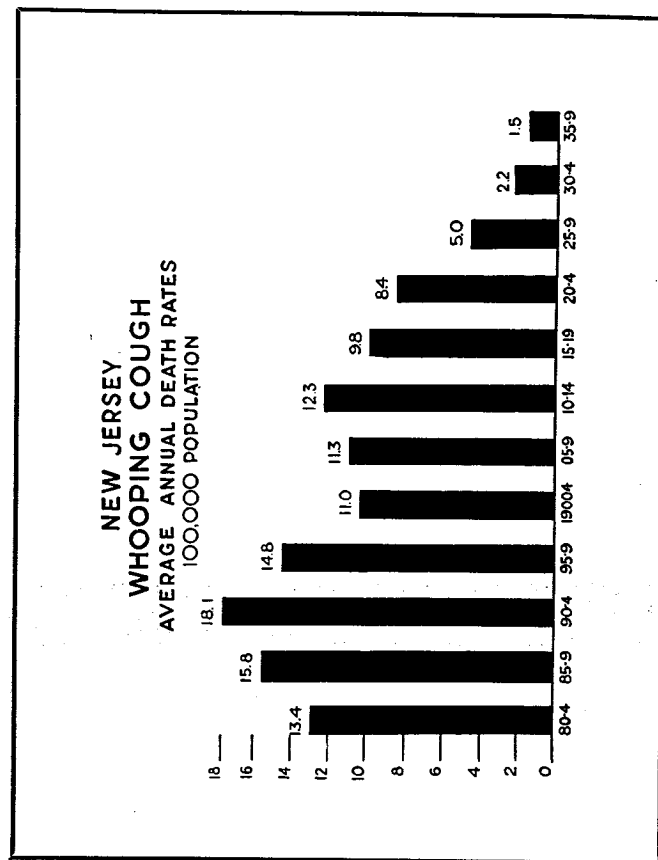
Measles—Eight deaths occurred from this disease, equivalent to a rate of 0.2 per 100,000 population. In 1939 no deaths were reported.

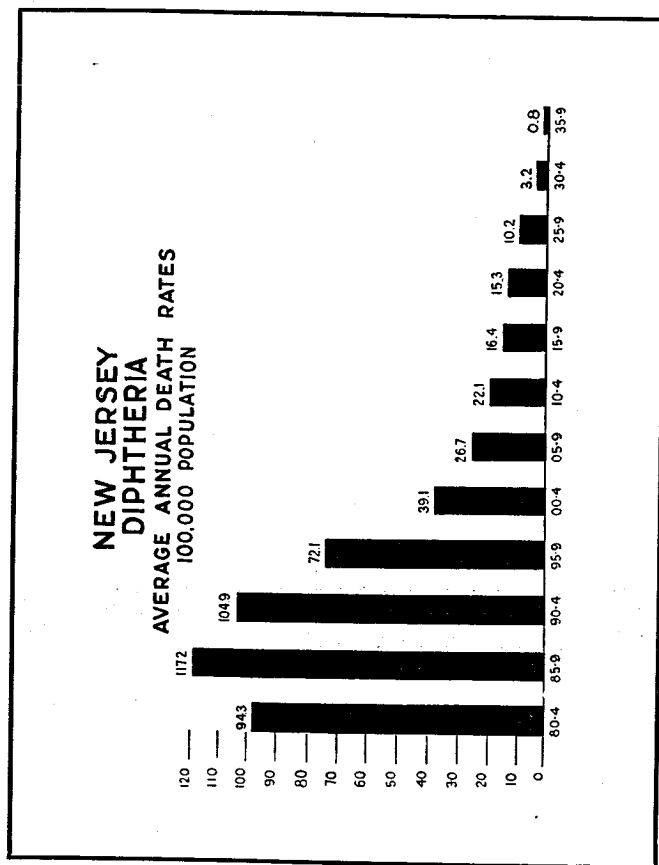
Scarlet Fever—The number of deaths from scarlet fever was 17, equivalent to a rate of 0.4 per 100,000 population. The number for the previous year was 20 and the rate was 0.5.



Whooping Cough—This disease caused 24 deaths during 1940; for 1939 the number was 44 and for 1938, 54. The 1940 death rate was 0.58 per 100,000 population.

Diphtheria—During 1940 only 23 persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.6 per 100,000 population. The rate was identical with the 1939 rate and was 25% lower than the 1938 rate of 0.8. 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 1940 was decidedly favorable when compared with the rate for the United States, which was 1.1.





Tuberculosis—The number of deaths from all forms of tuberculosis during 1940 was 1,825, of which 1,688 were deaths from tuberculosis of the respiratory system. The death rates per 100,000 population were 43.8 and 40.5 respectively, which were the lowest rates for tuberculosis ever recorded in New Jersey. The rates for 1939 were 43.9 and 40.8.

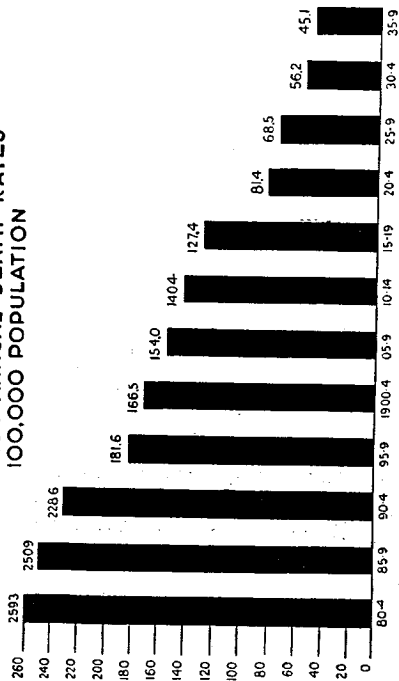
White—The number of deaths of white persons from all forms of tuberculosis was 1,386. This is equivalent to a rate of 35.2 per 100,000 white population. Similar figures for 1939 were 1,421 and 36.2.

Colored—The number of deaths from all forms of tuberculosis was 439 and the rate 190.0 per 100,000 of colored population. Similar figures for 1939 were 400 and 174.6.

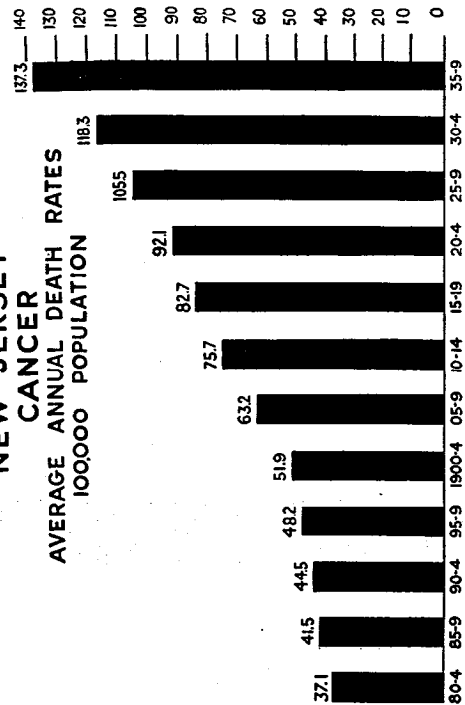
Rates for tuberculosis of the respiratory system and other forms of tuberculosis, by color, may be obtained by reference to Table 15.

Cancer—The number of deaths from cancer and other malignant growths for 1940 was 6,279 and the death rate was 150.8 per 100,000 population compared with 143.7 for the previous year. The mortality from the disease, with few exceptions, has steadily increased during the sixty-two years recorded 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
RESPIRATORY TUBERCULOSIS
AVERAGE ANNUAL DEATH RATES
100,000 POPULATION**



**NEW JERSEY
CANCER
AVERAGE ANNUAL DEATH RATES
100,000 POPULATION**



DEPARTMENT OF HEALTH

TABLE 12—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY ORGAN AFFECTED—NEW JERSEY, 1940

Table with columns for Age Periods (Under 1 year to 90 and over) and rows for various organs (Buccal Cavity and Pharynx, Digestive Organs and Peritoneum, Respiratory System, etc.).

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TABLE 12A DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY PART OF BODY AFFECTED AND COLOR OF DECEDENT—NEW JERSEY, 1940

Table with columns for Total, White, and Colored, and rows for various body parts (Cancer of the buccal cavity and lip, Cancer of the digestive organs and peritoneum, Cancer of the uterus, etc.).

Encephalitis Lethargica or Sleeping Sickness—Twenty-four deaths were assigned to this disease for the year 1940. In 1922, which was the first year that the deaths were separately classified, there were forty-five deaths. Twenty-two deaths were recorded for 1939.

Nephritis—Deaths due to acute and chronic nephritis totaled 3,210, compared with 2,809 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 1940 showed an increase of 101 over the number for 1939. 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:

1931	694	1936	574
1932	740	1937	588
1933	709	1938	682
1934	667	1939	563
1935	593	1940	664

TABLE 13A—VIOLENT OR ACCIDENTAL DEATHS IN NEW JERSEY, 1940

SUICIDE BY SOLID OR LIQUID POISONS	4	ACCIDENTAL ABSORPTION OF POISONOUS GAS	66
Arsenic and compounds	7	Illuminating gas	12
Barbituric acid and derivatives	2	Motor vehicle exhaust gas	17
Cresol compounds	2	Other carbon monoxide gas	2
Gasoline	1	Other poisonous gases	2
Nux vomica and strychnine	1		
Carbolic acid and phenol	1	ACUTE ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS	1
Other solid or liquid poisons	31	Arsenic and compounds	1
SUICIDE BY POISONOUS GASES	186	Cresol compounds	6
Illuminating gas	49	Gasoline	1
Motor vehicle exhaust gas	49	Mercury and compounds	1
Other carbon monoxide gas	2	Nux vomica and strychnine	1
Other poisonous gases	2	Carbolic acid and phenol	1
SUICIDE BY OTHER MEANS	166	Tobacco and derivatives	2
Hanging or strangulation	19	Narcotics	1
Drowning	129	Methanol and other alcohols	9
Firearms and explosives	29	Other and unspecified substances	10
Crushing or piercing instruments	29	Concomitant	67
Jumping from high places	30	Accidental burns (except due to configuration)	20
Crushing	30	Accidental mechanical suffocation	30
Other or unspecified means	4	Accidental drowning	80
Infanticide (homicide of infants under 1 year of age)	4	Accidental injury by firearms	30
Homicide by firearms	52	Accidental injury by cutting or piercing instruments	7
Homicide by other means	18		
Home accidents (except collisions with motor vehicles)	22	ACCIDENTAL INJURY BY FALL OR CRUSHING	762
Railway accidents (except collisions with motor vehicles)	65	Fall	15
MOTOR VEHICLE ACCIDENTS	21	Crushing all deaths attributed to a catalysis regardless of their nature	2
Collisions between automobiles	1	Injury by animals (not specified as venomous or occurring in the course of agricultural and forestry operations)	17
Automobile accidents (except collisions with trains or street cars)	903	Excessive heat	1
Motorcycle accidents (except collisions with automobiles)	12	Excessive thirst	17
Streetcar accidents (except collisions with trains or motor vehicles)	1	Lightning	14
Other and unspecified road-transport accidents	9	Accidents due to electric currents (except lightning)	16
Water-transport accidents	47	Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations)	1
Air-transport accidents	8		
Accidents in mines and quarries	9	OTHER ACCIDENTS	
AGRICULTURAL AND FORESTRY ACCIDENTS	7	Sequelae of preventive immunization, inoculation or other accidents due to medical or surgical intervention	1
Accidents involving agricultural machinery and vehicles	3	Lack of care of the newborn	2
Injury by animals in agriculture	3	Obstruction, asphyxiation or puncture by ingested objects	14
Other agricultural accidents	27	Other and unspecified accidents	143
Other accidents involving machinery	27		
Food poisoning	5		

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TABLE 13B—MOTOR VEHICLE FATALITIES IN NEW JERSEY
BY TYPE OF ACCIDENT—1940

Total	937
Collision with	
Railroad train	21
Street car	1
Horse drawn vehicle	0
Motorcycle	12
Pedestrian	461
Bicycle	18
Other Motor Vehicle	237
Fixed object	114
Non-collision	63
Type not stated	10

TABLE 13C—ACCIDENTAL DEATHS IN NEW JERSEY
BY TYPE OF INJURY—1940

	Total	Accident in				Other	Not stated
		Home	Farm	Indus- trial Place	Public Place		
Total	2684	888	28	304	1363	13	88
Poisonous gas	108	86	....	13	2	4	3
Burns	212	131	1	66	13	....	1
Mechanical suffocation	48	44	....	1	3	....	....
Drowning	237	10	1	12	206	4	4
Falls	784	536	9	84	133	1	21
Cutting or Piercing	10	3	1	1	2	....	3
Crushing, landslides	1123	14	14	108	975	1	11
Electric currents	14	2	....	8	4	....	....
Other and unspecified injuries....	148	62	2	11	25	3	45

BUREAU OF VITAL STATISTICS

TABLE 13D—DEATHS IN NEW JERSEY FROM CERTAIN TYPES
OF ACCIDENTS BY COUNTY OF OCCURRENCE
1940

	Total		Falls	Burns	Drowning
	Accidental Deaths	Motor Vehicle			
Total	2684	937	762	161	201
Atlantic County	96	31	29	7	9
Bergen County	133	72	59	10	7
Burlington County	100	55	17	9	6
Camden County	155	62	37	21	10
Cape May County	36	11	5	2	7
Cumberland County	64	27	12	2	14
Essex County	423	129	166	32	14
Gloucester County	79	37	17	4	3
Hudson County	306	65	119	24	33
Hunterdon County	39	19	5	1	3
Mercer County	137	43	44	7	13
Middlesex County	190	80	36	6	16
Monmouth County	134	55	36	7	15
Morris County	157	37	25	7	7
Ocean County	58	20	11	4	13
Passaic County	124	48	36	2	11
Salem County	35	17	8	2	6
Somerset County	52	25	12	2	6
Sussex County	36	9	6	5	1
Union County	140	61	32	6	4
Warren County	47	25	13	....	1
Out of State	21	9	8	1	2
Not stated	72	....	29	....	....

DEPARTMENT OF HEALTH

TABLE 13E—ACCIDENTAL DEATHS IN NEW JERSEY BY MONTH OF DEATH
1940

	Total				
	Accidental Deaths	Motor Vehicle	Falls	Burns	Drowning
Total	2684	937	762	161	201
January	235	62	83	33	6
February	171	52	65	12	9
March	206	56	63	20	14
April	170	54	57	14	6
May	194	72	66	9	11
June	242	81	61	5	37
July	271	73	75	14	47
August	236	88	61	6	31
September	273	77	59	5	25
October	206	96	62	9	6
November	244	122	46	15	3
December	236	104	64	19	6

TABLE 13F—ACCIDENTAL DEATHS IN NEW JERSEY BY AGE OF DECEASED
1940

	Total				
	Accidental Deaths	Motor Vehicle	Falls	Burns	Drowning
All ages	2684	937	762	161	201
Under 5 years	138	28	11	20	15
5 to 9	88	23	7	13	22
10 to 14	73	19	7	5	27
15 to 19	133	59	2	3	26
20 to 24	147	71	7	9	15
25 to 64	1309	538	250	79	82
65 and over	796	194	478	32	14

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TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL, IN NEW JERSEY—1940

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Percentage of Total	
			Males	Females
ALL CAUSES				
1	Typhoid and paratyphoid fevers	0.1	54	46
2	Plague	0.0	67	33
3	Scarlet fever	0.1	77	23
4	Whooping cough	0.1	58	42
5	Diphtheria	0.1	74	26
6	Tuberculosis of the respiratory system	3.7	65	35
7	All other forms of tuberculosis	0.3	56	44
8	Malaria	0.0	69	31
9	Syphilis	1.0	69	31
10	Influenza	0.4	49	51
11	Smallpox	0.0	63	37
12	Measles	0.0	57	43
13	Typhus fever	0.0	62	38
14	Other infectious or parasitic diseases	0.5	62	38
15	Cancer and other malignant tumors	13.9	50	50
16	Nonmalignant tumors or tumors of unspecified nature	0.5	27	73
17	Chronic rheumatism and gout	0.1	32	68
18	Diabetes mellitus	3.4	34	66
19	Chronic or acute alcoholism	0.2	86	14
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	0.0	41	59
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1.4	41	59
22	Intracranial lesions of vascular origin	0.3	58	42
23	Other diseases of the nervous system and sense organs	8.2	45	55
24	Diseases of the heart	33.0	55	45
25	Other diseases of the circulatory system	2.1	50	50
26	Bronchitis	0.3	68	37
27	Pneumonia and bronchopneumonia	4.1	55	45
28	Other diseases of the respiratory system	0.6	60	40
29	Diarrhea and enteritis	0.4	50	50
30	Appendicitis	0.9	59	41
31	Diseases of the liver and biliary passages	1.7	51	49
32	Other diseases of the digestive system	2.0	66	34
33	Nephritis	7.1	50	50
34	Other diseases of the urinary and genital systems	1.1	65	35
35	Puerperal infection	0.2	0	100
36	Other diseases of pregnancy, childbirth, and the puerperium	0.2	0	100
37	Diseases of the skin, cellular tissue, bones, and organs of movement	0.4	57	43
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	0.2	57	43
39	Senility, old age	3.3	57	43
40	Suicide	0.3	38	62
41	Homicide	1.5	72	28
42	Automobile accidents (all motor-driven road vehicles)	0.2	73	27
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1.9	77	23
44	Causes of death ill-defined, unknown, or unspecified	3.8	66	34
		0.1	70	30

TABLE 15—DEATH RATES, TOTAL, WHITE AND COLORED, FROM IMPORTANT CAUSES, PER 100,000 TOTAL, WHITE AND COLORED POPULATION IN NEW JERSEY—1940.

Abridged International list number	CAUSE OF DEATH	Total deaths per 100,000 estimated population.	White deaths per 100,000 estimated white population.	Colored deaths per 100,000 estimated colored population.
	ALL CAUSES	1085.8	1063.9	1459.3
1	Typhoid and paratyphoid fevers	0.3	0.3	0.3
2	Plague	0.4	0.4	0.9
3	Scarlet fever	0.6	0.4	3.5
4	Whooping cough	0.4	0.5	0.9
5	Diphtheria	0.6	0.5	0.9
6	Tuberculosis of the respiratory system	40.5	33.1	104.7
7	All other forms of tuberculosis	3.3	2.1	23.4
8	Malaria	11.2	8.0	65.4
9	Syphilis	4.2	4.0	7.8
10	Influenza	0.2	0.2	0.4
11	Smallpox	0.1	0.1	0.1
12	Measles	5.1	5.1	9.1
13	Typhus fever	0.2	0.2	0.4
14	Other infectious or parasitic diseases	150.8	153.0	114.3
15	Cancer and other malignant tumors	4.9	4.5	11.3
16	Nonmalignant tumors or tumors of unspecified nature	1.5	1.6	0.9
17	Chronic rheumatism and gout	36.5	36.3	39.0
18	Diabetes mellitus	1.8	1.6	4.8
19	Chronic or acute alcoholism	15.3	15.0	19.0
20	Avitaminoses, other general diseases, diseases of the blood and chronic poisonings	3.2	3.2	3.2
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	89.2	89.0	93.1
22	Intracranial lesions of the nervous system and sense organs	8.4	8.3	9.1
23	Other diseases of the nervous system and sense organs	358.9	360.5	331.6
24	Diseases of the heart	22.7	22.6	24.7
25	Other diseases of the circulatory system	27.7	27.7	27.7
26	Bronchitis	3.1	3.1	3.0
27	Pneumonia and bronchopneumonia	44.8	41.6	99.1
28	Other diseases of the respiratory system	6.5	6.6	6.1
29	Diarrhea and enteritis	4.3	4.0	9.5
30	Appendicitis	9.9	9.7	13.0
31	Diseases of the liver and biliary passages	19.0	19.4	11.7
32	Other diseases of the digestive system	22.1	21.6	31.6
33	Nephritis	77.1	73.6	136.8
34	Other diseases of the urinary and genital systems	12.3	11.8	20.8
35	Puerperal infection	2.0	1.8	6.5
36	Other diseases of pregnancy, childbirth, and the puerperium	2.1	1.9	5.2
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1.8	1.8	1.7
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	35.7	33.3	77.9
39	Senility, old age	3.7	3.6	4.8
40	Suicide	15.9	16.5	6.5
41	Homicide	2.4	1.6	15.6
42	Automobile accidents (all motor-driven road vehicles)	21.1	20.6	29.9
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	41.5	40.9	52.4
44	Causes of death ill-defined, unknown, or unspecified	0.8	0.7	2.6

TABLE 16—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATH, IN NEW JERSEY—1940

Abridged International list number	CAUSE OF DEATH	MONTH OF DEATH											
		January	February	March	April	May	June	July	August	September	October	November	December
	ALL CAUSES	45,206	44,900	41,833	38,665	39,929	34,742	37,730	33,200	32,114	33,903	36,806	37,731
1	Typhoid and paratyphoid fevers	12	1	3	1	1	1	2	1	1	1	1	1
2	Plague	17	2	3	2	3	2	1	1	1	1	1	1
3	Scarlet fever	24	3	4	3	3	2	1	1	2	3	2	3
4	Whooping cough	23	2	2	2	2	2	1	1	2	3	2	3
5	Diphtheria	1,688	170	130	174	168	136	148	118	129	121	137	115
6	Tuberculosis of the respiratory system	1,371	14	10	17	11	13	18	18	12	13	9	9
7	All other forms of tuberculosis	467	47	48	43	41	44	43	27	28	31	30	33
8	Malaria	176	41	49	14	15	14	3	5	4	4	6	15
9	Syphilis	8	1	1	1	3	2	1	1	1	1	1	1
10	Influenza	214	27	21	17	14	15	10	10	11	10	15	20
11	Smallpox	6,279	579	505	500	502	550	561	551	511	487	555	489
12	Measles	204	12	15	19	9	22	21	23	20	13	17	16
13	Typhus fever	1518	199	156	182	125	116	132	100	93	112	118	139
14	Other infectious or parasitic diseases	73	4	8	5	7	5	9	9	9	4	4	6
15	Cancer and other malignant tumors	635	76	65	62	45	64	49	47	53	49	40	48
16	Nonmalignant tumors or tumors of unspecified nature	139	12	16	13	11	13	8	11	4	8	11	11
17	Chronic rheumatism and gout	8,715	354	369	327	212	270	315	284	270	303	289	317
18	Diabetes mellitus	348	28	30	44	34	33	37	25	20	30	23	22
19	Chronic or acute alcoholism	14,942	1519	1430	1449	1827	1273	1126	1142	1030	1195	1200	1232
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	73	4	6	8	5	7	5	9	9	4	4	6
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	89	12	16	13	11	13	9	11	4	8	11	11
22	Intracranial lesions of the nervous system and sense organs	848	28	30	44	34	33	37	25	20	30	23	22
23	Other diseases of the heart	14,946	1519	1430	1449	1827	1273	1126	1142	1030	1195	1200	1232
24	Diseases of the circulatory system	91	91	91	91	89	83	83	83	83	83	83	80

26	Bronchitis	128	18	13	14	12	8	13	8	5	6	14	11
27	Pneumonia and bronchopneumonia	1,865	274	287	233	152	176	100	91	80	73	132	198
28	Other diseases of the respiratory system	272	30	29	24	20	23	19	14	24	20	22	28
29	Diarrhea and enteritis	183	11	17	9	19	21	19	20	15	15	15	10
30	Appendicitis	413	32	36	31	43	40	33	42	49	33	37	19
31	Diseases of the liver and biliary passages	790	72	59	74	73	60	70	76	61	54	83	66
32	Other diseases of the digestive system	3,210	82	66	94	69	94	75	87	63	56	67	82
33	Nephritis	3,210	319	313	327	290	294	234	259	200	215	239	254
34	Other diseases of the urinary and genital systems	511	58	45	47	50	45	56	40	43	35	30	32
35	Puerperal infection	85	7	8	8	8	7	7	11	8	6	4	6
36	Other diseases of pregnancy, childbirth, and the puerperum	87	7	5	9	4	8	8	10	6	6	11	7
37	Diseases of the skin, cellular tissue, bones and organs of movement	74	9	4	3	9	9	8	6	2	4	6	5
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	1,488	108	108	136	124	147	100	144	130	125	111	120
39	Senility, old age	153	10	11	19	11	8	11	12	12	8	13	20
40	Suicide	664	58	47	52	59	67	63	54	49	49	54	59
41	Homicide	99	4	4	13	8	10	7	8	5	11	3	13
42	Automobile accidents (all motor-driven road vehicles)	879	65	43	60	59	72	78	65	81	70	113	94
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1,729	184	124	147	115	127	163	200	137	179	103	129
44	Causes of death ill-defined, unknown, or unspecified	33	5	4	1	1	1	1	6	1	4	.....	3

TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS) FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX AND COLOR IN NEW JERSEY, 1940

CAUSE OF DEATH, SEX, AND COLOR	AGE PERIODS—YEARS																									
	All deaths	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over	Age unknown
All causes.....	45206	2094	163	82	97	70	2506	251	298	491	634	774	964	1384	1780	3747	3496	4066	4809	5412	5566	4640	3360	1706	732	
Males—White.....	41835	1780	134	67	79	62	2122	227	257	417	520	656	800	1024	1505	2490	2339	3321	3643	4232	5171	4779	3280	1646	695	
Males—Colored.....	2874	104	15	3	18	8	384	34	36	74	105	118	164	214	284	287	299	532	661	681	711	683	432	180	37	
Females—White.....	17177	187	11	8	10	8	193	128	144	242	302	349	443	580	868	1429	1948	2231	2657	2775	2663	2305	1638	833		
Females—Colored.....	19181	746	60	23	34	23	866	99	113	175	227	307	327	408	439	144	167	177	140	187	97	79	388	23	16	
1) Typhoid and paratyphoid fever—	1664	157	18	7	8	3	193	14	23	46	53	72	82	108	141	163	163	165	168	175	88	82	42	36	23	
Males—White.....	12						1			2	1	1	1	1	1	1	1									
Males—Colored.....	8						1			1	1	1	1	1	1	1	1									
Females—White.....	4						1			1	1	1	1	1	1	1	1									
Females—Colored.....																										
2) Plague.....																										
Males—White.....																										
Males—Colored.....																										
Females—White.....																										
Females—Colored.....																										
3) Scarlat fever.....																										
Males—White.....	17	2		2	2	2	8	5	1																	
Males—Colored.....	12	1		1	1	1	4	4																		
Females—White.....	2	1		1	1	1	5	1																		
Females—Colored.....	4																									
4) Whooping cough.....																										
Males—White.....	24	15	4	2	2		23	1																		
Males—Colored.....	5	4	1				5	1																		
Females—White.....	7	3	1	2	1		7	7	3																	
Females—Colored.....	3						3																			

5) Diphtheria—	23	1																								
Total.....	1688	5	7	2	3	1	8	2	12	56	137	181	171	159	189	157	187	171	126	95	52	23	14	5	1	
Males—White.....	15									3	1															
Males—Colored.....	2									1	3	1	2	1	1											
Females—White.....	212	1	2	1	1	1	3	4	4	18	21	24	21	33	35	19	19	12	6	11	5	6	1			
Females—Colored.....	413	3	1	2	1	2	4	1	1	15	55	51	50	51	34	31	26	21	26	20	10	8	2			
6) Tuberculosis of the respiratory system—	173	1	3	1	2	1	8	2	10	20	24	34	24	21	15	4										
Total.....	137	5	6	3	6	2	22	6	9	10	11	13	12	6	9	6	11	10	8	8	8	5	1			
Males—White.....	49	1	2	1	1	1	5	3	1	1	7	5	3	4	3	4	7	4	2	2	2	1				
Males—Colored.....	28	3	2	1	1	1	8	3	2	3	2	4	3	2	4	2										
Females—White.....	34	1	1	1	1	1	4	3	1	3	3	3	2	1	2	1										
Females—Colored.....	20	1	1	1	2	1	5	1	6	4	3	3	2	1	1											
7) All other forms of tuberculosis—																										
Total.....	137	5	6	3	6	2	22	6	9	10	11	13	12	6	9	6	11	10	8	8	8	5	1			
Males—White.....	49	1	2	1	1	1	5	3	1	1	7	5	3	4	3	4	7	4	2	2	2	1				
Males—Colored.....	28	3	2	1	1	1	8	3	2	3	2	4	3	2	4	2										
Females—White.....	34	1	1	1	1	1	4	3	1	3	3	3	2	1	2	1										
Females—Colored.....	20	1	1	1	2	1	5	1	6	4	3	3	2	1	1											
8) Malaria.....																										
Total.....																										
Males—White.....																										
Males—Colored.....																										
Females—White.....																										
Females—Colored.....																										
9) Syphilis.....	487	13								5	4	7	32	23	35	60	84	67	50	39	32	7	8			
Males—White.....	224	5								1	1	3	8	9	16	27	33	39	31	27	17	3	4			
Males—Colored.....	99									1	1	1	7	6	8	17	21	8	6	3	1	1				
Females—White.....	92	4								3	2	9	3	5	9	14	10	10	6	6	12	3				
Females—Colored.....	52	4								4	4	7	8	3	6	7	11	5	9	6	12	3				

TABLE 20-DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE
(COUNTY FIGURES INCLUDE)

	Essex County	Belleville	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange
1. Typhoid fever	1			1								
2. Paratyphoid fever												
3. Plague												
4. Cholera												
5. Undulant fever (brucellosis)												
6. Cerebrospinal (meningococcus) meningitis	1							1				
7. Anthrax (infection by Bacillus anthracis)	1							1				
8. Scarlet fever	1											
9. Whooping cough	4											
10. Diphtheria	1							2	1			
11. Erysipelas	2				1			1				
12. Tetanus	1							1	1			
13. Tuberculosis of the respiratory system	432	6	8	28	14	1	2	14	317	5	17	
14. Tuberculosis of the meninges and central nervous system												
15. Tuberculosis of the intestines and peritoneum	9							9				
16. Tuberculosis of the vertebral column	9	1		1				5	1	1		
17. Tuberculosis of the bones and joints	8		1	1				5	1			
18. Tuberculosis of the skin and subcutaneous cellular tissue	1							1				
19. Tuberculosis of the lymphatic system								1				
20. Tuberculosis of the genito-urinary system	2							2				
21. Tuberculosis of other organs	4		1					2				
22. Disseminated tuberculosis	1							2				
23. Leprosy	7			1		1		5				
24. Septicemia and purulent infection (nonpuerperal)	4	1		1				2				
25. Gonococcus infection	3							2				
26. Other diseases due to bacteria (except dysentery)								7				
27. Dysentery	1							1				
28. Malaria	1							1				
29. Other diseases due to parasitic protozoa								2				
30. Syphilis												
31. Relapsing fever			2	2	5	3		4	88	1	4	
32. Other diseases due to spirochetes	4							1	1			
33. Influenza	26	1	3	4	1			4	10	2	1	
34. Smallpox	5							5		1		
35. Measles												
36. Acute poliomyelitis and acute poli-encephalitis												
37. Acute infectious encephalitis (lethargic)												
38. Other diseases due to filtrable viruses	4							1	3			
39. Typhus fever and typhus-like diseases (due to TICKETTSIA)	1							1				
40. Ankylostomiasis												
41. Hydatid disease	1											
42. Other diseases caused by helminths	1											
43. Mycoses												
44. Other infectious and parasitic (communicable) diseases	22	1		1	2	1	1	15	1			
45. Cancer of the buccal cavity and pharynx												
46. Cancer of the digestive organs and peritoneum	34		4	2	2		1	24	1			
47. Cancer of the respiratory system	612	18	28	61	52	11	5	24	315	19	11	
48. Cancer of the uterus	111	5	4	13	5	2	1	4	64	2	4	
49. Cancer of other female genital organs	91	4	3	7	8			6	51	2	4	
	42	2	3	5	2	2		3	16	2	1	

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS.
PLACES WHICH FOLLOW: 1940.

	West Orange	Gloucester County	Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Stuyvesant	South Amboy	South River	Woodbridge Twp.
1. Typhoid fever		1	1	2					2								2			2								
2. Paratyphoid fever																		1										
3. Plague																												
4. Cholera																												
5. Undulant fever (brucellosis)																												
6. Cerebrospinal (meningococcus) meningitis																												
7. Anthrax (infection by Bacillus anthracis)					1	1																						
8. Scarlet fever																												
9. Whooping cough																												
10. Diphtheria					4	1			2	1																		
11. Erysipelas		1			2								1								1			1				
12. Tetanus					18				4	7				4	2													
13. Tuberculosis of the respiratory system		1																										
14. Tuberculosis of the meninges and central nervous system	7	20	2	309	28	1	10	28	169	15	6	3	32	7	10	11	117	1	88	86	5	2	28	16	3	4	3	12
15. Tuberculosis of the intestines and peritoneum																												
16. Tuberculosis of the vertebral column																												
17. Tuberculosis of the bones and joints																												
18. Tuberculosis of the skin and subcutaneous cellular tissue																												
19. Tuberculosis of the lymphatic system																												
20. Tuberculosis of the genito-urinary system																												
21. Tuberculosis of other organs																												
22. Disseminated tuberculosis																												
23. Leprosy																												
24. Septicemia and purulent infection (nonpuerperal)																												
25. Gonococcus infection																												
26. Other diseases due to bacteria (except dysentery)																												
27. Dysentery																												
28. Malaria																												
29. Other diseases due to parasitic protozoa																												
30. Syphilis																												
31. Relapsing fever																												
32. Other diseases due to spirochetes																												
33. Influenza	2	11	2	57	9			7	23	2	3	1	5	1	6	1	32	4	19	22		1	6	7				2
34. Smallpox																												
35. Measles		6		19	4				12	1			2				5	11		5	3				1		1	1
36. Acute poliomyelitis and acute poli-encephalitis																												
37. Acute infectious encephalitis (lethargic)																												
38. Other diseases due to filtrable viruses																												
39. Typhus fever and typhus-like diseases (due to TICKETTSIA)																												
40. Ankylostomiasis																												
41. Hydatid disease																												
42. Other diseases caused by helminths																												
43. Mycoses																												
44. Other infectious and parasitic (communicable) diseases																												
45. Cancer of the buccal cavity and pharynx																												
46. Cancer of the digestive organs and peritoneum																												
47. Cancer of the respiratory system	12	56	5	620	49	6	13	42	252	35	30	8	39	16	28	29	148	6	104	149	6	5	31	33	4	7	3	16
48. Cancer of the uterus	3	7		91	9	1	2	6	58	4	2	1	5	4	4	6	33	1	19	40	1	3	5	9	2	2	4	3
49. Cancer of other female genital organs	1	10		71	7	1	1	3	44	2	4	1	4	3	1	2	3		13	20	1	4	1		1		2	
	3	2		21	2			6	8	1	1		1	1		1	2	6	1	3	12	2	2	2	2	1		1

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE

Table with 13 columns: STATE TOTAL, Atlantic County, Atlantic City, Hammon, Pleasantville, Bergen County, Bergenfield, Cliffside Park, Englewood, Fairview, Fort Lee, Garfield. Rows list various causes of death from 50 to 99.

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS. PLACES WHICH FOLLOW: 1940.

Table with 19 columns: Hackensack, Loch, Lyndhurst Twp., North Arlington, Ridgefield Park, Ridgewood, Rutherford, Teaneck Twp., Wallington, Burlington County, Burlington, Camden County, Camden, Audubon, Collingswood, Gloucester City, Pennsauken Twp., Haddonfield, Cape May County, Cumberland County, Bridgeton, Millville, Vinland. Rows list various causes of death from 50 to 99.

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE (COUNTY FIGURES INCLUDE

Table with columns for Essex County, Belleville, Bloomfield, East Orange, Irvington, Maplewood Twp., Millburn Twp., Montclair, Newark, Nutley, Orange, South Orange, West Orange, Gloucester County. Rows list various causes of death such as Cancer of the breast, Cancer of the male genital organs, etc.

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS. PLACES WHICH FOLLOW: 1940.

Table with columns for Woodbury, Hudson County, Bayonne, Guttenberg, Harrison, Hoboken, Jersey City, Kearny, North Bergen Twp., Secaucus, Union City, Weehawken Twp., West New York, Hunterdon County, Mercer County, Princeton, Trenton, Middlesex County, Carteret, Highland Park, New Brunswick, Perth Amboy, Sayreville, South Amboy, South River, Woodbridge Twp. Rows list various causes of death, continuing from the previous table.

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST IN THE (COUNTY FIGURES INCLUDE)

Table with 13 columns (Monmouth County, Asbury Park, Long Branch, Neptune Twp., Red Bank, Morris County, Dover, Madison, Morristown, Ocean County, Passaic County, Clifton) and 99 rows of disease categories.

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS. (PLACES WHICH FOLLOW): 1940.

Table with 16 columns (Hawthorne, Passaic, Paterson, Salem County, Salem City, Somerset County, Bound Brook, North Plainfield, Somerville, Sussex County, Union County, Cranford Twp., Elizabeth, Hillside Twp., Linden, Plainfield, Rahway, Roselle, Roselle Park, Summit, Union Twp., Westfield, Warren County, Phillipsburg) and 99 rows of disease categories.

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTY FIGURES INCLUDE

	Essex County	Belleville	Bloomfield	East Orange	Irrington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange
150. Other and unspecified conditions of childbirth and the puerperium	1							1				
151. Carbuncle and furuncle	1		1									
152. Phlegmon and acute abscess	1							1				
153. Other diseases of the skin and cellular tissue			2					2				
154. Osteomyelitis and periostitis	3		1					2				
155. Other diseases of the bones (except tuberculosis)	2		1					1				
156. Diseases of the joints and other organs of movement	4							4				
157. Congenital malformations (stillbirths not included)	63	1	2	4	6	1	4	36	1	2	2	
158. Congenital debility (cause not stated)	13	1		1				11				
159. Premature birth (cause not stated)	164	2	6	15	8	2	9	100	3	12	2	
160. Injury at birth	33	1	3	4	1		1	17	2			
161. Other diseases peculiar to the first year of life	34	2	2	1	1	1	1	20	2	1		
162. Senility	23	1	2	1	1	1	1	14	1	3		
163. Suicide by poisoning	53	3	2	13	4	1	2	45	3	2		
164. Suicide by other means	74	3	3	8	6	3	6	34	2	2		
165. Infanticide (homicide of infants under 1 year of age)												
166. Homicide by firearms	10	2		1			1	6				
167. Homicide by cutting or piercing instruments	10		1					8		1		
168. Homicide by other means	7							5		1		
169. Railway accidents (except collisions with motor vehicles)	6			1				5				
170. Motor vehicle accidents	147	11	6	10	18	6	2	10	68	2	2	1
171. Streetcar and other road transport accidents								1				
172. Water transport accidents	8			2				6				
173. Air transport accidents												
174. Accidents in mines and quarries								1				
175. Agricultural and forestry accidents								3				
176. Other accidents involving machinery	7		1	1	1			3				
177. Food poisoning	1							1				
178. Accidental absorption of poisonous gas	27		3	2		1		17		2	1	
179. Acute accidental poisoning by solids or liquids	6		1					4			1	
180. Conflagration	16			1				15				
181. Accidental burns (except conflagration)	16		1	4	1		1	8				
182. Accidental mechanical suffocation	11		3					6	1	1		
183. Accidental drowning	29		1	1			1	19	2			
184. Accidental injury by firearms	2							2				
185. Accidental injury by cutting or piercing instruments	3							1	2			
186-1. Accidental injury by fall	165	6	9	11	2	6	1	9	90	6	8	3
186-2. Accidental injury by crushing	3							2				
187. Cataclysm												
188. Injury by animals												
189. Hunger or thirst												
190. Excessive cold	2		1					1				
191. Excessive heat	2							2				
192. Lightning		1										
193. Accidents due to electric currents (except lightning)	3							3				
194. Poisoning by venomous animals												
195. Other accidents	19		1	2	1		1	10		1		
196. Deaths of military personnel during operations of war												
197. Deaths of civilians due to operations of war												
198. Legal executions												
199. Sudden death												
200. Ill-defined and unknown causes	11		8	1	1		1	2				1
TOTALS	2200	245	406	792	530	208	82	5094	209	132	398	

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS. PLACES WHICH FOLLOW: 1940.

	West Orange	Gloucester County	Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	South Amboy	South River	Woodbridge Twp.	
				1																								
				3																								
				1																								
				8																								
				1																								
				1																								
				4																								
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				18																								
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TABLE 22.—TABULATION OF DEATHS IN ATLANTIC COUNTY FOR 1946, ACCORDING TO 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	Male	Female	Male	Female	Under 1 Year	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown		
	ALL CAUSES	1682	563	177	204	55	63	7	11	17	17	48	85	72	111	280	330	375	189	31	.....	
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		
2	Dysentery	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	55	20	5	13	16	1	2	3	1	1	10	8	7	7	6	4	4	1	4	1		
7	All other forms of tuberculosis	1	1	2	2	1	2	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	Synpnea	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
10	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
11	Measles	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		
13	Other infectious or parasitic diseases	11	4	5	2	1	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2		
14	Causes and other malignant tumors	208	87	87	13	21	1	2	1	2	2	11	13	17	36	53	56	16	1	1	1		
15	Non-specified nature	12	1	7	4	4	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1		
17	Chronic rheumatism and gout	18	9	12	10	2	6	1	1	1	1	1	2	1	1	1	1	1	1	1	1		
18	Diabetes mellitus	8	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
19	Acute or chronic alcoholism	8	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
20	Accidents (excluding injuries to the head, face, neck, and chest)	13	4	8	2	4	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1		
21	Causes of the blood and other diseases, diseases of the blood, and other diseases of the spinal cord	2	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	153	45	62	12	26	1	1	1	1	1	1	3	3	8	37	38	41	20	2	.....	
23	Other diseases of the nervous system and sense organs	17	7	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
24	Diseases of the heart	431	295	385	34	36	1	1	1	1	1	2	16	15	28	80	122	126	70	1	.....	
25	Other diseases of the circulatory system	23	9	14	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
26	Pneumonia and bronchopneumonia	41	28	21	18	12	14	1	2	1	1	2	7	5	7	14	23	15	5	1	.....	
27	Pleurisy	93	28	26	21	18	12	14	1	2	1	2	7	5	7	14	23	15	5	1	.....	
28	Other diseases of the respiratory system	13	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
29	Diarrhea and enteritis	8	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
30	Appendicitis	30	14	12	1	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1		
31	Diseases of the liver and biliary passages	8	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
32	Diseases of the digestive system	32	15	9	4	4	4	4	4	4	4	1	2	2	2	2	2	2	2	2	2		
33	Nephritis	209	77	73	26	33	3	3	3	3	3	1	2	2	2	2	2	2	2	2	2		
34	Other diseases of the urinary and genital systems	14	7	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
35	Puerperal infection	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
36	Other puerperum	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
38	Congenital malformations and disability, premature birth, and diseases peculiar to the infant	34	11	9	6	8	34	8	34	8	34	3	5	1	6	5	4	2	1	4	4		
39	Senility, old age	13	4	4	1	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
40	Suicide	27	17	8	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
41	Homicide	4	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)	20	13	1	5	1	1	1	1	1	1	3	4	1	4	2	5	1	1	1	1		
43	Other accidents or accidental deaths (aircraft, automobiles, and other vehicles)	62	31	17	9	5	1	2	2	4	2	7	5	2	4	9	5	10	10	1	.....	
44	Causes of death ill-defined, unknown, or unspecified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 124,100.

Total Resident Deaths, 1,632.

Rate per 1,000 Population, 13.2.

TABULATION OF DEATHS IN ATLANTIC CITY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years		40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	949	331	303	147	168	26	31	6	6	6	8	8	28	51	49	77	198	199	198	83	16			
2	Typhoid and paratyphoid fevers																								
3	Scarlet fever																								
4	Diphtheria																								
5	Whooping cough																								
6	Diphtheria																								
7	Tuberculosis of the respiratory system																								
8	All other forms of tuberculosis	3	12	14			1	1	3				1	5	4	5	5	3	3	1					
9	Malaria																								
10	Syphilis																								
11	Smallpox	5	3	5	1	1																			
12	Measles																								
13	Typhus fever																								
14	Other infectious or parasitic diseases	9	5	5			1	2	1	2	2	2	1	6	10	14	22	26	29	29	8				
15	Cancer and other malignant tumors	118	39	48	12	19																			
16	Non-specified nature tumors or tumors of unspecified nature																								
17	Chronic rheumatism and gout	8	1	3	4	4																			
18	Diabetes mellitus	5	10	1	5	5																			
19	Chronic or acute alcoholism	21	5	9	1	1																			
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	12	4	3	1	4	2	2																	
21	Meningitis (bacterial) and diseases of the spinal cord	1																							
22	Intracranial lesions of vascular origin	86	26	31	8	21																			

23	Other diseases of the nervous system and sense organs	8	3	4	1																			
24	Diseases of the heart	233	126	98	30	29																		
25	Other diseases of the circulatory system	16	4	9	3																			
26	Bronchitis	1																						
27	Pneumonia and bronchopneumonia	62	20	8	17	17	6	7	1	1	1													
28	Other diseases of the respiratory system	7	2	2	2	1	1	2																
29	Other diseases of the digestive system	5	1	2	1	1																		
30	Appendicitis	8	1	2	1	1																		
31	Diseases of the liver and biliary passages	16	4	5	1	2																		
32	Other diseases of the digestive system	16	9	1	3	3																		
33	Nephritis	121	36	31	23	31																		
34	Other diseases of the urinary and genital systems	10	5	2	3																			
35	Puerperal infection																							
36	Other diseases of pregnancy, childbirth, and the puerperium																							
37	Diseases of the skin, cellular tissue, bones, and joints	1		1																				
38	Congenital malformations and deformities																							
39	mature birth, and diseases peculiar to the first year of life	15	1	3	6	15	15																	
40	Senility, old age	18	4	3																				
41	Homicide	10	3	6	1																			
42	Automobile accidents (all motor-driven road vehicles)	2			2																			
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted), and automobile accidents not specified	9	5	4																				
44	Causes of death ill-defined, unknown, or unspecified	40	15	13	8	4	1	1	1	1	1	1	5	3	1	4	7	4	4	8				

Estimated Population, 64,100

Total Resident Deaths, 949.

Rate per 1,000 Population, 14.8.

TABULATION OF DEATHS IN BERGEN COUNTY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 Year	Under 5 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
	ALL CAUSES	3710	1926	1665	59	60	160	196	28	23	37	97	173	160	217	588	897	817	413	64	.....	.....
1	Typhoid and paratyphoid fevers	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Plague	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	123	80	23	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Other forms of the respiratory system	13	6	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	All other forms of tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	25	14	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Influenza	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	23	13	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	546	248	293	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Nonmalignant tumors or tumors of unspecified nature	19	9	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Diabetes mellitus	7	1	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus and gout	123	46	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chronic or acute alcoholism	4	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	64	26	36	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Measles (exocentral) and diseases of the spinal cord	14	10	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intra-cranial lesions of vascular origin	265	105	155	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23	Other diseases of the nervous system and sense organs	31	20	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	1261	679	584	15	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Other diseases of the circulatory system	81	42	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Pneumonia and bronchopneumonia	142	75	53	6	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Other diseases of the respiratory system	23	12	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Diarrhea and enteritis	8	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Appendicitis	44	26	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Diseases of the liver and biliary passages	96	54	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Other diseases of the digestive system	240	118	111	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Nephritis	33	24	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Other diseases of the urinary and genital systems	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Puerperal infection	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Other diseases of pregnancy, childbirth, and the puerperium	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Diseases of the skin, cellular tissue, bones, and organs of movement	5	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of movement and debility, premature birth, and diseases peculiar to the fetus of life	125	77	44	4	3	125	125	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Senility and age	53	42	20	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility and age	9	5	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Automobile accidents (all motor-driven road vehicles)	61	43	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Accidental deaths (suicide, homicide, and automobile accidents excepted)	130	84	42	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Causes of death ill-defined, unknown, or unspecified	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 410,800.

Total Resident Deaths, 8,710.

Rate per 1,000 Population, 9.0.

TABULATION OF DEATHS IN BURLINGTON COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown		
1	ALL CAUSES	554	487	59	40	57	69	14	5	13	27	45	27	61	162	224	280	178	35	.....	
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Alberculosis of the respiratory system	40	21	12	3	4	1	1	1	1	6	8	2	2	7	0	4	.....	.....	.....
8	All other forms of tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Influenza	10	4	3	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	9	5	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	140	57	76	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Nonmalignant tumors or tumors of uncertain nature	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chorea, chorea minor, and convulsions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus	25	10	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chronic or acute alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	20	7	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Meningitis	7	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intra-cranial lesions of vascular origin	105	55	44	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Other diseases of the nervous system and sense organs	8	2	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	366	188	150	18	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Other diseases of the circulatory system	26	19	14	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Erysipelas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia	41	22	15	4	13	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Other diseases of the respiratory system	4	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Diarrhea and enteritis	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Dysentery	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Dysentery of the liver and biliary passages	13	10	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other diseases of the digestive system	133	62	64	12	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Nephritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems in action	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Systemic infection	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Complications and diseases peculiar to the mature birth and diseases peculiar to the first year of life	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age	29	13	9	5	2	29	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	6	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Automobile accidents	12	8	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	36	24	9	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Death ill-defined, unknown, or unspecified	50	28	19	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 97,100.

Total Resident Deaths, 1,140.

Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN CAMDEN COUNTY FOR 1940, 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		Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
		2872	1404	1204	146	118	123	144	19	24	28	82	110	103	156	439	659	698	357	53		
1	Typhoid and paratyphoid fevers																					
2	Plague																					
3	Scarlet fever																					
4	Whooping cough	2	1	1																		
5	Diphtheria																					
6	Other diseases of the respiratory system	85	44	25	12	4	1	1	1	3	16	13	5	4	14	20	1					
7	Other forms of tuberculosis	7	3	1	1	2																
8	Malaria																					
9	Syphilis	21	12	6	3	1	1		2	1												
10	Influenza	21	8	6	3	1	1															
11	Smallpox																					
12	Measles																					
13	Scarlet fever																					
14	Other infectious or parasitic diseases	11	6	4	2	1	1															
15	Cancer and other malignant tumors	366	179	168	6	13	1	1	1	3	4	3	20	22	86	108	92	22	4			
16	Nonmalignant tumors or tumors of unspecified nature	9	4	3	2																	
17	Rheumatism and gout	5	3	2																		
18	Diseases of the heart	90	31	57	2																	
19	Chronic or acute alcoholism	2	2																			
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	24	10	12	1	1	1	1	1	1	4	2		2	7	4	1					
21	Meningitis (meningococcal) and diseases of the meninges	5	3	2																		
22	Intracranial lesions of vascular origin	219	91	107	9	12	1	1														

23	Other diseases of the nervous system and sense organs	13	7	4	2	2	2	2														
24	Diseases of the heart	94	462	386	44	32	1															
25	Other diseases of the circulatory system	61	24	29	6	2	1															
26	Bronchitis	148	69	52	13	14	25	26	3	1	3	7	2	7	18	24	82	18	5			
27	Pneumonia and bronchopneumonia	19	11	8			4	4	1													
28	Other diseases of the respiratory system	13	6	4			3	5	6	1	1	1	1	1	2	1	1	1	1			
29	Other diseases of the digestive system	15	7	5	3																	
30	Appendicitis	42	18	21	6	2	2	2	1	1	1	4	4	3	9	13	6	1				
31	Diseases of the liver and biliary passages	32	18	16	6	2	2	1	1	1	1	7	3	5	10	8	5					
32	Other diseases of the digestive system	334	147	148	21	18																
33	Nephritis	40	22	14	2	2	1	1	1	1	1	2	3	1	8	5	10	8				
34	Other diseases of the urinary and genital systems	7																				
35	Puerperal infection	2																				
36	Other diseases of pregnancy, childbirth, and the puerperium	3	2	1																		
37	Diseases of the cellular tissue, bones, and organs of movement	78	35	35	3	5	75	78														
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	39	29	10																		
39	Senility, old age	41																				
40	Suicide	4	4																			
41	Homicide	68	49	12			2	1	5	4	5	6	5	3	10	9	8	2				
42	Automobile accidents (all motor-driven road vehicles)	103	54	42	7		4	11	6	3	3	6	8	6	4	16	13	15	9	3		
43	Other accident or accidental death (aircraft, fire, marine, automobile accidents excepted)	2	1	1																		
44	Causes of death ill-defined, unknown, or unspecified																					

Total Resident Deaths, 2,872

Estimated Population, 255,800.

Rate per 1,000 Population, 11.2.

TABULATION OF DEATHS IN CAPE MAY COUNTY FOR 1940, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods										90 Years and Over							
		All Deaths		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years		45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	64	6
		Male	Female																				
1	ALL CAUSES	450	219	161	25	25	10	11	21	1	9	11	9	10	18	56	112	121	121	64	6	.....
2	Typhoid and paratyphoid fevers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Plague	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Scarlet fever	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Tuberculosis of the respiratory system	6	1	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	All other forms of tuberculosis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	Sinuositis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors	48	16	29	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Nonmalignant tumors or tumors of uncertain origin	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus	20	6	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chronic or acute alcoholism	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Avitaminosis, other general diseases, diseases of the blood, and chronic poisonings	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Menigitis (menococcal) and diseases of the spinal cord	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Intracranial lesions of vascular origin	45	18	21	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

23	Other diseases of the nervous system and sense organs	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart	143	90	45	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Other diseases of the circulatory system	10	6	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Bronchitis	1	11	10	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and pleuropneumonia	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Diseases of the respiratory system	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Dysentery and enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Diseases of the liver and biliary passages	11	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other diseases of the digestive system	5	22	22	10	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Nephritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Other diseases of the urinary and genital systems	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Puerperal infection	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	7	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Suicide, other	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Homicide	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles)	7	2	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Other accidents (accidental deaths (suicide, homicide, and automobile accidents excepted))	19	13	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Causes of death ill-defined, unknown, or unspecified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 28,900

Total Resident Deaths, 430.

Rate per 1,000 Population, 14.9.

TABULATION OF DEATHS IN ESSEX COUNTY FOR 1940, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods											90 Years and Over			
		All Deaths		Male	Female	Male	Female	Under 1 Year	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years		60 to 69 Years	70 to 79 Years	80 to 89 Years
		Male	Female																		3083 5288 3996 6223 15683 211019133 921 142	Unknown
1	ALL CAUSES	9200	4322 3824 494	520 406 487 34	60 120	3083 5288 3996 6223 15683 211019133 921 142	Unknown													
2	Typhoid and paratyphoid fevers	1	1			1														
3	Plague																			
4	Whooping cough	4	3	1	2	4														
5	Diphtheria	42	37	75 92	1 4	1	5 25													
6	Tuberculosis of the respiratory system	41	6 11 13	2 7	1 2	2	1 2													
7	All other forms of tuberculosis	114	52 11 31	20 1	1 1	1	1 1													
8	Scarlatina	26	9 14	2 1	5 1	1	1													
9	Influenza	5	2	1	5	6														
10	Smallpox	1	1		1	1														
11	Measles	44	21 16	2 3	1 2	1	1													
12	Typhus fever	1294	605 609	39 41	4 4	1 7														
13	Other infectious or parasitic diseases	45	9 29		1 2	1	1													
14	Other infectious or parasitic diseases specified nature	14	4		1	1														
15	Other infectious or parasitic diseases specified nature	325	95 201	11 18	1 1	1	1													
16	Nonmalignant tumors or tumors of unspecified nature	18	11 2	4 1																
17	Chronic rheumatism and gout	129	50 67	3 9	14 7	11 7														
18	Diabetes mellitus	18	7 8	3 3																
19	Arteriosclerosis	129	220 379	25 25	1 1	1 1														
20	Acute alcoholism	18	11 2	4 1																
21	Other general diseases, diseases of the blood, and poisonings	129	50 67	3 9	14 7	11 7														
22	Meningitis (nonmeningococcal) and diseases of the spinal cord	18	7 8	3 3																
23	Intracranial lesions of vascular origin	719	220 379	25 25	1 1	1 1														
24	Other diseases of the nervous system and sense organs	74	30 37	3 4	8 11	1 2	2													
25	Diseases of the heart	3030	1634 1276	98 123	2 4	3 7	15													
26	Other diseases of the circulatory system	199	55 91	17 2	8	2	2													
27	Pneumonia and bronchopneumonia	259	152 105	26 16	32 44	2 2	2 2													
28	Other diseases of the respiratory system	61	35 20	2 2	3 4	1 2	2													
29	Diarrhea and enteritis	33	14 11	3 5	16 19	1 3	3 3													
30	Appendicitis	118	65 44	5 7	1 3	1 1	1 1													
31	Diseases of the liver and biliary passages	139	120 58	9 12	5 7	1 2	6 6													
32	Diseases of the digestive system	585	252 257	33 33	3 3	1 1	3 3													
33	Nephritis	111	64 30	7 10	8 12	1 1	3 3													
34	Other diseases of the urinary and genital systems	17	9	5	1	1	1													
35	Puerperal infection	21	16		5		2													
36	Other diseases of pregnancy, childbirth, and the puerperium	15	7 6	1 1	2 3		2													
37	Diseases of the cellular tissue, bones, and organs of movement	300	149 97	28 35	307 309															
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	162	111 46	2 3	2	1	1													
39	Senility, old age	27	11 5	8 3	2	1	1													
40	Suicide	147	100 35	9 3	2 3	2 11	2 11													
41	Homicide	327	180 105	32 40	10 23	9 8	12													
42	Automobile accidents (all motor-driven road vehicles)	11	7 1	1	3															
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	11	7 1	1	3															
44	Causes of death ill-defined, unknown, or unspecified	11	7 1	1	3															

Rate per 1,000 Population, 11.0.

Total Resident Deaths, 9,200.

Estimated Population, 837,400

TABULATION OF DEATHS IN EAST ORANGE CITY, FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
	ALL CAUSES	792	359	389	36	38	28	32	1	2	7	21	33	28	41	112	215	181	92	26	
1	Typhoid and paratyphoid fevers	1	1	1								1									
2	Plague																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria	3	12	7	6	3	1	1				5	6	2	4	6	2	2			
6	Tuberculosis of the respiratory system	58	12	7	6	3	1	1				2	1								
7	All other forms of tuberculosis	1	1	1																	
8	Malaria	2	1	1																	
9	Syphilis	2	1	1																	
10	Stenosis	4	1	1																	
11	Septicemia	1	1	1																	
12	Measles																				
13	Typhus fever	2	1	1																	
14	Other infectious or parasitic diseases	125	54	64	5	2						2	4	3	11	28	41	27	7	1	
15	Cancer and other malignant tumors	1																			
16	Nonmalignant tumors or tumors of uncertain nature	4	3	3																	
17	Chronic rheumatism and gout	27	8	16	1	3															
18	Diabetes mellitus	1	1	1																	
19	Chronic or acute alcoholism	8	2	4																	
20	Avitaminoses, other general diseases, diseases of the nervous system, and diseases of the spinal cord	2	1	1																	
21	Measles	8	2	4																	
22	Intracranial lesions of vascular origin	76	32	38	1	5															
23	Other diseases of the nervous system and sense organs	4	3	3																	
24	Disease of the heart	258	133	111	5	9															
25	Other diseases of the circulatory system	22	8	11	2	1															
26	Bronchitis	27	10	14	2	1															
27	Pneumonia and bronchopneumonia	3	1	1																	
28	Other diseases of the respiratory system	5	3	2																	
29	Arteriosclerosis	18	7	10																	
30	Arteritis and enteritis	27	17	7	1	2															
31	Diseases of the liver and biliary passages	46	14	28	1	2															
32	Other diseases of the digestive system	7	4	2																	
33	Nephritis	1																			
34	Other diseases of the urinary and genital systems	1																			
35	Puerperal infection	1																			
36	Other diseases of pregnancy, childbirth, and the puerperium	5	2	3																	
37	Diseases of the skin, cellular tissue, bones, and joints	24	15	6	2	1	24														
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	31	15	6																	
39	Senility, old age	3	2	1																	
40	Accidents	10	3	5	2																
41	Fire	26	12	10	3	1	2	4	1	1											
42	Automobile accidents (all motor-driven road vehicles)	1																			
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1																			
44	Unspecified	1																			

Estimated Population, 69,000.

Total Resident Deaths, 792.

Rate per 1,000 Population, 11.5.

TABULATION OF DEATHS IN IRVINGTON FOR 1940, 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	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
																						530	260	270	270	20	23	21	1	2	20	30	18	43	90	129	111	53	81
1	ALL CAUSES	530	260	270	270			20	23	21	1	2	20	30	18	43	90	129	111	53	81	
2	Typhoid and paratyphoid fevers																					
3	Scarlet fever																					
4	Whooping cough	1						1														
5	Diphtheria																					
6	Tuberculosis of the respiratory system	14	9	5								4	4	1	1	3	1	3	1	3	1	
7	All other forms of tuberculosis																					
8	Measles																					
9	Syphilis	5	3	2																		
10	Influenza	1	1																			
11	Smallpox																					
12	Respiratory fever																					
13	Other infectious or parasitic diseases	2																				
14	Cancer and other malignant tumors	99	43	56				1				1		6	4	8	19	30	22	8		
15	Nonmalignant tumors or tumors of unspecified nature	2																				
16	Chorea and acute alcoholism	21	6	15																		
17	Diseases of the circulatory system	1																				
18	Diseases of the respiratory system	2																				
19	Chronic or acute alcoholism	1																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	9	5	4				1	1	1			1	2		1	1	2				
21	Mental diseases (neuroses, psychoses, and dementia)	2																				
22	Intra-cranial lesions of vascular origin	49	21	28																		

23	Other diseases of the nervous system and sense organs	6	1	4																		
24	Diseases of the heart	156	77	79				1	1				1	3	6	11	27	36	40	26	2	
25	Other diseases of the circulatory system	15	7	8																		
26	Pneumonia and bronchopneumonia	14	8	6																		
27	Other diseases of the respiratory system	2	1	1																		
28	Diarrhea and enteritis	2	1	1																		
29	Appendicitis	11	6	5																		
30	Diseases of the liver and biliary passages	10	4	6																		
31	Diseases of the digestive system	10	4	6																		
32	Nephritis	3																				
33	Other diseases of the urinary and genital systems	34	16	18																		
34	Puerperal infection	6	4	2																		
35	Other diseases of pregnancy, childbirth, and puerperium																					
36	Diseases of the skin, cellular tissue, bones, and organs of movement																					
37	Congenital malformations and debility, premature birth, and diseases peculiar to the newborn																					
38	Sundily, old age	17	10	7																		
39	Suicide	10	7	3																		
40	Homeicide																					
41	Automobile accidents (all motor-driven road vehicles)	18	12	6																		
42	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	13	12	1																		
43	Causes of death ill-defined, unknown, or unspecified	1	1																			
44																						

Estimated Population, 55,500

Total Resident Deaths, 530.

Rate per 1,000 Population, 9.6.

TABULATION OF DEATHS IN NEWARK 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	5094	2393	1965	380	366	239	292	20	41	79	197	341	241	379	917	1146	976	417	49		
2	Typhoid and paratyphoid fevers																					
3	Plague																					
4	Sandwich fever																					
5	Whooping cough																					
6	Diphtheria																					
7	Other forms of the respiratory system	911	129	60	69	3	5	22				54	80	38	28	61	21	13	4	1		
8	All other forms of tuberculosis	30	5	10	12	2	1	2				7	7	2	2	1						
9	Malaria	88	38	7	26	17	1	4				1	13	6	13	23	15	6	2			
10	Influenza	10	4	4	1	1	4	1				1										
11	Smallpox																					
12	Scarlet fever	5	2	2	1	1	5															
13	Typhus fever	28	15	10	2	1						3	6	2	4	3	5	2	5			
14	Other infectious or parasitic diseases	659	327	277	27	28	1					10	17	35	62	166	206	119	36			
15	Cancer and other malignant tumors																					
16	Nonmalignant tumors or tumors of unspecified nature	26	6	16	4	1						2	9	6	6	2						
17	Chronic rheumatism and gout	182	53	112	6	7						1	10	5	7	1						
18	Diabetic mellitus	14	8	4	1	1						4	2	4	3	7	49	63	47	17		
19	Chronic or acute alcoholism																					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	68	28	35	2	3	5	7	5	6	4	5	6	3	3	14	7	7	1			
21	Meningitis (menocingococcal) and diseases	5	1	9	2																	
22	Intracranial lesions of vascular origin	363	132	180	17	12						2	5	6	16	62	104	109	60	4		
23	Other diseases of the nervous system and sense organs	48	21	21	3	6	9	1	1	2		7	8		2	6	5	7				
24	Diseases of the heart	1688	838	693	73	84	2	3	3	6	9	29	88	69	106	318	481	415	181	21		
25	Other diseases of the circulatory system	116	54	44	11	11	2	5				1	8		5	14	13	21	2			
26	Pneumonia and bronchopneumonia	144	67	49	17	11	16	23	1	3	1	3	11	9	18	16	22	17	16	4		
27	Other diseases of the respiratory system	39	24	12	1	2	2	1				2	4	4	5	4	10	2	4			
28	Diarrhea and enteritis	26	10	7	3	5	13	14				1	6	2	5	2						
29	Appendicitis	1	0	23	2	6	1	3	2	4		12	13	7	12	18	23	15	6			
30	Other diseases of the liver and biliary passages	105	57	34	7	7	2	8	1	2	5	4	10	5	14	25	13	15	6			
31	Other diseases of the digestive system	281	120	114	26	21						6	7	9	17	44	62	90	37	6		
32	Nephritis																					
33	Other diseases of the urinary and genital systems	67	34	17	6	10						3	8	4	11	10	14	11	3			
34	Eucytoplasmic infections	14		7		7						8	4	1	1							
35	Other diseases of pregnancy, childbirth, and the puerperium	16		12		4						6	6	2	1							
36	Diseases of the skin, cellular tissue, bones, and organs of movement	10	5	3	1	1	2	3														
37	Congenital malformations and debility, premature birth, and diseases peculiar to the fetus and infant	184	77	58	23	26	182	184														
38	Senility, old age	14	5	7	2																	
39	Homeicide	79	59	16	2	2						6	14	9	12	20	8	9				
40	Automobile accidents (all motor-driven road vehicles)	19	5	5	6	3						1	5	4	1	5	4	1				
41	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	68	53	7	7	1	2					1	3	11	4	4	10	5	16	11		
42	Causes of death ill-defined, unknown, or unspecified	196	109	83	27	7	6	13	5	6	8	11	16	16	13	32	30	30	13	4		
43	Causes of death ill-defined, unknown, or unspecified	2	1	1		1																

Estimated Population, 429,800.

Total Resident Deaths, 5,094.

Rate per 1,000 Population, 11.2.

TABULATION OF DEATHS IN GLOUCESTER COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
1	ALL CAUSES	308	388	45	39	68	83	5	10	7	30	42	31	47	126	186	197	127	17		
2	Typhoid and paratyphoid fevers	1	1																		
3	Plague																				
4	Scarlet fever																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	20	11	3	4	1					2	3	5	6	3	1					
7	All other forms of tuberculosis	1	1																		
8	Malaria	1	1																		
9	Infantile paralysis	4	2	1	3	1															
10	Polio	6	4	2	1	1															
11	(Smallpox)																				
12	Measles	1	1																		
13	Typhus fever	1	1																		
14	Other infectious or parasitic diseases	12	6	1	1	1	1	1	1	1	3	4	4	6	28	26	36	16	1		
15	Neoplasms (benign)	124	62	66	1																
16	Neoplasms (malignant) tumors of unspecified nature	2	2																		
17	Chronic rheumatism and gout	2	2																		
18	Diabetes mellitus	25	8	13	1	3									4	6	10	2			
19	Other diseases of the circulatory system	1	1																		
20	Atherosclerosis and other general diseases of the blood, and chronic poisonings	14	5	8		1	2	2			2	1	1	2	2	1	2	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	2																		
22	Intra-cranial lesions of vascular origin	62	24	47	7	1	1	1	1	1	1	1	3	4	15	19	20	16	1		
23	Other diseases of the nervous system and sense organs	7	5	119	9	2	3														
24	Diseases of the heart	289	164	7	7																
25	Other diseases of the circulatory system	16	7																		
26	Coronary atherosclerosis	42	16	7	3	14	19														
27	Pneumonia and bronchopneumonia	6	2	4	1	1															
28	Other diseases of the respiratory system	8	3	3	1	4	4														
29	Diarrhea and enteritis	7	6	1																	
30	Appendicitis	10	5																		
31	Diseases of the liver and biliary passages	1	1																		
32	Diseases of the digestive system	10	5																		
33	Nephritis	83	33	44	4	2															
34	Other diseases of the urinary and genital systems	6	3	3																	
35	Puerperal infection	4	4																		
36	Other diseases of pregnancy, childbirth, and puerperium	1	1																		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1																		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	40	23	13	3	40	40														
39	Suicide, old age	8	8																		
40	Suicide	2	1																		
41	Homicide	1	1																		
42	Automobile accidents (all motor-driven road vehicles)	28	16	6	5	1	2	1	1	2	3	5		1	7	5	1				
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	42	26	11	5	1	4	1	4	1	2	4	1	6	1	4	9	2	3		
44	Causes of death ill-defined, unknown, or unspecified																				

Estimated Population, 72,300

Total Resident Deaths, 908.

Rate per 1,000 Population, 12.6.

TABULATION OF DEATHS IN HUDSON COUNTY FOR 1940, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	All Deaths	White		Colored		Age Periods												90 Years and Over	Unknown		
		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years			80 to 89 Years	
1	ALL CAUSES	6864	3633	2932	133	116	298	367	48	47	63	230	381	330	469	1300	1646	1407	529	48	
2	Typhoid and paratyphoid fevers	2	2									1									
3	Dysentery	4	2																		
4	Scarlet fever	2																			
5	Whooping cough	18	13	5	2	1	2	1	8	1											
6	Diphtheria	309	192	76	25	16	1	7	8	1											
7	Tuberculosis of the respiratory system	16	3	9	2	1	1	2	2	1											
8	Malta fever	57	30	11	5	2	1	1	1	1											
9	Syphilis	19	10	9	5	2	1	1	1	1											
10	Influenza	12	6	3	3	1	1	1	1	1											
11	Smallpox	1	1																		
12	Measles	36	23	11	7	3	1	1	1	1											
13	Scarlet fever	1002	523	455	11	13	1	1	1	4											
14	Other infectious or parasitic diseases	28	8	18	1	1															
15	Cancer and other malignant tumors	221	68	166	2	1															
16	Nonmalignant tumors or tumors of unspecified nature	11	10																		
17	Chronic rheumatism and gout	21	10																		
18	Diphtheria	112	46	60	2	4	3	8	7	6	7	8	11	7	11	15	20	8	3	1	
19	Chronic or acute alcoholism	97	15	15	5	3	4	6	1	2	1	3	1	3	1	2	5	5	1	1	
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	497	208	270	6	13															
21	Meningitis (nonmeningococcal) and diseases of the spinal cord																				
22	Intracranial lesions of vascular origin																				
23	Other diseases of the nervous system and sense organs	44	26	18			2	3	1	2											
24	Diseases of the heart	2503	1353	1081	30	34															
25	Other diseases of the circulatory system	113	48	61	3	1															
26	Bronchitis	232	122	110	10	9															
27	Other diseases of the respiratory system	284	152	130	10	9	47	3	1	2											
28	Other diseases of the respiratory system	36	24	10	2	1															
29	Diarrhea and enteritis	38	18	16	1	1	22	25	1	1											
30	Appendicitis	70	40	29	1	1	7	5	6	4											
31	Diseases of the liver and biliary passages	25	15	6	2	1	1	1	1	1											
32	Diseases of the digestive system	158	102	60	2	1	2	4	2	1											
33	Nephritis	334	172	166	11	5	1	2													
34	Other diseases of the urinary and genital systems	68	41	24	1	2															
35	Puerperal infection	8	7	1																	
36	Other diseases of pregnancy, childbirth, and the puerperium	9																			
37	Diseases of the skin, cellular tissue, bones, and organs of movement	13	8	5			1	1	2												
38	Congenital malformations and debility, premature birth, and diseases peculiar to the female sex	208	112	87	4	5	1	1	2												
39	Senility, old age	9	4	5			5	205	206	2											
40	Suicide	838	66	17																	
41	Homicide	9	4	2	3																
42	Automobile accidents (all motor-driven road vehicles)	78	58	17	3		2	5	2	7	11	14	1	6	9	12	8	1			
43	Other accidents or accidental deaths (suicide, homicide, and automobile accidents excepted)	261	175	79	6	1	3	8	7	4	9	30	26	21	24	39	38	32	22	1	
44	Causes of death ill-defined, unknown, or unspecified	3	3																		

Estimated Population, 652,000.

Total Resident Deaths, 6,864.

Rate per 1,000 Population, 10.5.

TABULATION OF DEATHS IN HOBOKEN FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
	ALL CAUSES	383	262	3	3	17	21	6	9	5	6	20	30	35	48	143	153	132	87	3		
1	Typhoid and paratyphoid fevers																					
2	Plague																					
3	Scarlet fever																					
4	Diphtheria																					
5	Whooping cough																					
6	Tuberculosis of the respiratory system	3	1																			
7	All other forms of tuberculosis	28	19	2	1																	
8	Malaria																					
9	Syphilis																					
10	Intestinal diseases																					
11	Stomach																					
12	Menstrual																					
13	Typhus fever																					
14	Other infectious or parasitic diseases	2	2																			
15	Neoplasms and other malignant tumors	71	44	27																		
16	Neoplasms and other malignant tumors of unspecified nature	3	1																			
17	Chronic rheumatism and gout	2	1	1																		
18	Diabetes mellitus	16	7	9																		
19	Chronic or acute alcoholism	3	2																			
20	Accidents, other general diseases, diseases of the circulatory system, and chronic poisonings	13	6	7																		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	3	2	1																		
22	Intracranial lesions of vascular origin	34	15	19																		

23	Other diseases of the nervous system and sense organs	4	1	3																		
24	Diseases of the heart	202	151	110																		
25	Other diseases of the circulatory system	2	1	1																		
26	Pneumonia and bronchopneumonia	35	31	4																		
27	Other diseases of the respiratory system	3	3	2																		
28	Diarrhea and enteritis	2	2	2																		
29	Appendicitis	5	2	2																		
30	Diseases of the liver and biliary passages	23	23	5																		
31	Diseases of the digestive system	33	18	15																		
32	Neoplasms of the digestive system	30	14	16																		
33	Neoplasms of the urinary and genital systems	9	5	4																		
34	Other diseases of the urinary and genital systems																					
35	Puerperal infection																					
36	Other diseases of pregnancy, childbirth, and puerperium	1		1																		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	3																			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the immature years of life	15	4	11																		
39	Softly, stillborn	8	8																			
40	Suicide																					
41	Homicide																					
42	Automobile accidents (all motor-driven road vehicles)	8	6	2																		
43	Other motor-driven road vehicles (suicide, homicide, and automobile accidents excluded)	33	23	9																		
44	Causes of death ill-defined, unknown, or unspecified	2	2																			

Estimated Population, 50,100.

Total Resident Deaths, 651.

Rate per 1,000 Population, 13.0.

TABULATION OF DEATHS IN JERSEY CITY FOR 1916, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International Cause of Death	All Deaths		White		Colored		Age Periods														
	Number	Rate per 1,000	Male		Female		Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
			Male	Female	Male	Female															
ALL CAUSES																					
1 Typhoid and paratyphoid fevers	3343	1710	1412	116	105	100	200	15	21	33	115	194	180	233	609	802	600	239	22	.....	.....
2 Sague	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 Scarlet fever	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 Whooping cough	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 Diphtheria	7	5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 Tuberculosis of the respiratory system	169	96	46	19	14	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7 All other forms of tuberculosis	7	1	3	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8 Malaria	23	13	6	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9 Typhus	12	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 Typhoid	12	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11 Smallpox	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 Menstrual	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 Other infectious or parasitic diseases	36	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 Cancer and other malignant tumors	513	266	236	11	11	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 Nonspecific nature of tumors	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 Chronic rheumatism and gout	12	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 Diabetes mellitus	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 Other general diseases	10	39	76	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 Avitaminosis	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 Other chronic poisonings	51	20	25	2	4	3	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 Meningitis (nonmeningococcal) and diseases of the spinal cord	10	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Intracranial lesions of vascular origin	241	106	137	6	13	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23 Other diseases of the nervous system and sense organs	24	16	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24 Diseases of the heart	1178	618	502	26	32	1	2	1	1	1	6	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
25 Other diseases of the circulatory system	66	26	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26 Bronchitis and bronchopneumonia	14	69	55	9	8	24	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27 Other diseases of the respiratory system	17	11	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28 Diarrhea and enteritis	17	5	10	1	1	5	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29 Appendicitis	23	14	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30 Diseases of the liver and biliary passages	23	14	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31 Diseases of the digestive system	65	36	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32 Nephritis	155	76	64	11	4	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33 Other diseases of the urinary and genital systems	54	22	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34 Other diseases of pregnancy, childbirth, and the puerperium	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35 Other diseases of the skin, cellular tissue, bones, and organs of movement	8	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36 Congenital malformations and debility, present at birth and diseases peculiar to the first year of life	114	64	41	4	5	114	114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37 Senility, old age	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38 Suicide	39	30	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39 Homicide	7	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40 Accidents (all motor-driven road vehicles)	32	22	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41 Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	121	78	37	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42 Causes of death ill-defined, unknown, or unspecified	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 301,200.

Total Resident Deaths, 3,343.

Rate per 1,000 Population, 11.1.

TABULATION OF DEATHS IN UNION CITY FOR 1946, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods															
		Male	Female	Male	Female	Male	Female	Under 1 Year	Under 5 Years	6 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
	ALL CAUSES	603	267	336	267			28	27	5	3	4	12	31	19	36	121	143	164	47	1		
1	Typhoid and paratyphoid fevers																						
2	Plague																						
3	Scarlet fever																						
4	Whooping cough																						
5	Diphtheria	4	2																				
6	Acute infections of the respiratory system	32	26																				
7	All other forms of tuberculosis	4	1																				
8	Malaria																						
9	Syphilis																						
10	Influenza	5	4																				
11	Smallpox	2																					
12	Measles																						
13	Scarlet fever																						
14	Other infectious or parasitic diseases	75	45																				
15	Cancer and other malignant tumors	2																					
16	Nonmalignant tumors or tumors of unspecified nature	19	8																				
17	Chronic rheumatism and gout																						
18	Diabetic mellitus																						
19	Chronic or acute alcoholism	8	2																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	3																					
21	Meningitis (meningococcal) and diseases of the meninges	56	25																				
22	Intra cranial lesions of vascular origin																						

23	Other diseases of the nervous system and sense organs	2	1																				
24	Diseases of the heart	248	188																				
25	Other diseases of the circulatory system	7	3																				
26	Pneumonia and bronchitis	17	7																				
27	Other diseases of the respiratory system	4	2																				
28	Diarrhea and enteritis	4	2																				
29	Appendicitis	4	3																				
30	Diseases of the liver and biliary passages	14	10																				
31	Diseases of the digestive system	32	16																				
32	Nephritis																						
33	Other diseases of the urinary and genital systems	5	2																				
34	Puerperal infection																						
35	Other diseases of pregnancy, childbirth, and puerperium	1																					
36	Diseases of the skin, cellular tissue, bones, and organs of movement																						
37	Congenital malformations and debility, premature birth, and diseases peculiar to the fetus and neonate	12	7																				
38	Scalds and burns	7	6																				
39	Stuicide																						
40	Homicide																						
41	Automobile accidents (all motor-driven road vehicles)	6	5																				
42	Accidental deaths (miscellaneous)																						
43	Accidental deaths (miscellaneous) and automobile accidents excepted	17	10																				
44	Causes of death ill-defined, unknown, or unspecified																						

Estimated Population, 56,200. Total Resident Deaths, 603. Rate per 1,000 Population, 10.7.

TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	508	290	212	2	4	16	22	8	5	7	12	14	5	24	61	110	140	91	14		
1	Typhoid and paratyphoid fevers																					
2	Scarlet fever																					
3	Diphtheria																					
4	Whooping cough																					
5	Diphtheria																					
6	Other diseases of the respiratory system	11	5	6								4	1		2	1	1	1	1			
7	Tuberculosis of the respiratory system																					
8	All other forms of tuberculosis																					
9	Scarlet fever	1	1																			
10	Influenza	1	1																			
11	Smallpox	5	2	3																		
12	Measles																					
13	Other infectious or parasitic diseases																					
14	Other infectious or parasitic diseases																					
15	Cancer and benign tumors of unspecified nature	54	26	27								1	1		2	11	11	17	9	1		
16	Nonmalignant tumors																					
17	Chronic rheumatism and gout	1	1																			
18	Diabetes mellitus	18	10	8																		
19	Chronic alcoholism	1	1																			
20	Arteriosclerosis, other diseases, diseases of the blood, and chronic diseases of the spinal cord	2	1	1																		
21	Menstritis (nonmeningococcal) and diseases of the spinal cord	3	3									1	1									
22	Intra-cranial lesions of vascular origin	63	33	30								1	2		2	9	16	20	1			

23	Other diseases of the nervous system and	7	4	3																		
24	Diseases, organs, heart	18	11	6																		
25	Other diseases of the circulatory system	2	2	1																		
26	Bronchitis	2	1	1																		
27	Pneumonia and bronchopneumonia	20	14	6																		
28	Other diseases of the respiratory system	3	2	1																		
29	Diarrhea and enteritis	6	4	2																		
30	Disorders of the liver and biliary passages	4	2	2																		
31	Diseases of the liver and biliary passages	8	4	4																		
32	Other diseases of the digestive system	29	10	18																		
33	Nephritis																					
34	Other diseases of the urinary and genital system	10	8	2																		
35	Systemic infection																					
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1																			
37	Diseases of the skin, cellular tissue, bones, and organs of movement																					
38	Constitutional diseases peculiar to the mature birth and diseases peculiar to the first year of life	10	6	2																		
39	Senility, old age	4	2	2																		
40	Suicide	12	9	3																		
41	Automobile accidents (all motor-driven road vehicles)	1	1																			
42	Automobile accidents (all motor-driven road vehicles)	18	14	3																		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	18	9	9																		
44	Causes of death ill-defined, unknown, or unspecified	1	1																			

Estimated Population, 36,800.

Total Resident Deaths, 508

Rate of 1,000 Population, 13.8.

TABULATION OF DEATH IN MERCER COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown			
1	ALL CAUSES	2228	1167	888	102	71	105	124	17	20	81	87	83	135	397	486	494	357	30	30	30	30	30	30	30	30	
2	Typhoid and paratyphoid fevers	2	1	1	1	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	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	1	1	1	1	
5	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6	Tuberculosis of the respiratory system	117	69	37	16	5	1	3	3	1	23	16	9	8	3	16	6	3	3	3	3	3	3	3	3	3	3
7	All other forms of tuberculosis	10	3	1	5	1	1	3	3	1	6	6	3	5	1	5	2	2	2	2	2	2	2	2	2	2	2
8	Syphilis	35	13	7	12	4	1	1	1	2	2	2	2	5	1	5	3	1	1	1	1	1	1	1	1	1	1
9	Influenza	11	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Shingles	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
11	Measles	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
12	Mumps	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
13	Other infectious or parasitic diseases	7	4	3	1	1	1	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	202	168	110	9	6	5	6	1	1	5	9	17	20	80	74	68	15	1	1	1	1	1	1	1	1	1
15	Nonmalignant tumors or tumors of unspecified nature	11	3	6	2	2	1	1	1	2	2	2	2	1	4	1	2	1	1	1	1	1	1	1	1	1	1
16	Cerebral rheumatism and gout	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Dyspeptic conditions	79	28	51	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Chronic or acute alcoholism	9	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	30	9	17	4	4	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Menstrual disorders	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
21	Menigitis (meningococcal) and diseases of the central nervous system	105	6	5	5	5	5	1	1	1	2	5	3	11	25	50	45	22	1	1	3	1	1	1	1	1	1
22	Intracranial lesions of vascular origin	169	69	80	5	5	5	1	1	1	2	1	3	11	11	25	50	45	22	1	1	1	1	1	1	1	1
23	Other diseases of the nervous system and sense organs	22	10	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	718	386	302	16	14	1	1	1	2	3	7	18	37	117	187	204	121	16	3	3	3	3	3	3	3	3
25	Other diseases of the circulatory system	47	24	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Pneumonia and bronchopneumonia	102	44	46	5	7	17	23	5	2	4	1	3	2	18	31	11	2	2	2	2	2	2	2	2	2	2
27	Other diseases of the respiratory system	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Diarrhea and enteritis	7	3	4	1	4	4	4	4	4	1	2	1	2	5	2	2	1	1	1	1	1	1	1	1	1	1
29	Appendicitis	15	9	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Disorders of the liver and biliary passages	11	5	6	1	1	1	1	1	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	36	18	16	2	1	1	1	1	1	2	3	5	6	7	9	6	1	1	1	1	1	1	1	1	1	1
32	Nephritis	183	99	69	8	7	1	1	1	1	2	5	8	10	29	34	61	38	2	2	2	2	2	2	2	2	2
33	Other diseases of the urinary and genital systems	22	14	6	2	2	2	2	2	2	2	2	1	1	4	3	5	5	1	1	1	1	1	1	1	1	1
34	Puerperal infection, pregnancy, childbirth, and the puerperium	8	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
35	Diseases of the skin, cellular tissue, bones and organs of movement	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
36	Congenital malformations and diseases peculiar to the mature birth, life	79	38	25	6	4	71	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
37	Senility, old age	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Suicide	23	20	3	1	1	1	1	1	1	3	4	2	1	8	4	3	1	1	1	1	1	1	1	1	1	1
39	Homicide	4	3	1	1	1	1	1	1	1	3	6	11	1	6	7	4	5	1	1	1	1	1	1	1	1	1
40	Automobile accidents (all motor-driven road vehicles) and accidents by fire, explosion, and automobile accidents excepted	45	32	8	5	5	5	5	5	5	6	11	1	6	7	4	5	1	1	1	1	1	1	1	1	1	1
41	Causes of death ill-defined, unknown, or unspecified	92	55	28	7	2	3	5	6	6	5	6	7	7	12	11	7	14	3	3	3	3	3	3	3	3	3
42		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

Estimated Population, 197,600.

Total Resident Deaths, 2,228

Rate per 1,000 Population, 11.3.

TABULATION OF DEATHS IN TRENTON FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years		40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown																						
		Male		Female		Male		Female																																							
		Male	Female	Male	Female	Male	Female	Male	Female																																						
ALL CAUSES																								1402		756	579	78	49	65	76	8	15	13	61	63	60	91	242	305	314	160	14
1	Typhoid and paratyphoid fevers	16	7	8	1	1	1	1	1	1	2	1	1	1	1	5	1	4	1	1	1	2	1	1	1	1																					
2	Shigellosis	471	249	205	9	8	1	1	1	1	1	6	6	15	25	78	118	124	85	7	.....	.....	.....	.....	.....	.....															
3	Shigellosis, unspecified	3	18	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Tuberculosis of the respiratory system	88	63	16	15	4	1	1	1	1	14	15	6	6	28	11	5	1	1	1	1	1	1	1	1	1																					
7	All other forms of tuberculosis	6	2	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Scarlet fever	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Styphilia	10	6	2	8	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
10	Influenza	15	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases	5	8	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	Cancer, unspecified	193	115	69	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
16	Nonmalignant tumors or tumors of unspecified nature	9	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Chronic rheumatism and gout	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Gonorrhea	55	10	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Chorea, melitrus	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Avitaminoses, other	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	Diseases of the blood, and chronic diseases of other	19	5	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Meningitis (nonmeningococcal) and diseases of the spinal cord	8	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Intracranial lesions of vascular origin	109	47	55	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
24	Other diseases of the nervous system and sense organs	16	7	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diseases of the heart	471	249	205	9	8	1	1	1	1	1	2	1	1	1	5	1	4	1	1	1	6	6	15	25	78	118	124	85	7																	
26	Coronary diseases of the circulatory system	3	18	19																	
27	Bronchitis	65	23	23	4	5	10	14	3																	
28	Pneumonia and bronchopneumonia	5	5																	
29	Other diseases of the respiratory system	6	2	4																	
30	Diarrhea and enteritis	18	4																	
31	Dysentery, unspecified	19	10	8	1																	
32	Diseases of the liver and biliary passages	21	9	10	2																	
33	Other diseases of the digestive system	113	58	40	8	7																	
34	Nephritis	13	8	3																	
35	Other diseases of the urinary and genital systems	8	4																	
36	Puerperal infection																
37	Other diseases of pregnancy, childbirth, and the puerperium	3																
38	Diseases of the skin, cellular tissue, bones, and nails	3																
39	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	47	22	18	5	2	47	47																
40	Senility, old age	2	1	1																
41	Homicide	15	14	1																
42	Accidents (all motor-driven road vehicles)	3	12	1																
43	Automobile accidents (all motor-driven road vehicles)	29	18	6	5																	
44	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	56	33	16	5	2	3	1	5	1	4	4	5	4	10	6	3	8	2																	
45	Death ill-defined, unknown, or unspecified	1	1																

Estimated Population, 124,700.

Total Resident Deaths, 1,462.

Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN MIDDLESEX COUNTY FOR 1940, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods																													
								Under 1 Year		5 to 9 Years		10 to 14 Years		15 to 19 Years		20 to 29 Years		30 to 39 Years		40 to 44 Years		45 to 49 Years		50 to 59 Years		60 to 69 Years		70 to 79 Years		80 to 89 Years		90 Years and Over		Unknown			
		Male	Female	Male	Female	Male	Female																														
ALL CAUSES		2129	1143	906	48	82	122	141	12	16	31	85	105	80	171	388	487	398	198	22																	
1	Typhoid and paratyphoid fevers	2	1	1																																	
2	Plague																																				
3	Scarlet fever																																				
4	Whooping cough	1																																			
5	Diphtheria																																				
6	Other diseases of the respiratory system	86	51	24	8	3	1	1				20	14	6	17	12	14	2																			
7	All other forms of tuberculosis	6	3	2	1																																
8	Malaria	23	12	6	2	2						2	1	3	6	6	4																				
9	Syphilis	3	1	2																																	
10	Influenza	11																																			
11	Smallpox																																				
12	Measles																																				
13	Typhus fever																																				
14	Other infectious or parasitic diseases	7	5	3								3	2	2	2	1	8	6	1																		
15	Cancer and other malignant tumors	310	167	138	2	3						3	16	10	28	87	86	57	21	1																	
16	Neoplasmic tumors of un- specified nature	11	5	5	1																																
17	Neoplasmic tumors of un- specified nature and soft tissues	76	33	32	1							1	2	3	19	25	21	4																			
18	Diphtheria	4	3	2																																	
19	Chronic or acute alcoholism	36	21	15								5	1	3	7	7	3																				
20	Avitaminoses, other general diseases of the blood, and chronic poisonings of the system (meningococcal) and diseases of the system of vascular origin	6	5	1																																	
21		8	5	1																																	
22	Intra-cranial lesions of vascular origin	182	88	94	1	4						1	1	6	10	29	69	47	26	3																	
23	Other diseases of the nervous system and sense organs	21	8	9	4							5	4	1	1	1	1	3	2																		
24	Diseases of the heart	656	355	282	10	8						9	22	16	48	113	161	178	88	9																	
25	Other diseases of the circulatory system	25	12	12	1																																
26	Bronchitis	4																																			
27	Pneumonia and bronchopneumonia	34	4	3	1	1						2	4	2	1	14	4	5	1																		
28	Other diseases of the respiratory system	22	4	8																																	
29	Diarrhea and enteritis	7	4	3								1	1	1	1	1	1	1	1																		
30	Appendicitis	23	12	10	1							4	2	2	4	2	4	2	1																		
31	Diseases of the liver and biliary passages	39	24	15	1							1	1	3	4	13	15	3	2	1																	
32	Other diseases of the digestive system	32	16	14	1	2						4	4	7	10	21	39	20	16	2																	
33	Nephritis	125	60	65	1	3						1	2	4	7	10	21	39	20	16	2																
34	Other diseases of the urinary and genital systems	26	17	9								1	2	1	2	4	3	7	7																		
35	Puerperal infection	4										2	2	1	2	4	3	7	7																		
36	Other diseases of pregnancy, childbirth, and the puerperium	7										3	3	1	2	1	1	1	1																		
37	Diseases of the circulatory, tubular, bone, and organs of movement and debility, pre- mature birth, and diseases peculiar to the first year of life	4	2	2																																	
38	Congenital malformations and debility, pre- mature birth, and diseases peculiar to the first year of life	94	46	39	3	3						1	5	2	6	13	9	5	1																		
39	Scarlet fever	31	24	7																																	
40	Suicide	2	1																																		
41	Homicide	2	1																																		
42	Automobile accidents (all motor-driven road vehicles) and accidental death (aircraft, boats, and automobiles)	66	46	8	2							10	4	5	8	6	11	4	1																		
43	Other causes of accidental death (aircraft, boats, and automobiles)	112	72	38								5	10	3	4	8	17	18	11	11																	
44	Causes of death ill-defined, unknown, or un- specified	2										1	1	1	1	1	1	1	1																		

Estimated Population, 217,200.

Total Resident Deaths, 2,129.

Rate per 1,000 Population, 9.8.

TABULATION OF DEATHS IN MORRIS COUNTY FOR 1940, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	White		Colored		Age Periods										90 Years and Over	Unknown					
		All Deaths		Male	Female	Male	Female	Under 1 Year	Under 5 Years	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years			45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female			Male	Female	Male	Female	Male	Female
ALL CAUSES																						
1	Typhoid and paratyphoid fevers	1831	678	607	26	20	68	80	5	8	20	63	61	46	79	173	257	337	182	30		
2	Plague																					
3	Scarlet fever																					
4	Diphtheria																					
5	Whooping cough																					
6	Tuberculosis of the respiratory system	34	24	8	1	1						6	6	4	5	6	1	1	3	1		
7	All other forms of tuberculosis	8	4	3	1	3						1	1	1	1	1	1	1	1	1		
8	Malaria																					
9	Syphilis																					
10	Smallpox	11	8	2	1	2																
11	Measles	10	6	4	1	8																
12	Scarlet fever																					
13	Typhus fever	8	6	2		1	2	1				1	5	7	13	82	50	58	15	3		
14	Other infectious or parasitic diseases	184	78	100	3	3						1	2	1	1	1	1	1	1	1		
15	Cancer and other malignant tumors	4	2	2																		
16	Other tumors or tumors of unspecified nature	89	12	25		2						2	1	1	1	9	10	15	2			
17	Chronic rheumatism and gout	1	1																			
18	Diabetes mellitus	1	1																			
19	Chronic or acute alcoholism	1	1																			
20	Causes of the other general diseases, diseases of the nervous system, and diseases of the eye, ear, nose, and throat	20	6	14								2	1	1	3	5	2	2	1	1		
21	Meningitis (nonmeningococcal)	3	1	2																		
22	Intracranial lesions of vascular origin	118	46	72								2	1	1	3	16	35	33	23	3		
23	Other diseases of the nervous system and sense organs	10	2	8																		
24	Diseases of the heart	420	217	191	7	5	1	1	1	1	3	1	1	1	2	1	3	1	1	1		
25	Other diseases of the circulatory system	26	14	11								2	1	1	1	1	1	1	1	1		
26	Ischemic heart disease	3	3																			
27	Pneumonia and bronchopneumonia	4	18	27	1	1	10	11	1	1												
28	Other diseases of the respiratory system	6	6	2								1	1	1	1	3	6	6	9	7		
29	Diarrhea and enteritis	7	5	2																		
30	Appendicitis	12	9	3																		
31	Other diseases of the liver and biliary passages	12	10	2																		
32	Other diseases of the digestive system	20	13	3																		
33	Nephritis	169	40	56	2	5	1	1				1	3	3	2	3	3	3	3	1		
34	Other diseases of the urinary and genital systems	15	8	7																		
35	Puerperal infection	3	3																			
36	Other diseases of pregnancy, childbirth, and the puerperium	3																				
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1																			
38	Concussion, lacerations, and other injuries of the head, face, neck, and chest	45	24	16	3	2	45	45														
39	Senility, old age	16	7	5																		
40	Suicide	12	7	5																		
41	Homicide	1	1																			
42	Accidental accidents (all motor-driven road vehicles)	38	26	10	2																	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	99	81	17																		
44	Causes of death ill-defined, unknown, or unspecified	1	1																			

Estimated Population, 126,100. Total Resident Deaths, 1,331. Rate per 1,000 Population, 10.6.

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
																					Male	Female
	ALL CAUSES	532	286	217	15	14	20	24	2	3	6	10	28	25	27	66	116	140	66	11	
1	Typhoid and paratyphoid fevers																				
2	Dysentery																				
3	Scarlet fever																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	14	6	6	1	1						8	4								
8	All other forms of tuberculosis	4	2	1	1	1						1	1								
9	Syphilis	6	3	2																	
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Opthalmia neonatorum																				
14	Other specific infectious diseases																				
15	Cancer and other malignant tumors	65	28	35		2							1	4	3	8	21	18	9	1	
16	Nonmalignant tumors or tumors of unspecified nature																				
17	Chronic rheumatism and gout																				
18	Chronic arthritis	15	6	9																	
19	Chronic alcoholism	2	2																		
20	Avitaminoses and other general diseases, causes of the blood, and chronic poisonings	8	3	5			1	1													
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1	1																		
22	Intra-cranial lesions of vascular origin	49	25	23	1							1	1	2	3	3	10	33	6	1	
23	Other diseases of the nervous system and sense organs	4	3	1																	
24	Diseases of the heart	186	106	78	4	3															
25	Other diseases of the circulatory system	12	8	4																	
26	Pneumonia and bronchitis	27	15	9	1	2	5	5													
27	Pneumonia and bronchopneumonia																				
28	Other diseases of the respiratory system	2	1	1																	
29	Diarrhea and enteritis	2	1	1																	
30	Appendicitis	4	2	1																	
31	Diseases of the liver and biliary passages	12	4	8																	
32	Diseases of the digestive system	8	5	3																	
33	Nephritis	38	18	15	1	1															
34	Other diseases of the urinary and genital systems	6	5	1																	
35	Puerperal infection																				
36	Other diseases of pregnancy, childbirth, and puerperium																				
37	Diseases of the skin, cellular tissue, bones, and organs of movement	2		2																	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the infant year of life	13	8	4		1	18	18													
39	Senile old age	7	4	3																	
40	Suicide	1	1																		
41	Homicide	1	1																		
42	Automobile accidents (all motor-driven road vehicles)	17	12	4	1																
43	Other accidental deaths (suicide, homicide, and automobile accidents excepted)																				
44	Causes of death ill-defined, unknown, or unspecified	24	14	7	1	2	1	1	1	2	1	3	1	2	3	1	2	8	7	3	

Estimated Population, 37,800.

Total Resident Deaths, 532.

Rate per 1,000 Population, 14.1.

TABULATION OF DEATHS IN PASSAIC CITY, FOR 1940, 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	5 to 9 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	588	302	234	16	16	32	35	4	2	10	10	39	20	46	118	135	101	41	7	
2	Typhoid and paratyphoid fevers																				
3	Erysipelas																				
4	Whooping cough																				
5	Diphtheria																				
6	Tuberculosis of the respiratory system	28	21	3	3	1	1	1	1	1	1	4	9	1	3	6	2	1			
7	All other forms of tuberculosis																				
8	Scarlet fever																				
9	Measles	5	4	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	
10	Infantia	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	Smallpox																				
12	Measles																				
13	Cyphus fever	3	3																		
14	Other infectious or parasitic diseases	30	42	44	3	1	1	1	1	1	1	2	5	9	17	25	25	5	1		
15	Cancer of all sites	4	4																		
16	Nonmalignant tumors or unspecified nature																				
17	Chronic rheumatism and gout																				
18	Chorea	30	9	21																	
19	Chorea melitica																				
20	Chorea melitica, sublethal																				
21	Other general diseases, diseases of the blood, and chronic poisonings	17	4	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
22	Menstritis (nonmeningococcal) and diseases of the spinal cord	1	1	1																	
23	Intracranial lesions of vascular origin	44	18	23	2	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	2	1																		
25	Diseases of the eye	177	101	68	3	5															
26	Other diseases of the circulatory system	4	4																		
27	Bronchitis and bronchopneumonia	18	10	6	1	1	1	1	1	1	1	4	1	2	2	1	1	1	1	1	
28	Other diseases of the respiratory system	1	1																		
29	Pneumonia and enteritis	1	1																		
30	Diphtheria and enteritis	12	7	2																	
31	Diseases of the liver and biliary passages	13	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
32	Other diseases of the digestive system	30	15	15																	
33	Nephritis	10	7	3																	
34	Other diseases of the urinary and genital systems																				
35	Perennial infection																				
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1																		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1																		
38	Other diseases of movement and disability, premature birth, and diseases peculiar to the first year of life	24	13	9																	
39	Senility, old age	2	1	1																	
40	Suicide	14	12	2																	
41	Accidents (all motor-driven road vehicles)	2	2																		
42	Automobile accidents (all motor-driven road vehicles)	7	6	1																	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	13	8	3																	
44	Centred death ill-defined, unknown, or unspecified																				

Estimated Population, 61,400.

Total Resident Deaths, 568.

Rate per 1,000 Population, 9.3.

TABULATION OF DEATHS IN PATERSON CITY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown	
1	ALL CAUSES	1635	836	726	38	35	87	94	9	8	14	38	77	60	76	276	379	380	187	30	
2	Typhoid and paratyphoid fevers																				
3	Scarlet fever																				
4	Whooping cough	3	1	1			2	3													
5	Diphtheria																				
6	Tuberculosis of the respiratory system	61	30	15	10	6	1	1	1	1	1	11	12	7	4	15	6	4			
7	Malta fever	2	2																		
8	Malaria	14	6	6	1	2															
9	Syphilis	15	6	2																	
10	Influenza																				
11	Smallpox																				
12	Measles																				
13	Epidemic typhus																				
14	Other infectious or parasitic diseases	5	3	2																	
15	Cancer and other malignant tumors	242	112	124	5	1	1	1	1	1	1	1	7	7	17	54	79	61	13		
16	Nonmalignant tumors or tumors of unspecified nature	8	4	3	1	1	1	1													
17	Cerebral meningitis and gout	18	10	3	1																
18	Diabetes mellitus and gout	65	3	1																	
19	Chronic or acute alcoholism	31	3																		
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	25	11	14																	
21	Malnutrition (marasmus) and diseases of the spinal cord	3	1																		
22	Intra-cranial lesions of vascular origin	151	69	78																	
23	Other diseases of the nervous system and sense organs	13	10	3																	
24	Diseases of the heart	501	277	210	7	7	1	2	1	1	1	2	4	19	24	73	128	139	73	13	
25	Other diseases of the circulatory system	39	23	16																	
26	Pneumonia and bronchitis	2	2																		
27	Other diseases of the respiratory system	85	45	37	3	2	11	13	2	1	2	1	5	2	1	0	12	4	12	15	
28	Diarrhea and enteritis	9	4	4																	
29	Appendicitis	8	4	4																	
30	Diseases of the liver and biliary passages	10	5	4	1																
31	Diseases of the digestive system	24	30	13																	
32	Nephritis	138	58	59	2	1															
33	Other diseases of the urinary and genital systems	22	13	4	2	3															
34	Puerperal infection	3	2																		
35	Other diseases of pregnancy, childbirth, and puerperium	2																			
36	Diseases of the skin, cellular tissue, bones, and organs of movement	2	2																		
37	Congenital malformations and debility, premature birth, and diseases peculiar to the mature, young, and old age	64	37	23	2	3	64	64													
38	Senility, old age	6	3																		
39	Suicide	25	14	11																	
40	Homicide	4	3	1																	
41	Automobile accidents (all motor-driven road vehicles)	24	15	7	1	1	2														
42	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	24	15	7	1	1	2														
43	Causes of death ill-defined, unknown, or unspecified	42	30	12																	
44	Causes of death ill-defined, unknown, or unspecified	42	30	12																	

Estimated Population, 139,700.

Total Resident Deaths, 1,635.

Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN SALEM COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	498	283	181	48	36	35	41	3	5	5	6	5	6	14	26	70	98	115	64	14	
2	Typhoid and paratyphoid fevers																					
3	Dysentery																					
4	Whooping cough																					
5	Diphtheria																					
6	Tuberculosis of the respiratory system																					
7	All other forms of tuberculosis																					
8	Malaria																					
9	Syphilis																					
10	Influenza																					
11	Smallpox																					
12	Measles																					
13	Typhus fever																					
14	Other infectious or parasitic diseases																					
15	Neoplasms (malignant tumors or tumors of unspecified nature)	56	26	25	2	3																
16	Nonmalignant tumors																					
17	Chronic rheumatism and gout																					
18	Diabetes mellitus																					
19	Alcoholism or acute alcoholism																					
20	Aviary or chronic diseases of the blood, and chronic diseases of the spinal cord	6	3	3																		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	1																				
22	Intracranial lesions of vascular origin	41	24	15	5																	
23	Other diseases of the nervous system and																					
24	Diseases of the heart	159	82	61																		
25	Other diseases of the circulatory system	14	6	6																		
26	Bronchitis																					
27	Pneumonia and bronchopneumonia	26	6	11	4	5	8	10														
28	Other diseases of the respiratory system	1	1	1																		
29	Dysentery and enteritis	3	3	3																		
30	Appendicitis	3	3	3																		
31	Diseases of the liver and biliary passages	10	6	3	1																	
32	Other diseases of the digestive system	11	3	3	2	3																
33	Nephritis	39	22	9	2	6																
34	Other diseases of the urinary and genital	6	1	2	3																	
35	Puerperal infection																					
36	Other diseases of pregnancy, childbirth, and the puerperium	1		1																		
37	Diseases of the skin, cellular tissue, bones, and nails	1		1																		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	21	7	6	6	2	21	21														
39	Senility, old age	9	1	1																		
40	Senility, old age	9	1	1																		
41	Homicide	7	1	1	3	2																
42	Automobile accidents (all motor-driven road vehicles)	20	13	5	1	1																
43	Other violent or accidental deaths (suicide, other violence, and automobile accidents excepted)	17	5	11																		
44	Causes of death ill-defined, unknown, or unspecified																					

Estimated Population, 42,400

Total Resident Deaths, 498

Rate per 1,000 Population, 11.7.

TABULATION OF DEATHS IN ELIZABETH FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 44 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown			
																					Male	Female	
	ALL CAUSES	1193	618	401	53	31	58	72	7	7	9	7	9	46	71	58	73	241	253	228	110	18	
1	Typhoid and paratyphoid fevers	1	1															1					
2	Plague																						
3	Scarlet fever																						
4	Whooping cough																						
5	Diphtheria	43	25	6	7	5	1	1	1	3			8	14	7	1	5	4					
6	Other diseases of the respiratory system	4	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1
7	All other forms of tuberculosis	12	6	2	1	3	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
8	Malaria	4	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
9	Syphilis	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Influenza	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Measles	12	6	2	1	3	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
12	Smallpox																						
13	Typhus fever	3	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
14	Other infectious or parasitic diseases	172	88	78	5	1				1			2	8	6	17	62	44	32	6	2		
15	Cancer and other malignant diseases	5	1	4																			
16	Nonmalignant tumors or tumors of uncertain nature	32	13	19																			
17	Chronic rheumatism and gout	1	1																				
18	Diabetes mellitus	1	1																				
19	Chronic or acute alcoholism	21	7	12	1	1	1	1	1	1	1	1	1	2	1	1	3	9	1	1	1	1	1
20	Other general diseases, diseases of the blood, and chronic poisonings	8	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Measles (noninfectious) and diseases of the spinal cord	117	52	59	4	2								2	1	6	8	27	26	32	10		
22	Intracranial lesions of vascular origin																						

23	Other diseases of the nervous system and sense organs	8	4	4																			
24	Diseases of the heart	380	202	111	5	1	1	1	2				9	9	13	15	88	98	101	46	8		
25	Diseases of the circulatory system	34	2	20	1								1	1	1	1	2	2	10	14	3		
26	Bronchitis	4	2	2																			
27	Pneumonia and bronchopneumonia	70	37	28	3	2	8	10	1	1			2	6	1	1	6	11	15	10			
28	Other diseases of the respiratory system	9	2	6	1	1	1	2	1	1			1	1	1	1	1	1	2	1			
29	Diarrhea and enteritis	17	7	6	3	1	2	2	1	1			1	5	3	1	1	1	2	2			
30	Appendicitis	23	14	7	2	1	1	1	1	1			1	1	4	3	5	7	2	2			
31	Other diseases of the liver and biliary passages	32	25	6	1	2	3	3	1	1			3	2	1	2	6	8	15	4	2		
32	Other diseases of the digestive system	44	17	21	2	4	1	1	1	1			1	1	1	2	2	3	4	3			
33	Nephritis	16	10	5	1									1	1	2	2	3	4	3			
34	Other diseases of the urinary and genital systems																						
35	Infection																						
36	Other diseases of pregnancy, childbirth, and the puerperium	5		4																			
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	2	1																			
38	Congenital anomalies and debility, especially those which are diseases peculiar to the first year of life	41	21	14	3	3	40	41					3	2	2	2	1						
39	Senility, old age	4	4	3																			
40	Suicide	10	7	3																			
41	Homicide	4	3	1																			
42	Accidental deaths (all motor-driven road vehicles)	21	16	4	1									5	4	2	3	5		1			
43	Other violent or accidental deaths, suicide, homicide, and automobile accidents (excepted)																						
44	Causes of death ill-defined, unknown, or unspecified	37	27	7	1	2	2	1	1	1			3	5	3	4	8	5	3	2			

Estimated Population 100,000.

Total Resident Deaths, 1,193.

Rate per 1,000 Population, 10.9.

TABULATION OF DEATHS IN WARREN COUNTY FOR 1940, 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 Years	10 to 14 Years	15 to 19 Years	20 to 29 Years	30 to 39 Years	40 to 49 Years	45 to 49 Years	50 to 59 Years	60 to 69 Years	70 to 79 Years	80 to 89 Years	90 Years and Over	Unknown
1	ALL CAUSES	639	323	313	1	2	23	27	1	5	9	23	21	15	32	81	139	178	94	17				
2	Typhoid and paratyphoid fevers																							
3	Plague																							
4	Scarlet fever																							
5	Diphtheria																							
6	All verucosus of the respiratory system																							
7	All forms of tuberculosis																							
8	Malaria																							
9	Syphilis																							
10	Influenza																							
11	Scarlet fever																							
12	Whooping cough																							
13	Other infectious or parasitic diseases																							
14	Cancer and other malignant tumors of unspecified nature	4	3	1																				
15	Cancer and other malignant tumors of unspecified nature	80	41	39																				
16	Chronic rheumatism and gout																							
17	Diabetic rheumatism and gout																							
18	Chronic rheumatism and gout																							
19	Chronic or acute alcoholism	20	9	11																				
20	Other diseases of the blood, and chronic poisonings	6	1	5																				
21	Meningitis (meningococcal) and diseases of the spinal cord	2	1	1																				
22	Intracranial lesions of vascular origin	59	22	37																				
23	Other diseases of the nervous system and disease of the brain	6	4	2																				
24	Other diseases of the nervous system and disease of the brain	206	115	90																				
25	Other diseases of the circulatory system	12	2	8																				
26	Bronchitis	37	21	16																				
27	Pneumonia and bronchopneumonia	5	2	3																				
28	Other diseases of the respiratory system	5	2	3																				
29	Dysentery and enteritis	15	12	3																				
30	Appendicitis	53	18	34																				
31	Diseases of the liver and biliary passages	9	6	3																				
32	Other diseases of the digestive system	0	0	0																				
33	Nephritis	1	1	0																				
34	Other diseases of the urinary and genital systems	1	1	0																				
35	Puerperal infection	1	1	0																				
36	Other diseases of pregnancy, childbirth, and the puerperium	1	1	0																				
37	Diseases of the skin, cellular tissue, bones, and nails	10	3	7																				
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	3	3	0																				
39	Senility, old age	6	6	0																				
40	Stroke	1	1	0																				
41	Homicide	18	13	5																				
42	Automobile accidents (all motor-driven road vehicles)	20	15	5																				
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	1	1	0																				
44	Causes of death ill-defined, unknown, or unspecified	1	1	0																				

Estimated Population, 50,200.

Total Resident Deaths, 639.

Rate per 1,000 Population, 12.7.

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