

FIFTY-SIXTH ANNUAL REPORT
OF THE
Department of Health
OF THE
STATE OF NEW JERSEY

1933



WITHDRAWN

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1933

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Department of Health of the State of New Jersey

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

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

STATE OF NEW JERSEY,
DEPARTMENT OF HEALTH,
TRENTON, N. J., August 16, 1933.

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, 1933.

CHARLES I. LAFFERTY,
President,
State Department of Health.

STATE OF NEW JERSEY,
DEPARTMENT OF HEALTH,
TRENTON, N. J., August 16, 1933.

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, 1933. The reports of the Bureau Chiefs will give comprehensive accounts of the activities of the ten Bureaus of the Department during the year.

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

Report of the Director of Health

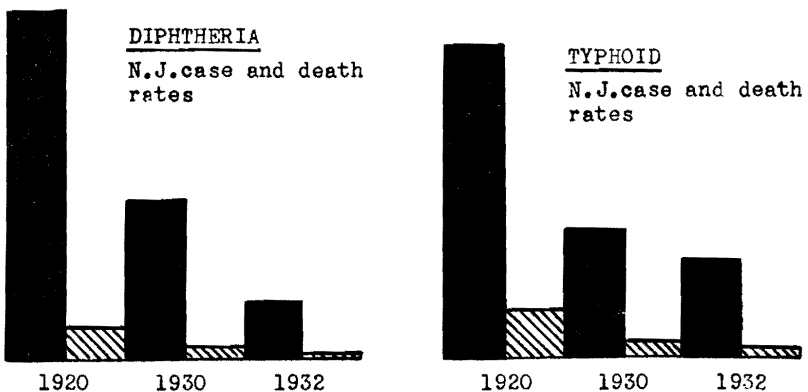
J. LYNN MAHAFFEY, M.D.

The year which ended June 30, 1933, witnessed reduction of the case and death rates for tuberculosis, typhoid fever and diphtheria, and also the infant mortality rate, to new low records for New Jersey.

The year was marked by the application of a new and far-reaching milk control law which the State Department of Health was delegated to enforce; by the enlargement of the laboratories and other quarters of the Department; by a significant increase in the use of services offered by its various bureaus; and by the enactment of new laws which will affect public health work in this State in the future.

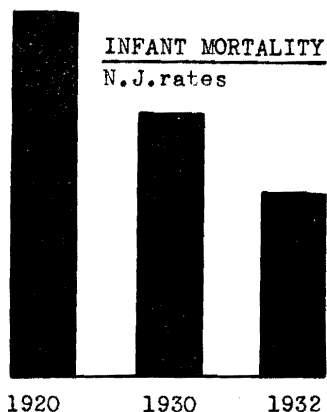
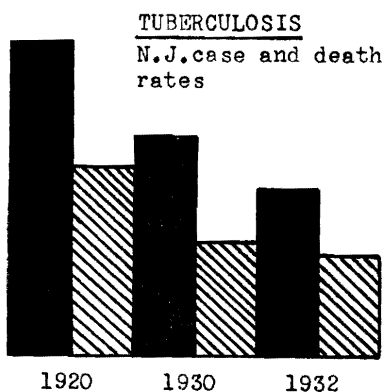
In addition, progress in many lines of endeavor which form the routine work of the Department was conspicuous. These and other matters are described in detail in the reports of the 10 bureaus into which the Department is divided for administrative purposes. Mention of some of the more important of them is made here.

The continued downward trend of diseases for which preventive measures are available proves that these means are being applied intelligently and to a creditable extent. If one doubts the beneficent effects of sanitation or would have proof of the value of preventive medicine and hygiene, the four charts which follow should be convincing.



Case rates—black. Death rates—barred. Charts not drawn to the same scale.

DEPARTMENT OF HEALTH



N. J. CASE, DEATH AND INFANT MORTALITY RATES PER 1,000

	<i>Diphtheria</i>		<i>Typhoid</i>		<i>Tuberculosis</i>		<i>Infant</i>
	<i>Case Rate</i>	<i>Death Rate</i>	<i>Case Rate</i>	<i>Death Rate</i>	<i>Case Rate</i>	<i>Death Rate</i>	<i>Mortality Rate</i>
1920	2.19	.18	.20	.03	1.91	1.14	87.3
1930	1.02	.08	.08	.01	1.30	.69	56
1932 .....	.33	.02	.06	.006	1.07	.60	50

The law regulating the production, handling, importation and distribution of milk, cream and milk products in New Jersey (Chapter 131, P. L. 1932) placed an immense amount of additional work upon the Department. The act made necessary among other things the approval, following inspection by some New Jersey public health official, either State or local, of every dairy and milk plant from which milk and cream to be used in the fluid state is shipped into New Jersey. Subsequently it was found that some 35,700 dairy farms and 319 milk plants located in the States of New York, Pennsylvania, Delaware and Maryland were included in this group.

To inspect these places within the time specified was impossible. In order that milk distributors might not be forced to violate the law by importing milk without the required permit, temporary permits were issued, based on the affidavits of the distributors that the provisions of the law had been complied with. It soon became evident that some had deliberately sworn to falsehoods for the purpose of securing permits. Where this was proved, tem-

REPORT OF THE DIRECTOR OF HEALTH 9

porary permits were revoked and applications for permits rejected. Word that false statements were likely to result in failure to obtain a permit soon spread and had the desired effect. Of the 137 permits issued to transport milk into the State, 14 have been revoked.

This law set forth minimum standards under which milk produced within, as well as without New Jersey, was to be produced. Inspections of dairy farms and milk plants in this and other States have been carried on as rapidly as possible, numerous local health departments cooperating in this work. A general attempt to comply with the requirements of the act has been found.

Adequate space for the laboratories of the Department has been acutely needed for many years. During the past year this need was met by the State House Commission when it provided office space for four of the bureaus of the Department on the second floor of the capitol building and converted the rooms thus vacated on the fourth floor into additional laboratory quarters. For the first time in more than a decade, the exacting tests performed in the bacteriological, serological and the water and sewage laboratories can be carried on in a satisfactory manner.

This enlargement of quarters permits additional service to be rendered. A 57 per cent. increase in the number of samples of water and sewage tested took place last year. Wassermann tests for evidence of syphilitic infection continue to mount in numbers, over 41,000 being examined in this 12-month period. Additional employees will be needed in these branches before many more tests can be performed.

Chapter 175, P. L. 1933, placed upon the Department the duty of licensing some 10,000 barbers now practicing their trade in New Jersey, the examination of other barbers desiring licenses, and the inspection of barber shops. This work, which will be supported to a large degree by the fees collected, created a new regulatory activity. Since the act was passed at the request of the barbers, their cooperation in securing its strict enforcement should follow.

An important change in the venereal disease law puts upon a rational basis the period during which syphilis and gonorrhea are considered infectious. This time will now be determined by the physician treating the case rather than by the faulty arbitrary standard set forth in the old law. The local health officer has been given power of review and the right to have the final decision made by a physician of his choice.

The outbreak of poliomyelitis which occurred in the late summer and the autumn of 1932 resulted in 339 cases and 38 deaths from this disease. Unlike the much larger epidemic of the previous year which centered in the northern metropolitan area, most of the cases were in the southern counties. Some 15,000 cubic centimeters of blood for making convalescent immune serum were obtained from 38 volunteers who had previously had infantile paralysis. These persons were paid ten dollars apiece later in the year from a special fund provided for dealing with the epidemic. The serum thus obtained, together with that remaining from 1931, was sufficient to meet all requests for treatment and also for use on some exposed children with the hope of creating immunity. Whether or not this was effective could not be ascertained due to the small numbers and lack of proper controls.

Advance toward higher standards of public health is indicated in various acts of the Department during the year and by the results of policies adopted in the past. Some of these are set forth in the following paragraphs.

Reclassification of water purification and sewage disposal plants for purposes of licensing operators and the adoption of definite qualifications, based on training and experience, which must be met by applicants for licenses, were approved by the Department. It is now possible to be more nearly sure that an applicant is qualified to assume responsibility for the operation of these important public safeguards and he can be examined with special reference to the type of purification or treatment unit to which he will be assigned.

Minimum standards of sanitation to be observed at roadside stands, restaurants, soda fountains, lunch rooms and similar places were adopted by the Department. These are not regula-

REPORT OF THE DIRECTOR OF HEALTH 11

tions, but are based upon provisions of existing laws and the State Sanitary Code. The standards will serve as a guide to local and State health officials and also to proprietors of eating places.

An audiometer was purchased for renting to schools not equipped with such an instrument. By means of this service, delicate tests to detect cases of defective hearing can be made, even in small communities. In the few months this instrument has been in use, more than 25,000 children were tested.

The Department cooperated in applying scientific methods for detecting and curing cases of syphilis to a large food industry, resulting in the diagnosis of 125 cases of this disease among the workers. Arrangements were made locally whereby these persons obtained treatment until rendered non-infectious.

Advanced courses for midwives which have been conducted since 1927 with the help of the Department have resulted in 147, or 40 per cent., of the supervised midwives of the State receiving one month's training in a maternity hospital.

Sampling stations were established at 204 points along rivers and streams throughout the State. Tests of samples collected at regular intervals will assist in protecting public water supplies, recreational centers, fish life, waters used for agricultural purposes, for industries and manufacturing as well as determining sources of pollution.

A striking improvement in coastal waters which was due directly to departmental action was revealed by tests of the surf at 60 northern bathing beaches. As a result of requiring chlorination of sewage plant effluents which discharge into the Atlantic Ocean in this section, B Coli in the surf were reduced 98 per cent. in four years. Tests of the water in 1928, before chlorination was required, showed the average number of B Coli present to be 56.7 per cubic centimeter on ebb tide and 49 on flood tide. In 1932 the average numbers were 0.84 per cubic centimeter on split tide, ebb and flood, and 0.54 on flood tide.

Certain portions of Sandy Hook Bay were reopened for the harvesting of clams following a series of tests of the waters of the condemned area. Although this improvement in sanitary

quality was not due to action taken in New Jersey it was gratifying to be able to lift restrictions on a large and important section of shellfish grounds.

By transferring the water and sewage laboratory from the Bureau of Engineering to the Bureau of Chemistry, the chemists of the Department can be employed to better advantage, especially at seasons when a peak load is carried by one or another branch of this division.

Other evidence of progress included the repair of old and valuable records of births, marriages and deaths, improvement in the sanitation of many roadside stands in rural sections following inspections by district State health officers and the defining by the Department of a public potable water supply as one serving eight or more houses or properties.

The public was given information and instruction on timely public health matters through press releases. Owing to the lack of appropriations, the monthly bulletin of the Department, Public Health News, was not published during the fiscal year.

Certain new aspects of public health and welfare have been brought to light. Dog bite is now reportable to local health authorities and the record for the first year shows 7,809 reported bites in 1932. It is improbable that this is a complete record. Had 7,000 persons been bitten by wild animals or any other domestic animal the menace would long since have aroused public ire and have been abated. How much longer will we tolerate being attacked to this extent? Nor is this the whole story.

Among the dogs that did this wholesale biting were 222 affected with rabies, wild animals of a most dangerous kind. Three bitten persons died of rabies. Sufficient authority exists to deal with this situation, but not until public opinion demands that dogs, as well as other animals, be kept under control are we likely to see the end of such needless suffering.

Cross connections between public water supplies and unapproved supplies may not be maintained legally in New Jersey except by permit issued by the State Department of Health. Enforcement of this regulation, which is embodied in Chapter 13 of the State Sanitary Code, is a duty of local boards of health. Since

REPORT OF THE DIRECTOR OF HEALTH 13

1929, when this rule became effective, permits have been issued for 133 connections of approved types at factories in 56 municipalities. A list of these connections is given in the report of the Engineering Bureau.

There follows a list of articles of food held in cold storage for twelve months and for which an extension of time was granted by the Director of Health. This list is published as required by Chapter 101, P. L. 1916.

Section 8, Chapter 101 of the Laws of 1916, provides that the 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 of each particular lot of food on which extensions were granted shall be included in the annual report of the Director of Health. During the year from July 1, 1932, to June 30, 1933, extensions of time were granted for the storage of food in cold storage as follows:

<i>Article</i>	<i>Quantity</i>	<i>Date of Storage</i>	<i>Period of Extension</i>
Cheese	1,000 boxes	July 9, 1931	2 months
Cheese	1,000 boxes	July 10, 1931	2 months
Cheese	950 boxes	July 21, 1931	3 months
Cheese	20 boxes	Aug. 7, 1931	3 months
Cheese	90 boxes	Aug. 11, 1931	3 months
Cheese	252 boxes	Oct. 26, 1931	3 months
Cheese	500 boxes	Dec. 1, 1931	3 months
Cheese	321 boxes	June 1, 1932	3 months
Frozen Eggs	76 30-lb. cans	Oct. 21, 1931	3 months
Frozen Eggs	118 30-lb. cans	April 11, 1932	3 months
Frozen Eggs	3,453 30-lb. cans	April 26, 1932	3 months
Frozen Eggs	351 30-lb. cans	May 1, 1932	3 months
Frozen Eggs	528 30-lb. cans	May 16, 1932	3 months
Poultry	24 boxes	Oct. 15, 1931	1 month
Poultry	11 boxes	Nov. 30, 1931	1 month
Poultry	21 barrels	Dec. 9, 1931	1 month

Report of Bureau of Administration

For the Year Ending June 30, 1933

CHARLES J. MERRELL, CHIEF

Irvin E. Deibert, M.D., whose term as a member of the Department expired on July 1, 1933, was re-appointed by Governor Moore for a full term of four years. The term of Colonel Frank S. Tainter also expired on July 1, 1933. Colonel Tainter was not re-appointed, but Clyde Potts, C.E., who previously served for a number of years as a member of the Department, was again appointed for a term of four years in place of Colonel Tainter.

At the meeting of the Department on July 11, 1933, Mr. Charles I. Lafferty was re-elected President and Miss Margaret L. MacNaughton was elected Vice-President of the Department for the coming year.

During the past year the Department lost a very efficient and faithful employee through the death of Mr. A. I. Goehrig, Special Investigator in the Bureau of Food and Drugs, who passed away after a brief illness on April 22, 1933. Mr. Goehrig was connected with the Department for twenty-nine years, and he also served as a member of the Board of Examiners of Health Officers and Sanitary Inspectors for a period of eight years.

At the meeting of the Department held on May 2, 1933, the following preamble and resolution was adopted:

WHEREAS, The State Department of Health has sustained a serious loss in the death of Avellino I. Goehrig, Special Investigator in the Bureau of Food and Drugs; and

WHEREAS, Mr. Goehrig was a most loyal, able and conscientious worker and was a leader in this country in the inspection and supervision of food establishments and milk pasteurizing plants; and

WHEREAS, In the passing from life of such a Christian gentleman we feel the loss of his personal contact, and we shall cherish a deep appreciation of his attainments in improving the milk supply of this State, and a profound respect for his many human tendencies of sympathetic understanding; now, therefore,

Be it Resolved, That this Department extends its most sincere sympathy to the family of Mr. Goehrig.

Mrs. Ella C. Closson, Senior Clerk in the Bureau of Vital Statistics, retired on September 1, 1932. Mrs. Closson, who was seventy-six years of age, had been employed in said bureau for forty-two years. Mrs. Closson was one of the first persons employed in the State Department of Health and rendered a loyal, efficient and faithful service to the Department during this long period of years.

Harold J. Harder, C.E., a former member of this Department, passed away on March 16, 1933, and the Department, at its meeting on May 2, 1933, adopted the following preamble and resolution:

WHEREAS, Harold J. Harder, of Paterson, New Jersey, served as a member of the State Board of Health from May 1, 1920, to July 1, 1932, and as its Vice-President from July 1, 1929, to July 1, 1932; and

WHEREAS, In this service he brought to the use of the Board a broad experience in his chosen profession of civil engineering, an intimate knowledge of the varied public health aspects of the work of the Department, faithful attention to his responsibilities as a public official and regular attendance at stated and special meetings of the Board; and,

WHEREAS, He exhibited to his confreres on the Board an unflinching courtesy of demeanor and a most unselfish and helpful cooperation in his personal and official relationships; therefore,

Be it Resolved, That the members of the Board of the State Department of Health feel that the Board and the individual members thereof have sustained an irreparable loss in the death of their associate and desire to express their grief in his passing and their sympathy with his bereaved family; and,

Be it Further Resolved, That a copy of this resolution be spread in full upon the minutes of the Board and that another copy be sent to Mrs. Harder.

APPROPRIATIONS

For the year ending June 30, 1933, the Department was granted an appropriation by the Legislature of \$429,646.06. The appropriation granted for the year ending June 30, 1934, is \$411,392.52, which is \$18,253.54 less than the appropriation for the

preceding year. The appropriation granted the Department for the year ending June 30, 1932, was \$539,708.50.

In addition to this, the Department is charged with the enforcement of the following four new laws entailing considerable expenses :

Chapter 175, an act to regulate the occupation of barbering.

Chapter 186, an act defining and relating to narcotic drugs, making uniform the law with relation thereto and providing penalties for violations thereof.

Chapter 243, an act regulating the production, handling, sale and distribution of milk, cream and milk products.

Chapter 271, an act to regulate the manufacture, handling, sale and distribution of ice cream, sherbets or ices.

It is provided by the appropriation law that fees received for milk permits in the enforcement of Chapter 243 shall be credited to the Department for carrying on this work. In the case of Chapter 175, regulating the occupation of barbering, it is provided that \$10,000 of the amount received from the barbers for licenses and certificates issued shall be credited to the Department for the enforcement of the act. No appropriation has been made and no funds may be credited to the Department for the enforcement of the narcotic law, Chapter 186, nor the ice cream law, Chapter 271. Any monies used for the enforcement of these acts must be taken from the regular appropriations of the Department which have already been again reduced this year as above indicated.

The appropriation for printing was increased sufficiently to allow the Department to resume the printing of the "Public Health News." "The News" will, therefore, doubtless be issued during the coming year.

All requests for new employees, temporary or permanent, were refused, and, as has been the case for a number of years, no salary increases were allowed. A law was again passed at the last session of the Legislature providing that salaries of employees shall be continued to be reduced from one to ten per cent. during the coming year as in the past year.

A financial statement showing the expenditures by the Bureau of this Department for the year ending June 30, 1933, will be found at the close of the report of this Bureau.

The question of securing Federal funds for necessary construction work in relation to water purification and sewage disposal plants in the State was discussed at a meeting of the Department held on May 2, 1933, at which time the following preamble and resolution were adopted :

WHEREAS, It is understood that the present administration advocates the expenditure of a considerable amount of money on public work in order to relieve unemployment; and

WHEREAS, The construction of necessary water purification and sewage disposal plants which are urgently needed in the State of New Jersey in order to protect the health and welfare of our citizens and to protect the interests of a large number of people deriving a livelihood from the gathering of shell-fish has been deferred because the municipalities are not able to raise funds to finance improvements; therefore,

Be it Resolved, That we bring to the attention of the President of the United States and the members of the United States Senate and House of Representatives from the State of New Jersey the desirability of aiding these municipalities in the construction of water treatment plants and sewage disposal plants in cases where the municipalities are at this time unable to finance these improvements; and,

Be it Further Resolved, That the Director prepare a list of such needed projects and request our United States Senators and Congressmen to use their best efforts to secure a part of this money for the purpose of protecting public health in the State of New Jersey.

A list of needed projects was prepared in accordance with the above resolution and submitted to the Federal authorities. It is hoped that funds will be secured for the construction of the plants referred to.

BOARD OF EXAMINERS AND EXAMINATIONS

Regular examinations were held on the last Friday of July, October, January and April during the past year as usual. No special examinations were conducted.

Edwin H. Coward, M. D., of Pleasantville, Patrick J. Monaghan of Newark, James J. Hagan of Jersey City, and David D. Chandler of Newark, together with Wallace T. Eakins and A. I. Goehrig of the Department, were re-appointed as members

BUREAU OF ADMINISTRATION

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of the Board of Examiners for the year beginning March 1, 1933. Mr. David D. Chandler was elected President and Mr. A. I. Goehrig, Secretary. Following the death of Mr. Goehrig in April last, Mr. Eakins was elected Secretary.

One hundred thirty-nine applications were filed with the Board of Examiners during the year for examination as Health Officer or Inspector.

Those securing a general average of seventy per cent or more were granted licenses as follows: Health Officer, 20; Sanitary Inspector of the First Class, 13; Sanitary Inspector of the Second Class, 1; Sanitary Inspector of the Third Class, 1; Plumbing Inspector, 20; Milk Inspector, 1; Veterinary Meat Inspector, 1.

The Bureau of Engineering of the Department conducted the usual examinations during the year for sewage and water plant operators. Information concerning said examinations will be found in Report of the Bureau of Engineering.

ANIMAL EXPERIMENTATION

Application was presented to the Department by Merck and Company, Inc., Rahway, for permission to conduct certain experiments on animals including cats and dogs in the laboratories of said Company at Rahway. A special committee of the Department was appointed to make investigation regarding said application, and this committee recommended that a permit be granted by the Department to Merck & Company as requested with the understanding that if the Company does not live up to its obligations, the Department may revoke the permit at any time, that any member or representative of the State Department of Health and any authorized member of the S. P. C. A. may enter the laboratory of the Company at any time, and, further, that the Company agrees never to experiment nor operate on any of the higher animals without anaesthesia, and that there shall be no torture.

In accordance with the recommendation of the committee, the following permit was issued to Merck & Company by the Department on January 10, 1933:

To all to whom these presents come, greeting:

The Merck and Company, Inc., Rahway, N. J., having presented to this Department a petition to carry on within the State of New Jersey scientific experiments or investigations as provided in Chapter 160 of the Laws of 1915, entitled: "An act for the prevention of cruelty to animals, approved March eleventh, one thousand eight hundred and eighty," wherein it is set forth that it is desired to conduct experiments on animals, including cats and dogs, such experiments to be conducted in the laboratory of the Merck Institute of Therapeutic Research, Rahway, New Jersey.

This is to certify that the Department of Health of the State of New Jersey, by virtue of the power conferred upon it by Chapter 160 of the Laws of 1915, aforesaid, hereby authorizes the said Merck and Company, Inc., to carry on scientific demonstrations, experiments and investigations, as above indicated, in the laboratory of the Merck Institute of Therapeutic Research at Rahway, in the county of Union and State of New Jersey.

Dated: Trenton, N. J.

This tenth day of January, 1933.

CEMETERIES AND CREMATORIIUMS

Application was made by citizen freeholders of North Brunswick Township, Middlesex County, for reversal of the decision of the Township Committee of said Township in granting consent to Mr. Herman Woltman to establish a cemetery on his farm in North Brunswick Township. A public hearing regarding said application was held by a special committee of the Department at the Adams School in North Brunswick Township on September 30, 1932. At the time of said hearing, statements were made to the effect that there were at that time already five cemeteries in said Township. A list giving the names and locations of the cemeteries was later submitted to the Department, and attention was called to the provisions of Chapter 20 of the Laws of 1929 regulating the number of cemeteries which may be located in any city, town or township in New Jersey. Evidence submitted showed that there were five or more cemeteries in North Brunswick Township, but there was some uncertainty as to how many of these were incorporated cemeteries. The Attorney General was, therefore, requested to advise the Department regarding Chapter 20 of the Laws of 1929, and the following opinion was received from him under date of October 11, 1932:

BUREAU OF ADMINISTRATION

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"October 11, 1932.

*Dr. J. Lynn Mahaffey, Director,
Department of Health,
State House, Trenton, N. J.*

DEAR SIR:

Your letter of October 7th regarding Chapter 20, Laws of 1929, is at hand. You request my opinion as to whether the act prohibits the location of an additional cemetery in a city, town or township if there are already five cemeteries in said municipality, or does it only prohibit the establishment of an additional cemetery in the case of a municipality in which there are already five incorporated cemeteries.

Section two of the act mentioned above provides in part as follows:

'No more than five cemeteries shall be located or placed under and by virtue of said act to which this is a supplement, in any one city, township, borough or town in any county of this State; *provided, however*, that nothing in this section shall prevent any cemetery association now incorporated from continuing, maintaining, enlarging and conducting any cemetery in any township of this State where such cemetery has been located and used for the past ten years successively * * *.'

My opinion is that this act prohibits the location of any additional cemetery if there are five already located in the municipality concerned. The fact that the cemetery is incorporated or unincorporated would not alter my view as the act specifically says that not more than five shall be located in any city, town, etc., of this State.

Yours very truly,

(Signed) W. A. STEVENS,
Attorney General."

Application was filed with the Department by Meyer A. Reubin, Esq., of New Brunswick on behalf of the New Brunswick Memorial Park Association for reversal of the decision of the board of health of Franklin Township, Somerset County, in refusing to grant consent to said Association to establish a cemetery in said Township on the Canal Road continuing on Easton Avenue just beyond the lands of the city of New Brunswick. Following the receipt of said application, a list was filed with the Department by the board of health of Franklin Township giving names and locations of eight cemeteries already located in the township, at least five of which are incorporated cemeteries. In view of said facts and of the above opinion of the Attorney General rendered on October 11, 1932, Mr. Reubin was informed

that the Department had no jurisdiction to consider the appeal in this case.

Application was made by Mr. Arthur S. Hough for a permit or license to install the proper equipment and engage in the business of cremation of dead human bodies in accordance with the provisions of Chapter 285 of the Laws of 1911, said crematorium to be located in a building to be constructed in connection with the dwelling now occupied by Mr. Hough at Ewing Cemetery near Trenton. A map of the premises filed by Mr. Hough showed that there was another dwelling located within 250 feet of the proposed crematorium, and a second dwelling located 600 feet from the said crematorium. The Attorney General was requested to advise the Department regarding Section 1 of Chapter 285 of the Laws of 1911, regulating the location of crematoriums, which provides that "no such license or permit shall be given to any person, firm or corporation to engage in or carry on any such business in any dwelling adjacent to or in the immediate vicinity of buildings used as dwellings." The Attorney General advised the Department that in his opinion the prohibition regarding the location of crematoriums adjacent to dwellings would apply in this case and that the Department would not be justified in granting a license to Mr. Hough.

Mr. Hough, therefore, had a bill introduced in the Legislature, Assembly Bill No. 176, which bill became a law, Chapter 84 of the Laws of 1933. This law gives discretion to the Department in the matter of granting a permit for the cremation of dead human bodies in a building adjacent to dwellings. In view of said new law, the matter was investigated by a special committee of the Department, and a permit was later issued to Mr. Hough to construct a crematorium in the basement of a building to be built in connection with his dwelling at Ewing.

HOSPITALS AND SANATORIUMS

A special committee of the Department conducted a hearing at Browns Mills, New Jersey, on June 23, 1932, regarding the applications of Mrs. F. Louise Leonard and Mr. Hilding A. Erickson for permission to establish tuberculosis nursing homes at Browns

BUREAU OF ADMINISTRATION

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Mills. Report was made by said special committee to the Department at its meeting on July 12, 1932, and it was on motion voted that permits be granted to Mrs. Leonard and Mr. Erickson to establish tuberculosis nursing homes in Browns Mills with the understanding that suitable fire escapes will be placed on said homes to prevent any hazard from fire.

Application was submitted by Mrs. Nancy F. Felton for permission to establish a hospital or sanatorium for cases of pulmonary tuberculosis in the Pig'n Whistle Inn at Browns Mills. A special committee of the Department held a hearing at Browns Mills on February 1, 1933, regarding said application, and at the meeting of the Department on February 7, 1933, it was on motion voted that a permit be granted to Mrs. Felton to establish a tuberculosis hospital or sanatorium as requested, subject to compliance with any recommendation of the Bureau of Engineering of the Department regarding the matter of the disposal of sewage from said building, and with the understanding that the State Department of Institutions and Agencies has approved of the building as to the hazard from fire.

Mr. Samuel Serman, Jr., of Old Bridge, presented application for permission to establish a convalescent home known as the "Health Home" for the care of arrested tuberculosis cases at 375-377 Ocean Avenue, Lakewood. A special committee of the Department was appointed to hold a hearing regarding said application, but Mr. Serman later withdrew this application and submitted another for permission to establish a tuberculosis home at a place known as "River Rest" located near Bound Brook, New Jersey. A hearing regarding the application was conducted by a special committee of the Department on the premises in question on June 2, 1933, and at the meeting of the Department on June 6, 1933, permission was granted to Mr. Serman to establish a tuberculosis home in the house known as "River Rest" located in Piscataway Township, Middlesex County, near Bound Brook, New Jersey, subject to the proviso that proper medical and nursing service for the patients be furnished, that necessary bath room facilities be provided, and that the regulations of the State Department of Institutions and Agencies in reference to the erection of fire escapes and other construction in the building be complied with.

An application was received from Mr. J. Havard Lloyd of Philadelphia for permission to establish a tuberculosis home at Pinewald near Toms River, Ocean County, New Jersey. May 25, 1933, was fixed as the time for a hearing on said application by a special committee of the Department at Pinewald, but Mr. Lloyd failed to appear at said hearing to present his application, and, therefore, no hearing was held and the application was declared void.

ANNUAL CONFERENCES

On February 10, 1933, the Twenty-third Annual Conference of State and Local Health Officials, called by the Director of Health, was held in the State House, Trenton, with sessions afternoon and evening. The conference proved very interesting and was apparently successful in every way, but due, doubtless largely to financial conditions, the attendance was much less than at the 1931 and 1932 conferences, there being about two hundred present. There were two hundred seventy present at the 1931 conference and three hundred six at the 1932 conference.

The conference was called to order by the Director of Health, J. Lynn Mahaffey, M. D., who extended a hearty welcome to the various representatives of local boards of health present.

The first paper at the afternoon session on the subject of "Proposed Legislation Dealing with Swimming Pools," was read by H. P. Croft, C. E., Chief of the Bureau of Engineering of the State Department of Health. The discussion on the subject was opened by Chester G. Wigley, Consulting Engineer, Atlantic City, formerly Chief of the Bureau of Engineering of the Department. Mr. Croft submitted a proposed bill for introduction at the 1933 session of the Legislature, and there was considerable discussion of the same, several of the Health Officers objecting to the bill because of the fact that it did not provide that authority be given to local health officials to regulate swimming pools as well as the State Department of Health.

Following the conference, the bill was amended to meet the objections of the local health officers regarding the point above mentioned as well as other features, but the bill was held up in committee in the Legislature and failed to pass.

Mr. Willaim H. MacDonald, Acting Chief of the Bureau of Local Health Administration, read a paper on the problem, "How Shall We Promote Diphtheria Immunization of Preschool Children." The discussion on this paper, offering "A Health Department's Solution," was opened by Mr. Frank J. Osborne, former Chairman of the New Jersey Committee for the Prevention of Diphtheria, Health Officer of East Orange. In further discussion of the paper, Samuel C. Haven, M. D., of Morristown offered "A Physician's Solution."

After the usual roll call of delegates by counties, a playlet featuring, first, the office of a District Health Officer, and second, a roadside stand, was presented.

The evening session was opened with moving pictures showing public health activities, after which Mr. Frederick L. Ferris, Editorial Writer of the Trenton Times, Trenton, read a paper on "Health Publicity and the Press."

"The Report of the Committee on the Cost of Medical Care and its Bearing on the Organization of Public Health Work," was presented by Haven Emerson, M. D., Professor of Public Health Practice and Executive Officer of the Delamar Institute of Public Health, Columbia University, New York City.

The Annual Meeting of the Health Officers' Association was held in the State House the next morning, February 11, 1933. At this meeting, in addition to the business session, the address of the retiring President, Mr. L. Van D. Chandler, Health Officer of Hackensack, was given, and the following named officers were elected for the coming year:

President, A. L. Stone, M. D., Camden; Vice-President, Dennis J. Sullivan, Jersey City; Secretary, William C. Blake, Princeton; Treasurer, N. J. R. Chandler, Plainfield; Members of the Executive Committee, W. W. Brooke, M. D., Bayonne; William H. MacDonald, Trenton; Amos Field, Jr., Kearny; R. C. Errickson, Long Branch; Edwin F. Stewart, M. D., Fair Haven; Budd H. Obert, Asbury Park; George N. Golding, Verona. Dr. Brooke was later chosen Chairman of the Committee.

The Fifty-eighth Annual Meeting of the New Jersey Health and Sanitary Association was held on December 9th and 10th, 1932, in the Monterey Hotel, Asbury Park, New Jersey. The

papers, addresses and discussions at the meeting proved very interesting, including a series of papers on the subject of "Experiences with Irradiated Milk and Milk from Cows Fed Irradiated Yeast," "Antirachitic Activation of Cow's Milk," "Soft Curd Milk—It's Production and Clinical Value," and "Special Milks—Health Department Administrative Problems," presented by experts in this line of work, together with papers on "Modern Laboratory Procedures and Products in the Control and Prevention of Communicable Diseases" with special reference to poliomyelitis experience and rabies in New Jersey, and "The Practical Application of Laboratory Knowledge in the Control and Prevention of Communicable Diseases."

On Saturday morning, December 10th, following the usual practice, a meeting of the Health Officers' Association of New Jersey was held in the hotel preceding the final business session of the New Jersey Health and Sanitary Association. At this meeting a very interesting paper on "Some Practical Problems in the Control of Syphilis" was read by Walter Clarke, M. D., Medical Director, American Social Hygiene Association, New York City.

Mr. Frank J. Osborne, Health Officer of East Orange, was elected President of the New Jersey Health and Sanitary Association for the coming year.

LEGISLATION

The following Bills of interest to health officials were introduced at the last session of the Legislature:

Senate Bill No. 21, providing for the marking of milk and cream used in New Jersey, showing place and date of production. This bill failed to pass.

Senate Bill No. 95, creating Interstate Sanitation Commission with New York State and Connecticut. This bill failed to pass.

Senate Bill No. 96, naming commissioners to represent New Jersey on Interstate Sanitation Commission and providing tri-State compact respecting pollution of New York Harbor and adjacent waters. This bill failed to pass.

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Senate Bill No. 133, repealing act permitting killing of trespassing dogs. This bill failed to pass.

Senate Bill No. 146, providing legal grades for eggs sold in New Jersey. This bill failed to pass.

Senate Bill No. 147, allowing licensing of farmers selling at public markets and fixing fee at \$1.00. This bill became a law, Chapter 77.

Senate Bill No. 177, prohibiting the sale of milk and cream after July 1, 1933, unless produced from cows having had tuberculin test. This bill passed both Houses of the Legislature.

Senate Bill No. 186, making issuance of fraudulent marriage certificate a misdemeanor. This bill failed to pass.

Senate Bill No. 188, authorizing counties and municipalities to construct and operate sewage disposal plants under conditions laid down by Reconstruction Finance Corporation. This bill became a law, Chapter 364.

Senate Bill No. 203, placing milk and milk products under jurisdiction of Public Utility Commission. This bill was withdrawn.

Senate Bill No. 204, including milk producing and distributing companies within definition of public utility. This bill failed to pass.

Senate Bill No. 206, permitting State Department of Health to enforce a plumbing code. This bill failed to pass.

Senate Bill No. 229, requiring license for handling narcotic drugs. The bill became a law, Chapter 186.

Senate Bill No. 270, allowing issuance of emergency permits for milk shipments to make sufficient supply available for municipalities and specifying fee. This bill failed to pass.

Senate Bill No. 282, requiring marking of containers of incubated eggs for sale. This bill failed to pass.

Senate Bill No. 290, providing that birth certificates under act for legitimation of children shall not reveal births out of wedlock. This bill became a law, Chapter 188.

Senate Bill No. 305, appropriating \$50,000 to the State Department of Agriculture to indemnify owners of cattle reacting to tuberculin test. This bill became a law, Chapter 133.

Senate Bill No. 309, requiring licenses to be obtained from State Department of Health by shippers sending milk into New Jersey. This bill became a law, Chapter 243.

Senate Bill No. 317, repealing Chapter 261, Laws of 1917, relating to pasteurizing by-products of creameries. This bill failed to pass.

Senate Bill No. 327, providing for licensing dealers buying and selling New Jersey milk and cream. This bill failed to pass.

Senate Bill No. 340, setting up new standards for Grade A milk and cream to be effective after July 1, 1933. This bill failed to pass.

Senate Bill No. 351, governing compounding of medical prescriptions to prevent adulteration. This bill became a law, Chapter 309.

Senate Bill No. 420, amending Milk Control Board act by striking from measure the words "within the State." This bill became a law, Chapter 255.

Assembly Bill No. 85, forbidding manufacture, sale or possession of offensive smelling bombs. This bill became a law, Chapter 94.

Assembly Bill No. 86, forbidding breaking or exploding of offensive smelling bombs with malicious intent. This bill became a law, Chapter 89.

Assembly Bill No. 110, directing Labor Department to license barbers and regulating barber trade. This bill was amended after introduction to provide that barbers shall be licensed and the barber trade regulated by the State Department of Health. This bill became a law, Chapter 175.

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Assembly Bill No. 120, authorizing local boards of health to compel examination of persons reported by State to have venereal diseases. This bill became a law, Chapter 261.

Assembly Bill No. 121, providing for admission to municipal and county hospitals of persons suffering from communicable diseases. This bill failed to pass.

Assembly Bill No. 144, providing tuberculosis examinations for prospective public school teachers. This bill failed to pass.

Assembly Bill No. 145, providing more thorough physical examination for school pupils. This bill failed to pass.

Assembly Bill No. 146, providing physical examinations for teachers in discretion of Boards of Education. This bill failed to pass.

Assembly Bill No. 149, requiring Hackensack Valley Sewer Commissioners to turn over records to the Hackensack River Sewerage Commission when latter is created. This bill failed to pass.

Assembly Bill No. 150, creating Hackensack River Sewerage Commission and defining jurisdiction. This bill became a law, Chapter 288.

Assembly Bill No. 167, providing for licensing of swimming pools by the State Department of Health. This bill failed to pass.

Assembly Bill No. 176, giving State Department of Health greater discretion in granting permits relating to the cremation of dead human bodies. This bill became a law, Chapter 84.

Assembly Bill No. 177, providing that copies of local vital statistics records dated prior to January 1, 1849, shall be filed in the State Bureau of Vital Statistics. This bill failed to pass.

Assembly Bill No. 210, extending anti-pollution protection to that section of the Passaic River between Little Falls and Great Falls. This bill failed to pass.

Assembly Bill No. 214, allowing extension of school health service to pre-school children. This bill failed to pass.

Assembly Bill No. 238, requiring Chancery Court to grant extension of time to municipality ordered to construct sewage disposal plant if municipality is financially unable to carry out order. This bill became a law, Chapter 50.

Assembly Bill No. 289, prohibiting sale of barbital or any other hypnotic drug except in certain cases. This bill was withdrawn.

Assembly Bill No. 291, regulating manufacture and sale of carbonated beverages. This bill failed to pass.

Assembly Bill No. 308, making owner of dog liable for damages if animal bites person while victim is in a public place or lawfully in a private place. This bill failed to pass.

Assembly Bill No. 317, providing for sterilization of inmates of certain institutions. This bill failed to pass.

Assembly Bill No. 327, regulating practice of naturopathy. This bill failed to pass.

Assembly Bill No. 363, providing for the manufacture and sale of milk caps by the State Department of Health and prohibiting the sale of milk unless capped as specified. This bill failed to pass.

Assembly Bill No. 364, specifying maximum bacteria content for milk and allowing pasteurization only once. This bill failed to pass.

Assembly Bill No. 368, forbidding the sale of adulterated ice cream products. This bill became a law, Chapter 271.

Assembly Bill No. 369, adding ice cream containers to the list upon which proprietary designations are permitted. This bill passed both Houses of the Legislature.

Assembly Bill No. 374, regulating sale of barbital and other hypnotic drugs. This bill became a law, Chapter 279.

Assembly Bill No. 383, regulating planting of foreign oysters and other shellfish in New Jersey waters. This bill became a law, Chapter 345.

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Assembly Bill No. 392, compelling reports on tuberculosis sanatorium patients to be made direct to State Health Department. This bill failed to pass.

Assembly Bill No. 402, providing for segregation of persons suspected by county health officers of having contagious diseases. This bill failed to pass.

Assembly Bill No. 420, providing that at least one member of the State Department of Health shall be actively engaged in the business of oyster planting. This bill failed to pass.

Assembly Bill No. 448, regulating the embalming and burial of bodies brought into New Jersey from without the State. This bill failed to pass.

Assembly Bill No. 469, creating a State Milk Control Board. This bill became a law, Chapter 169.

Assembly Bill No. 491, regulating the sale of eggs. This bill failed to pass.

Assembly Bill No. 506, permitting municipalities to condemn land for hospitals. This bill became a law, Chapter 356.

Assembly Bill No. 525, requiring licensing of persons gathering clams and oysters. This bill failed to pass.

Assembly Bill No. 537, providing that expenses under act to regulate barbering be defrayed from funds received pursuant to the act. This bill became a law, Chapter 359.

FINANCIAL STATEMENT SHOWING EXPENDITURES BY BUREAUS OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1933

<i>Bureaus</i>	<i>Payrolls</i>	<i>Traveling Expense</i>	<i>Stationery</i>	<i>Office Equipment</i>	<i>Telephone and Telegraph</i>	<i>Printing</i>	<i>Sundry</i>	<i>Auto Maint.</i>	<i>Tabulating Machine Maint.</i>	<i>Laboratory Supplies</i>
Administration	\$23,469	\$1,575	\$424	\$206	\$98	\$321	\$525	.....	.....	.....
Vital Statistics	28,320	22	452	213	40	1,608	70	.....	\$979	.....
Local Health Administration.....	39,215	621	181	.....	102	129	148	\$779	168	.....
Food and Drugs	32,058	10,666	113	.....	16	359	162	.....	.....	\$102
Engineering	45,958	3,935	402	168	92	189	247	1,559	.....	188
Chemistry	27,270	375	205	.....	19	135	195	701	.....	2,665
Bacteriology	27,927	96	211	62	110	16	188	.....	.....	5,271
Public Health Education.....	4,500	212	.....	.....	.....	62	431	.....	.....	.....
Total Thus Far:	\$228,717	\$17,502	\$1,988	\$649	\$477	\$2,819	\$1,966	\$3,039	\$1,147	\$8,226
Child Hygiene	87,144	19,551	380	364	53	1,627	193	.....	.....	.....
V. D. Control	16,020	2,396	178	44	46	40	275	.....	.....	.....
Total of Columns	\$331,881	\$39,449	\$2,546	\$1,057	\$576	\$4,486	\$2,434	\$3,039	\$1,147	\$8,226

FINANCIAL STATEMENT SHOWING EXPENDITURES BY BUREAUS OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY FOR THE YEAR ENDING JUNE 30, 1933—Continued

<i>Bureaus</i>	<i>Laboratory Equipment</i>	<i>Boat Maint.</i>	<i>Rentals</i>	<i>Engineering Equipment</i>	<i>Clinic Equipment</i>	<i>Welfare Station Equipment</i>	<i>Raritan River Investigation</i>	<i>Postage</i>	<i>Payments for Blood</i>	<i>Total by Bureaus</i>
Administration										\$26,618
Vital Statistics										31,704
Local Health Administration			\$145						\$380	41,868
Food and Drugs										43,476
Engineering				\$1,227			\$3,551			57,516
Chemistry	\$370	\$1,413								33,348
Bacteriology										33,881
										5,205
Total Thus Far:	\$370	\$1,413	\$145	\$1,227			\$3,551		\$380	\$273,616
Child Hygiene			60			\$565		\$545		110,482
V. D. Control					\$4,977					23,976
Total of Columns	\$370	\$1,413	\$205	\$1,227	\$4,977	\$565	\$3,551	\$545	\$380	\$408,074

BUREAU OF ADMINISTRATION

Report of the Bureau of Local Health Administration

For the Year Ending June 30, 1933

WILLIAM H. MACDONALD, ACTING CHIEF

Investigation of outbreaks of communicable diseases, recording of data pertaining to the prevalence of these diseases and the application of measures designed to prevent their occurrence and spread constitute the basic activities of this Bureau.

During the calendar year of 1932 there were received from the 563 local boards of health in New Jersey, reports of 66,610 cases of the 32 diseases declared reportable in Chapter VI of the State Sanitary Code. This is slightly below the total number of cases of these diseases reported in the preceding year.

Although it is expected the annual prevalence of any communicable disease will fluctuate to some degree, New Jersey for several years past has experienced a decline in the rate of occurrence of both typhoid fever and diphtheria. This decline continued in 1932. The reduction in the case rate of typhoid fever for the year was slight; however, both the annual case and death rates from this disease reached the new low levels of 6.37 and .68 per 100,000, respectively. In diphtheria, although the reduction was not as marked as in the preceding year, the case and death rates for 1932 (33.12 and 2.29 per 100,000) were new low records.

It is encouraging to note that the diphtheria rates for 1932 are only about one-fifth as high as the corresponding rates of five years ago. There can be no question that the marked reduction in diphtheria in New Jersey during the past decade is chiefly due to the extensive use of toxin-antitoxin and toxoid. However, one thousand four hundred and three cases of diphtheria, causing ninety-seven deaths, occurred in the State last year, over fifty per

cent. of the deaths being among children less than five years old. Therefore, the use of toxin-antitoxin and toxoid should continue if the advantage gained in diphtheria prevention is to be enhanced or even retained and in order to secure the greatest value in further preventing sickness and death from this disease, the use of these immunizing agents should be particularly stressed among children below five years old.

Scarlet fever, although comparable to diphtheria in many respects, has not been attacked from the standpoint of widespread immunizations, and the prevalence of this disease, judging from case reports, has been reduced only a very little during the past decade. The death rate from this disease, however, has lowered.

Measles and whooping cough continue to exact their toll, particularly among young children. Seventy-eight per cent. of the deaths from measles and ninety-six per cent. of deaths from whooping cough in 1932 were in children less than five years of age. Of the 32 diseases declared reportable by the State Sanitary Code, whooping cough last year stood third as a cause of death. It was exceeded by pneumonia and tuberculosis.

The 1932 death rate from tuberculosis of all forms reached a new low record of 60.65 per 100,000. The number of new cases of tuberculosis reported was also less than in previous years.

Tables giving detailed data about the distribution and prevalence of the reportable diseases for the calendar year 1932, as contained in official reports, are given later in this report.

Rabies in Animals—While rabies in animals has been reportable to local boards of health by law since 1915, no system had been in effect whereby reports of these cases reached the State Department of Health nor any other central agency. In April, 1932, the State Department of Health passed a resolution in accordance with authority granted it by law, calling upon local boards of health to report weekly each case of rabies in an animal of which such board had knowledge. Forms were furnished local boards of health for use in forwarding such reports. From the date of this resolution to December 31, 1932, reports were received of 222 cases of rabies in animals. Over eighty per cent. of these cases were reported by boards of health in the counties of Essex, Bergen, Passaic, Union and Middlesex.

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Number of Cases of Rabies in Animals reported by Local Boards of Health,
by Counties and by months, April-December, 1932.

County	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Atlantic	0	0	2	0	0	0	0	0	0	2
Bergen	0	8	10	3	2	6	2	2	2	35
Burlington	0	0	0	2	0	0	0	0	0	2
Camden	0	0	0	0	0	0	0	0	0	0
Cape May ...	0	0	0	0	0	0	0	0	0	0
Cumberland ..	0	0	0	0	0	0	0	0	0	0
Essex	2	8	11	8	7	0	8	3	5	52
Gloucester	0	0	0	0	0	0	0	0	0	0
Hudson	1	2	3	0	2	1	1	3	1	14
Hunterdon ...	0	0	0	0	0	0	0	1	0	1
Mercer	0	1	1	0	0	0	0	0	0	2
Middlesex ...	0	2	3	4	2	3	4	1	1	20
Monmouth	0	0	0	0	0	0	0	0	0	0
Morris	0	1	0	0	1	2	0	2	1	7
Ocean	0	0	1	0	0	0	0	0	0	1
Passaic	0	24	9	3	1	1	3	6	2	49
Salem	0	0	0	0	0	0	0	0	0	0
Somerset	0	1	2	1	3	0	0	0	1	8
Sussex	0	2	0	1	1	0	0	0	0	4
Union	4	5	4	4	2	3	1	0	2	25
Warren	0	0	0	0	0	0	0	0	0	0
Total	7	54	46	26	21	16	19	18	15	222

By these rabid animals many persons were bitten and as a preventive of rabies, underwent the inconvenience and bore the expense of taking Pasteur treatments. Three fatal cases of rabies in humans were reported during the year. Each of these fatal cases was in a male, one 6 years of age, one 11 and one 13 years old. None of these persons received anti-rabic injections after having been bitten by a rabid animal.

The provisions of Chapter 66, Laws of 1930, require that physicians and others report to local boards of health the names and addresses of persons bitten by dogs irrespective of whether the animals are suspected to have rabies. Seven thousand, eight hundred and nine such cases were reported to local boards of health during 1932.

Investigation of Outbreaks—Detailed investigation to determine the probable source of infection of cases of communicable diseases is one of the most important factors in any program designed to

prevent the spread of these diseases. While such investigations are made as a routine in communities having progressive health departments, in a great number of the smaller communities such investigations either are incomplete or are entirely neglected. In order to partly make up this deficiency, employees in the Bureau, in addition to the investigation of extensive local outbreaks, also make investigation when practical of scattered cases of certain communicable diseases. During the fiscal year ending June 30, 1933, employees in the Bureau investigated in the field 355 such cases in 145 municipalities.

Typhoid Fever—Sixty-six cases of typhoid fever in 46 municipalities were investigated. All these cases were scattered except a group of eight centering in a village in Bedminster Township, Somerset County. Five of these eight cases were judged to have resulted from infection received from earlier cases in these families before the true character of the illness was recognized. No definite source of infection for the earlier cases was proven; however, it was found by inspection and by analysis the well from which water was regularly used by these persons was polluted.

Gastro Enteritis caused by Ice Cream—An extensive outbreak of gastro enteritis caused by eating contaminated coffee ice cream occurred in nine municipalities in the northeastern part of the State early in April. Known cases numbered 78.

Investigation brought to light facts which indicated that a small quantity of custard which had been improperly stored and then accidentally added to one freezer of a large batch of coffee ice cream had been the cause of the outbreak. Portions of this lot, when tested in the laboratory of the Department, contained from 300,000,000 to over a billion bacteria per cubic centimeter. Organisms present included staphylococci, streptococci and bacilli. Some of these were capable of producing toxic products.

The manufacturer of the ice cream removed unsold portions of the batch from dealers cabinets promptly, thus preventing the use of much of it.

The occurrence of these cases of illness proves once more that great care should be exercised by manufacturers of foods to which custards are added to prepare this product in a clean manner, cool it promptly and keep it cold until consumed.

Gastro enteritis attributed to Raw Milk—An outbreak of gastro enteritis which occurred at Blair Academy in September was attributed to the use of raw milk used at the school at that time. Medical attention was required in 32 cases and it was found during the investigation that some 80 persons at the school had been affected with acute diarrhea, with or without other indications of illness.

The fact that two of the cases occurred in families of employees of the Academy who used the same milk but no other food in common with the school was an added check on the accuracy of the epidemiological evidence pointing to milk as the vector of infection. The original source of contamination of the milk was not proved.

Acute Anterior Poliomyelitis—This disease again assumed a mildly epidemic form in the State during the summer and fall of 1932, in spite of the fact that the outbreak in 1931 was the largest since the widespread epidemic of 1916. In 1931, the cases which occurred in the northern part of the State far exceeded the number reported from the southern section; in 1932, on the other hand, the southern counties, into which there is greater movement of population from Philadelphia and the nearby metropolitan section in New Jersey, were chiefly affected. A slight increase in the number of reported cases of this disease was noted in July but the definite increase above normal occurred during the first week in August. The peak in the number of case reports received weekly was reached on the seventh week following, after which the prevalence of the disease gradually dropped to normal. During the period from July 1st to December 31st, three hundred and thirty-nine cases and thirty-eight deaths were recorded. The indicated fatality rate based on these records was 11.21. One hundred and thirteen of the reported cases were in persons less than five years old, one hundred and twenty-one patients were from 5-9 years of age, eighty-six from 10-19 years and nineteen were over 20 years of age. The number of reported cases among males was more than 22 per cent. greater than the number among females.

Following the policy established in 1931, anti-poliomyelitis convalescent serum was made available to physicians at local distributing stations for use in treating persons affected with the disease. A call for donors of blood was made, valuable co-operation in this again being rendered by the New Jersey Crippled Children's Commission. Blood collecting clinics were held in Camden and Atlantic City at which about 15,000 cubic centimeters of blood were given by 38 persons who had recovered from poliomyelitis. The E. R. Squibb and Sons Laboratory again generously volunteered to prepare serum from this blood.

At the time the call for donors was made no money was available to pay for blood and no person who gave blood did so with the understanding that payment would be received. Later, however, an emergency appropriation made it possible to offer each person who had given blood the sum of \$10.00.

Some convalescent serum remaining from the supply collected during 1931 was released to be administered by physicians as a possible preventive to children in contact with cases of infantile paralysis. Information collected is not sufficient to warrant a definite conclusion as to whether the material used was effective as a preventive.

Trachoma—The outbreak of trachoma early in 1932 resulted in problems of controlling this disease which carried over into the past fiscal year. In addition, the recurrence of signs in many treated cases at the orphanage from which the disease spread indicated that the infection was not under control.

When this became evident, arrangements were made for the re-examination of all children reported as having trachoma in 1932 and of home and school contacts of any new or recurrent cases discovered. As a result, it was found that 18 cases were still under treatment, 17 cases which were thought to be cured had again shown signs of the disease and 21 new cases had developed among contacts of those previously affected.

Treatment and operation if necessary were made available for all known cases. In this the orphanage authorities, State Board of Children's Guardians, various ophthalmologists and hospital clinics and numerous local boards of health joined to furnish proper care for the affected children, many of whom were indigent.

Trichinosis—The occurrence of 52 reported cases of trichinosis in the State during the year indicates that many persons do not heed the oft-repeated warning to cook thoroughly all pork and pork products. The largest outbreak of this disease occurred in Atlantic City in February, where 20 acute cases followed the eating of raw, or slightly cooked, home-made Italian sausage made from pork raised and slaughtered on a nearby farm.

Smaller outbreaks, each including from one to seven cases were reported from 10 other municipalities among persons who had eaten undercooked pork. In Paterson, three such outbreaks developed in July and December of 1932 and in May of 1933, including 13 cases in all.

Undulant Fever—During 1932, 36 cases of undulant fever were reported. Investigation was made of most of these cases either by employees in the Bureau or through local boards of health. The data collected in such investigations show that three of the patients evidently received infection outside of New Jersey and two others probably became infected out of the State. History of the kind of milk used prior to onset was obtained in 27 of the remaining cases. Twenty-one of these gave a history of using raw milk, 19 regularly and 2 occasionally. Five stated they had used only pasteurized milk and in one instance the use of any milk by the patient was denied.

Tularemia—Three cases of tularemia were reported during the calendar year. One was in a resident of Salem County who gave a history of cleaning a rabbit shot locally and who probably received infection from this animal. Another occurred in a resident of Cape May County in a person handling a rabbit killed in that county. The third case, a Union County resident, cleaned a rabbit obtained from a public market a few days prior to the onset of illness. This rabbit was found to have been part of a shipment from Illinois, and originated from a section of that State in which cases of tularemia were not uncommon.

During the latter part of the fiscal year another case of tularemia occurred in Bergen County in a person who shortly prior to illness dressed a rabbit which was part of a shipment from another point in the State of Illinois.

Malaria—During the calendar year there were reported but six cases of malaria in New Jersey. Four of these cases were reported from Monmouth County, one from Essex and one from Hudson. By investigation it was clearly established that at least five of these cases received infection outside New Jersey.

Rocky Mountain Fever—A case of rocky mountain spotted fever occurred during the summer of 1932 in a resident of Millville, Cumberland County, who evidently was infected locally.

Communicable Diseases on Dairies—Forty-seven dairy premises on which occurred fifty-three cases of certain communicable diseases, the infection of which may be transmitted through milk, were visited during the year by employees in the Bureau. From two of these dairies the sale of milk was prohibited temporarily by order from the State Department of Health and in one instance the sale of milk was discontinued voluntarily by the producer. In a few other instances milk from the premises on which the disease occurred was not accepted by the distributor during the continuance of the case thereon.

Assistance in Diagnosis—Although it is not the general practice in the Bureau to furnish assistance in the diagnosis of suspected cases of communicable diseases, except under unusual conditions, requests for such aid were complied with in 80 instances during the year. The diseases suspected included smallpox and chickenpox, typhoid and scarlet fever, typhus fever, diphtheria, poliomyelitis, trachoma, septic sore throat and rocky mountain spotted fever.

Typhoid Carriers—During the year there were added three carriers of typhoid bacilli to the list of such persons on file at this office. One of the carriers formerly listed died during the year. The place of residence and the present occupation of all carriers listed were checked during the year either by employees in the Bureau personally or through local health departments.

Diphtheria Immunization—No organized campaign was carried on by the Bureau during the year to urge the establishment of diphtheria immunization clinics. In the educational work which

was performed emphasis was chiefly placed upon the desirability of having children receive immunization rather than upon the establishment of clinics for this purpose. At the request of local communities, however, employees in the Bureau assisted in giving immunization treatments to 1,352 children in seventeen municipalities or institutions, and assisted in giving Schick tests to 2,362 children in twenty-five municipalities.

Special Investigations—Requests were received during the year to a greater extent than usual from citizens and local officials for the investigation of conditions generally classed as nuisances. While many such conditions complained of are trivial in character, and do not properly come within the scope of health department work, many relate to conditions which are in reality potentially dangerous to the public health. In spite of the fact that local boards of health are granted power by law to secure the abatement of nuisances detrimental to the public health, a number of boards, particularly in the smaller communities, neglect or delay taking action to secure the abatement of such conditions unless stimulated so to do by the State Health Department or by some other agency. Over 400 special investigations were made by employees in the Bureau during the year, a number of these involving inspection of groups of premises to locate violations of regulations of Chapter I of the State Sanitary Code. The conditions investigated, in addition to alleged or actual violations of Chapter I of the Code, included garbage dumps, mosquito breeding areas, conditions resulting from the keeping of animals, odors resulting from industries, etc. Inspection was made of several proposed cemetery sites and several proposed sites for tuberculosis hospitals.

Conferences on Health Subjects—Conferences with local health officials and others interested in local health administration constitutes a very important part of the Bureau's activities. Approximately 2,000 conferences with local health officials were held during the year by the personnel of the Bureau. At these conferences there were discussed a great variety of matters pertaining to the organization of local health departments and problems confronting such departments in the employment of personnel, adoption and enforcement of ordinances, establishment of measures to prevent

the spread of communicable diseases, abatement of nuisances, enforcement of regulations of certain chapters of the State Sanitary Code as well as many unusual problems confronting such officials.

There were also held over 4,000 conferences with officials other than health department agents, with physicians and citizens on subjects pertaining to public health and the administration of this work through organized agencies. Fifty meetings of local boards of health were attended, and a still greater number of meetings of other organizations and bodies at which public health matters were principally discussed. Thirty-three papers or talks on matters relating to health department activities coming within the scope of the Bureau were delivered.

District Health Officers—The policy established by the Department in 1919 in assigning employees in the Bureau of Local Health Administration as district health officers to certain sections of the State, was continued during 1932 but with modifications. Owing to limited appropriations no clerk was retained in any of the five district offices, except in the Monmouth County area where clerical aid was furnished by the County Board of Freeholders. No office quarters for district officers were maintained from State funds during the year. However, office space for this purpose was furnished in the Monmouth County area, the Atlantic County section and in the Bergen County section in county buildings by the respective County Board of Freeholders. Each of the five district officers was permitted to use a State owned car, but their travel expenses and auto repair and maintenance charges were borne by these employees. No district officer was assigned to the northwestern district proposed to include the counties of Sussex, Warren and Morris. Experience during the year demonstrated that the effectiveness of the work of district officers is materially lessened when there is no one at the local headquarters to receive emergency telephone calls and other requests for assistance and advice while the district officer is engaged in field work.

Eating Establishments—The Department at its meeting on March 7th, directed the preparation of regulations dealing with

sanitation at roadside stands and other establishments where food or drink is offered for sale to the public, and which would contain more detailed standards applying to such establishments than are now set forth in law. Accordingly a list of standards of sanitation which in the opinion of the Department should be applied at all such establishments as a minimum was prepared and adopted. These minimum standards are based upon general provisions now set forth in public health laws and in regulations of the State Sanitary Code. Although the standards as adopted do not in themselves have the force and effect of law, they are so worded that action for their violation may be taken by local boards of health under existing statutes or under the State Sanitary Code.

A circular containing these minimum standards was prepared and distributed to local boards of health. By direction of the Department, district health officers render such services as is practical in the inspection of eating establishments in the areas to which they are assigned. The general policy followed in such areas is to urge upon local boards of health that inspection be made of all food vending establishments to determine whether compliance is being made with the minimum standards. At the same time the services of the district officer are offered to the local board of health to make such inspections in the municipality either alone or in company with some representative of the local board of health, if the local health department does not desire to make such inspections independently. Up to the date of this report employees in the Bureau have inspected over 200 eating establishments. Samples of water from supplies used at these places are collected if suspected of being contaminated. Violations of the State Sanitary Code are brought to the attention of the local board of health.

Summer Camps—In areas in which district health officers operate each summer camp is inspected at least once a year. In other sections of the State inspection is made of such camps when and if practical. Although by the provisions of Chapter X of the State Sanitary Code, it is anticipated that local boards of health in municipalities in which camps are established will make inspection therein, this provision has had but very little effect upon camp

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sanitation. As a rule camps are established in townships in rural sections in which the local board of health does not employ a skilled health official who is willing to take the time to make such inspection. As a result the only inspections made at most camps by health officials are those made by the State Department of Health. While the majority of camp directors conscientiously endeavor to maintain a high standard of sanitation at the camps coming under their supervision, inspection of such camps rather frequently reveals conditions which have been overlooked or not sufficiently emphasized and which constitute a hazard to the health of campers.

Summer School for Health Officials—Eighteen students attended the summer courses in public health offered by Rutgers University and the State Department of Health in 1932. The eleven members of the advanced class completed the two-summer course in a satisfactory manner and received the Rutgers Certificate in Public Health.

REPORTED CASES OF ANTHRAX IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	0	0	0	0	0	0	0	0	0	0	0	0	0
10 to 14 years	0	0	0	0	0	0	0	0	0	0	0	0	0
15 to 19 years	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24 years	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 34 years	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 44 years	2	0	0	1	0	1	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	2	0	0	1	0	1	0	0	0	0	0	0	0

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REPORTED CASES AND DEATHS FROM ANTHRAX IN NEW JERSEY

For the Calendar Year 1932 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	0	0	0	0	0	0
10 to 14 years	0	0	0	0	0	0
15 to 19 years	0	0	0	0	0	0
20 to 24 years	0	0	0	0	0	0
25 to 34 years	0	0	0	0	0	0
35 to 44 years	2	1	0	0	2	1
45 to 54 years	0	0	0	0	0	0
55 to 64 years	0	0	0	0	0	0
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	2	1	0	0	2	1

REPORTED CASES OF CHICKENPOX IN NEW JERSEY

For the Calendar Year 1932 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	271	48	27	37	27	34	16	10	2	5	8	27	30
1 year	388	61	51	53	37	46	33	10	1	4	20	28	44
2 years	577	88	71	63	66	60	40	21	5	4	17	50	92
3 years	613	72	79	82	62	68	44	21	8	8	30	65	74
4 years	728	103	93	87	76	84	59	17	6	4	26	69	104
Under 5 years	2577	372	321	322	268	292	192	79	22	25	101	239	344
5 to 9 years	6879	747	956	792	716	703	495	77	18	27	333	816	1199
10 to 14 years	765	102	94	104	88	98	50	7	6	0	18	77	121
15 to 19 years	105	11	19	10	8	14	5	2	1	4	2	8	21
20 to 24 years	58	13	10	3	7	8	3	4	0	1	1	1	7
25 to 34 years	66	12	11	10	9	7	4	2	0	0	0	6	5
35 to 44 years	33	7	5	3	3	3	2	0	0	1	0	2	7
45 to 54 years	3	0	0	0	0	0	2	0	0	0	0	0	1
55 to 64 years	3	0	2	0	0	1	0	0	0	0	0	0	0
65 years and over	2	0	0	1	0	0	0	0	0	0	0	0	1
Age not stated	13	0	0	4	0	1	2	1	0	0	1	1	3
Total	10504	1264	1418	1249	1099	1127	755	172	47	58	456	1150	1709

REPORTED CASES AND DEATHS FROM CHICKENPOX IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	135	0	136	1	271	1
1 year	176	0	212	0	388	0
2 years	296	0	281	0	577	0
3 years	348	0	265	0	613	0
4 years	369	1	359	1	728	2
Under 5 years	1324	1	1253	2	2577	3
5 to 9 years	3564	0	3315	0	6879	0
10 to 14 years	378	1	387	0	765	1
15 to 19 years	52	0	53	0	105	0
20 to 24 years	29	0	29	0	58	0
25 to 34 years	41	0	25	0	66	0
35 to 44 years	25	0	8	0	33	0
45 to 54 years	3	0	0	0	3	0
55 to 64 years	3	0	0	0	3	0
65 years and over	2	0	0	0	2	0
Age not stated	7	0	6	0	13	0
Total	5428	2	5076	2	10504	4

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REPORTED CASES OF DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	22	0	4	2	2	4	1	0	1	0	3	4	1
1 year	73	10	8	8	8	10	5	2	1	4	2	6	9
2 years	100	17	6	15	9	10	9	5	4	4	6	8	7
3 years	122	13	15	12	12	11	10	7	8	6	11	5	12
4 years	117	10	9	13	9	16	9	7	6	8	11	10	9
Under 5 years	434	50	42	50	40	51	34	21	20	22	33	33	38
5 to 9 years	488	50	61	46	35	47	43	26	22	28	43	40	47
10 to 14 years	185	19	28	19	12	17	17	7	6	13	15	15	17
15 to 19 years	72	5	10	9	5	8	5	3	5	3	7	4	8
20 to 24 years	82	6	14	10	9	7	9	4	2	2	4	6	9
25 to 34 years	73	10	18	2	8	9	3	3	4	4	2	5	5
35 to 44 years	41	6	8	10	3	2	2	1	0	1	1	0	7
45 to 54 years	17	0	1	3	2	1	0	1	0	1	2	3	3
55 to 64 years	3	0	1	0	1	0	0	0	0	1	0	0	0
65 years and over	3	0	0	2	0	0	1	0	0	0	0	0	0
Age not stated	5	0	0	0	1	2	0	1	0	0	0	1	0
Total	1403	146	183	151	116	144	114	67	59	75	107	107	134

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	14	5	8	3	22	8
1 year	44	6	29	4	73	10
2 years	57	6	43	7	100	13
3 years	63	3	53	8	122	11
4 years	52	4	65	4	117	8
Under 5 years	236	24	198	26	434	50
5 to 9 years	242	16	246	13	488	29
10 to 14 years	94	2	91	4	185	6
15 to 19 years	30	2	42	1	72	3
20 to 24 years	20	0	62	0	82	0
25 to 34 years	26	0	47	0	73	0
35 to 44 years	14	1	27	4	41	5
45 to 54 years	4	1	13	2	17	3
55 to 64 years	0	0	3	1	3	1
65 years and over	1	0	2	0	3	0
Age not stated	2	0	3	0	5	0
Total	669	46	734	51	1403	97

REPORTED CASES OF DYSENTERY IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	0	1	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	0	1	0	0
5 to 9 years	0	0	0	0	0	0	0	0	0	0	0	0	0
10 to 14 years	0	0	0	0	0	0	0	0	0	0	0	0	0
15 to 19 years	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24 years	2	1	0	0	0	1	0	0	0	0	0	0	0
25 to 34 years	1	0	0	0	0	0	0	0	0	1	0	0	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	1	0	0	0	0	0	0	0	0	1	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	5	1	0	0	0	1	0	0	0	2	1	0	0

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REPORTED CASES AND DEATHS FROM DYSENTERY IN NEW JERSEY

For the Calendar Year 1932 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	1	0	0	0	1
2 years	0	1	0	0	0	1
3 years	0	0	1	0	1	0
4 years	0	0	0	0	0	0
Under 5 years	0	2	1	0	1	2
5 to 9 years	0	0	0	0	0	0
10 to 14 years	0	0	0	0	0	0
15 to 19 years	0	0	0	0	0	0
20 to 24 years	0	0	2	0	2	0
25 to 34 years	1	0	0	0	1	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	1	1	1	1
65 years and over	0	0	0	1	0	1
Age not stated	0	0	0	0	0	0
Total	1	2	4	2	5	4

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	11	0	2	1	0	0	1	0	1	2	3	0	1
1 year	7	2	2	1	1	0	1	0	0	0	0	0	1
2 years	7	0	0	0	0	0	0	2	0	0	2	2	1
3 years	2	1	0	0	0	1	0	0	0	0	0	0	0
4 years	1	0	1	0	0	0	0	0	0	0	0	0	0
Under 5 years	28	3	5	2	1	1	2	2	1	2	5	2	2
5 to 9 years	11	1	1	2	1	2	0	1	0	2	0	1	0
10 to 14 years	8	1	1	1	0	1	0	0	1	0	1	0	2
15 to 19 years	11	1	3	2	1	0	1	1	0	0	1	0	1
20 to 24 years	3	0	1	0	0	0	0	0	1	0	0	0	1
25 to 34 years	5	9	2	0	0	1	0	1	0	0	1	0	0
35 to 44 years	5	2	0	0	0	0	0	0	1	0	0	0	2
45 to 54 years	3	0	0	0	0	1	1	1	0	0	0	0	0
55 to 64 years	2	2	0	0	0	0	0	0	0	0	0	0	0
65 years and over	2	6	0	0	1	0	1	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	78	10	13	7	4	6	5	6	4	4	8	3	8

REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	4	2	7	7	11	9
1 year	5	3	2	0	7	3
2 years	4	2	3	0	7	2
3 years	1	0	1	0	2	0
4 years	0	0	1	0	1	0
Under 5 years	14	7	14	7	28	14
5 to 9 years	7	3	4	1	11	4
10 to 14 years	6	2	2	0	8	2
15 to 19 years	8	0	3	2	11	2
20 to 24 years	1	1	2	2	3	3
25 to 34 years	0	1	5	1	5	2
35 to 44 years	3	1	2	2	5	3
45 to 54 years	2	2	1	0	3	2
55 to 64 years	2	0	0	0	2	0
65 years and over	1	0	1	1	2	1
Age not stated	0	0	0	0	0	0
Total	44	17	34	16	78	33

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REPORTED CASES OF GERMAN MEASLES IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	41	4	2	6	6	5	4	1	4	4	2	0	3
1 year	50	5	5	4	6	8	3	4	5	2	1	2	5
2 years	27	3	4	1	4	3	0	3	1	0	1	1	1
3 years	41	3	2	4	6	5	6	1	2	2	1	5	4
4 years	36	4	6	2	6	3	5	4	1	1	1	2	1
Under 5 years	195	19	19	17	28	24	21	10	15	13	5	10	14
5 to 9 years	222	23	17	24	25	44	29	18	1	4	10	15	12
10 to 14 years	71	8	9	10	14	5	9	5	0	2	3	3	3
15 to 19 years	12	2	2	1	2	0	0	0	1	0	1	2	1
20 to 24 years	6	1	0	1	1	2	0	1	0	0	0	0	0
25 to 34 years	5	0	0	0	2	0	1	0	0	0	0	2	0
35 to 44 years	1	0	0	1	0	0	0	0	0	0	0	0	0
45 to 54 years	1	0	1	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	1	0	0	0	0	6	0	0	0	0	1	0	0
Total	514	53	48	54	72	75	60	34	17	19	20	32	30

REPORTED CASES AND DEATHS FROM GERMAN MEASLES IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	14	0	27	0	41	0
1 year	27	0	23	0	50	0
2 years	15	0	12	0	27	0
3 years	26	0	15	0	41	0
4 years	19	0	17	0	36	0
Under 5 years	101	0	94	0	195	0
5 to 9 years	108	0	114	0	222	0
10 to 14 years	39	0	32	0	71	0
15 to 19 years	5	0	7	0	12	0
20 to 24 years	3	0	3	0	6	0
25 to 34 years	3	0	2	0	5	0
35 to 44 years	1	0	0	0	1	0
45 to 54 years	0	0	1	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	0	0	1	0	1	0
Total	260	0	254	0	514	0

REPORTED CASES OF INFLUENZA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	21	0	5	3	1	1	1	0	0	0	2	1	7
1 year	30	1	5	6	2	0	0	0	0	2	1	2	11
2 years	39	1	8	8	4	0	1	0	1	0	6	0	10
3 years	37	2	6	12	3	3	0	2	0	0	0	2	7
4 years	42	3	3	20	3	1	0	0	0	0	2	3	7
Under 5 years	169	7	27	49	13	5	2	0	3	2	11	8	42
5 to 9 years	176	4	39	55	12	6	2	1	0	0	6	7	44
10 to 14 years	213	1	26	156	7	5	1	0	0	1	4	2	10
15 to 19 years	181	0	30	107	9	2	1	0	2	1	3	0	26
20 to 24 years	151	8	24	51	11	4	2	1	0	5	7	4	34
25 to 34 years	284	9	37	106	15	1	5	1	1	4	11	9	85
35 to 44 years	323	11	40	126	22	7	6	3	5	0	7	12	84
45 to 54 years	190	6	32	67	18	8	2	0	2	0	3	5	47
55 to 64 years	144	10	16	62	9	8	1	1	0	2	7	6	22
65 years and over	172	13	9	96	22	9	0	1	0	1	4	2	15
Age not stated	3	0	0	1	1	0	0	0	0	0	0	0	1
Total	2006	69	280	876	139	55	22	8	13	16	63	55	410

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM INFLUENZA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	15	15	6	18	21	33
1 year	19	9	11	9	30	18
2 years	21	5	18	5	39	10
3 years	18	2	19	4	37	6
4 years	24	3	18	2	42	5
Under 5 years	97	34	72	38	169	72
5 to 9 years	95	7	81	9	176	16
10 to 14 years	158	8	55	3	213	11
15 to 19 years	126	11	55	12	181	23
20 to 24 years	61	5	90	11	151	16
25 to 34 years	138	11	146	15	284	26
35 to 44 years	147	29	176	41	323	70
45 to 54 years	91	43	99	25	190	68
55 to 64 years	71	42	73	36	144	78
65 years and over	88	84	84	131	172	215
Age not stated	1	0	2	0	3	0
Total	1073	274	933	321	2006	595

REPORTED CASES OF LETHARGIC ENCEPHALITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year	1	0	1	0	0	0	0	0	0	0	0	0	0
2 years	3	2	0	1	0	0	0	0	0	0	0	0	0
3 years	2	0	0	0	0	0	0	1	1	0	0	0	0
4 years	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years	6	2	1	1	0	0	0	1	1	0	0	0	0
5 to 9 years	6	1	1	1	0	0	0	0	2	0	1	0	0
10 to 14 years	2	0	0	0	0	0	0	1	0	0	1	0	0
15 to 19 years	4	0	0	1	0	0	0	2	0	0	0	1	0
20 to 24 years	2	1	0	0	0	0	0	0	0	0	0	1	0
25 to 34 years	7	0	0	1	2	0	0	1	1	1	1	0	0
35 to 44 years	6	1	0	0	0	0	0	0	3	1	0	0	1
45 to 54 years	8	1	0	1	0	0	1	1	2	1	0	0	1
55 to 64 years	0	0	0	0	0	0	0	0	0	0	0	0	0
65 years and over	2	1	0	0	0	0	0	1	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	43	7	2	5	2	0	1	7	9	3	3	2	2

REPORTED CASES AND DEATHS FROM LETHARGIC ENCEPHALITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 year	1	1	0	0	1	1
2 years	0	0	3	1	3	1
3 years	1	0	1	1	2	1
4 years	0	0	0	0	0	0
Under 5 years	2	1	4	2	6	3
5 to 9 years	4	1	2	1	6	2
10 to 14 years	2	1	0	0	2	1
15 to 19 years	1	1	3	0	4	1
20 to 24 years	0	2	2	3	2	5
25 to 34 years	3	0	4	3	7	3
35 to 44 years	3	4	3	3	6	7
45 to 54 years	3	2	5	1	8	3
55 to 64 years	0	2	0	3	0	5
65 years and over	2	3	0	2	2	5
Age not stated	0	0	0	0	0	0
Total	20	17	23	18	43	35

DEPARTMENT OF HEALTH

REPORTED CASES OF MEASLES IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	355	13	13	28	53	70	52	36	13	12	16	23	26
1 year	759	20	32	54	106	76	150	59	34	13	19	42	54
2 years	957	20	29	62	132	239	200	111	37	18	15	32	62
3 years	1095	22	30	72	203	294	191	104	34	4	23	51	67
4 years	1415	30	46	84	229	367	316	125	36	18	37	63	64
Under 5 years	4581	105	150	300	723	1146	909	435	154	65	110	211	273
5 to 9 years	9464	232	427	782	1754	2700	1851	532	76	69	211	323	507
10 to 14 years	1191	36	32	110	215	356	187	40	12	11	39	53	100
15 to 19 years	108	3	4	13	21	20	5	6	1	0	2	8	25
20 to 24 years	36	2	1	3	7	9	6	2	1	1	0	2	2
25 to 34 years	46	1	1	3	7	12	8	3	2	1	0	1	7
35 to 44 years	26	1	0	3	2	7	7	2	2	0	1	0	1
45 to 54 years	5	0	1	0	1	1	1	0	0	0	0	0	1
55 to 64 years	1	0	0	0	0	0	1	0	0	0	0	0	0
65 years and over	6	0	0	0	1	1	2	0	0	0	0	1	1
Age not stated	49	0	1	4	7	20	6	2	0	0	0	5	4
Total	15513	380	617	1218	2738	4272	2983	1022	248	147	363	604	921

REPORTED CASES AND DEATHS FROM MEASLES IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	176	6	179	4	355	10
1 year	369	8	390	5	759	13
2 years	502	4	455	1	957	5
3 years	536	2	559	0	1095	2
4 years	737	1	678	1	1415	2
Under 5 years	2320	21	2261	11	4581	32
5 to 9 years	4956	4	4508	4	9464	8
10 to 14 years	590	0	595	0	1191	0
15 to 19 years	51	0	57	1	108	1
20 to 24 years	13	0	23	0	36	0
25 to 34 years	20	0	26	0	46	0
35 to 44 years	11	0	15	0	26	0
45 to 54 years	4	0	1	0	5	0
55 to 64 years	1	0	0	0	1	0
65 years and over	4	0	2	0	6	0
Age not stated	30	0	19	0	49	0
Total	8006	25	7507	16	15513	41

REPORTED CASES OF MUMPS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	27	2	1	4	6	5	3	2	1	0	0	0	3
1 year	84	3	3	5	13	23	13	9	3	1	1	2	8
2 years	137	10	6	12	20	22	23	14	11	3	1	6	9
3 years	202	7	8	19	30	37	45	18	9	7	1	6	15
4 years	390	15	18	40	60	84	61	39	13	8	6	16	30
Under 5 years	840	37	36	80	129	171	145	82	37	19	9	30	65
5 to 9 years	4741	296	314	572	690	1092	950	175	65	52	75	259	311
10 to 14 years	1309	62	83	136	205	285	225	59	23	18	41	66	106
15 to 19 years	168	9	6	24	25	27	23	12	7	4	10	7	14
20 to 24 years	102	7	5	9	20	14	10	8	8	2	6	6	7
25 to 34 years	139	7	12	11	26	19	15	11	9	4	6	4	15
35 to 44 years	70	8	6	4	11	13	7	6	2	3	0	2	8
45 to 54 years	14	1	1	2	4	2	0	1	1	1	0	0	1
55 to 64 years	3	1	1	0	1	0	0	0	0	0	0	0	0
65 years and over	7	1	1	0	1	1	0	0	0	1	1	1	0
Age not stated	38	0	1	0	23	2	5	2	1	0	0	3	1
Total	7431	339	406	838	1135	1626	1360	356	153	104	148	378	528

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM MUMPS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	18	0	9	0	27	0
1 year	50	0	34	0	84	0
2 years	61	0	76	0	137	0
3 years	105	0	97	0	202	0
4 years	210	0	180	0	390	0
Under 5 years	444	0	396	0	840	0
5 to 9 years	2600	0	2141	0	4741	0
10 to 14 years	704	0	605	0	1309	0
15 to 19 years	98	0	75	1	168	1
20 to 24 years	44	0	58	0	102	0
25 to 34 years	58	0	81	0	139	0
35 to 44 years	27	0	43	0	70	0
45 to 54 years	6	0	8	0	14	0
55 to 64 years	0	0	3	0	3	0
65 years and over	3	1	4	0	7	1
Age not stated	15	0	23	0	38	0
Total	3994	1	3437	1	7431	2

REPORTED CASES OF PARA-TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	0	0	0	1
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	0	0	0	1
5 to 9 years	2	0	0	0	0	0	0	0	1	1	0	0	0
10 to 14 years	0	0	0	0	0	0	0	0	0	0	0	0	0
15 to 19 years	3	0	0	0	0	0	1	0	1	0	0	0	1
20 to 24 years	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 34 years	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 44 years	0	0	0	0	0	0	0	0	0	0	0	0	0
45 to 54 years	1	0	0	0	0	0	0	1	0	0	0	0	0
55 to 64 years	2	0	0	0	0	0	0	0	1	0	1	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	9	0	0	0	0	0	1	1	3	1	1	0	2

REPORTED CASES AND DEATHS FROM PARA-TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1932 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	2	0	0	0	2	0
10 to 14 years	0	0	0	0	0	0
15 to 19 years	3	0	0	0	3	0
20 to 24 years	0	0	0	0	0	0
25 to 34 years	0	0	0	0	0	0
35 to 44 years	0	0	0	0	0	0
45 to 54 years	0	0	1	0	1	0
55 to 64 years	2	2	0	0	2	2
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	8	2	1	0	9	2

DEPARTMENT OF HEALTH

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	431	36	30	49	51	73	30	17	7	12	21	26	79
1 year	311	34	24	36	43	55	31	8	8	5	9	18	40
2 years	208	19	22	26	16	43	19	2	5	8	7	11	30
3 years	161	18	15	20	28	7	6	1	1	11	9	30	30
4 years	129	10	12	13	20	28	11	4	3	2	6	9	11
Under 5 years	1240	117	103	139	150	227	98	37	24	28	54	73	190
5 to 9 years	541	47	47	84	57	85	29	15	8	11	31	50	77
10 to 14 years	214	22	29	59	25	15	6	3	4	3	10	12	26
15 to 19 years	201	18	37	46	19	12	5	4	7	7	8	13	25
20 to 24 years	205	25	16	36	19	12	6	8	7	11	15	20	30
25 to 34 years	441	55	52	96	46	22	11	5	9	17	19	27	82
35 to 44 years	443	51	54	89	50	38	12	10	9	16	22	35	57
45 to 54 years	405	51	38	98	41	28	14	15	9	13	18	29	51
55 to 64 years	388	45	42	88	40	23	11	13	10	17	18	18	53
65 years and over	565	60	66	152	69	25	23	11	14	11	27	36	71
Age not stated	15	1	3	2	3	1	1	0	0	2	0	0	2
Total	4658	492	487	889	519	488	226	121	101	136	222	313	664

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	238	305	193	231	431	536
1 year	163	78	148	72	311	150
2 years	114	26	94	21	208	47
3 years	87	23	74	8	161	31
4 years	69	11	60	9	129	20
Under 5 years	671	443	569	341	1240	784
5 to 9 years	292	31	240	30	541	61
10 to 14 years	115	13	99	22	214	35
15 to 19 years	120	42	81	29	201	71
20 to 24 years	106	39	99	32	205	71
25 to 34 years	231	99	210	86	441	185
35 to 44 years	263	167	180	113	443	280
45 to 54 years	245	201	160	119	405	320
55 to 64 years	198	206	190	179	388	385
65 years and over	259	353	306	386	565	739
Age not stated	9	0	6	0	15	0
Total	2509	1594	2149	1337	4658	2931

REPORTED CASES OF ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	4	0	1	0	0	0	0	0	2	1	0	0	0
1 year	24	1	0	0	0	0	0	2	8	11	1	0	1
2 years	32	2	1	0	0	1	0	1	6	16	4	0	1
3 years	28	0	0	0	0	1	0	3	9	8	5	2	0
4 years	34	0	0	0	0	1	1	2	13	13	3	1	0
Under 5 years	122	3	2	0	0	3	1	8	38	49	13	3	2
5 to 9 years	127	1	1	1	1	1	1	2	41	58	15	4	1
10 to 14 years	65	0	1	2	1	0	0	1	16	27	10	6	1
15 to 19 years	26	0	1	0	0	0	0	0	4	14	6	1	0
20 to 24 years	11	0	0	0	0	0	0	0	0	6	4	1	0
25 to 34 years	6	0	0	0	0	1	0	0	1	1	2	0	1
35 to 44 years	2	0	0	1	0	0	0	0	0	1	0	0	0
45 to 54 years	1	0	0	0	0	0	0	0	0	1	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	1	0	0	0	0	0	0	0	0	1	0	0	0
Total	361	4	5	4	2	5	2	11	100	158	50	15	5

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	2	1	2	0	4	1
1 year	13	0	11	1	24	1
2 years	16	1	16	5	32	6
3 years	12	1	16	2	28	3
4 years	22	1	12	1	34	2
Under 5 years	65	4	57	9	122	13
5 to 9 years	71	7	56	8	127	15
10 to 14 years	36	4	29	4	65	8
15 to 19 years	18	1	8	1	26	2
20 to 24 years	7	6	4	2	11	8
25 to 34 years	5	0	1	0	6	0
35 to 44 years	0	0	2	0	2	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 note stated	0	0	1	0	1	0
Total	203	22	158	24	361	46

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	45	9	5	9	5	1	7	0	1	1	3	2	2
1 year	153	17	18	21	17	20	16	6	2	2	7	14	13
2 years	359	37	56	59	52	40	17	14	7	11	13	21	32
3 years	537	52	55	93	75	53	40	22	12	16	27	40	52
4 years	655	68	73	82	102	80	48	27	10	17	32	58	58
Under 5 years	1749	183	207	264	251	194	128	69	32	47	82	135	157
5 to 9 years	4292	436	494	621	597	597	367	74	55	95	217	286	453
10 to 14 years	1944	168	207	300	281	222	171	40	26	31	82	121	195
15 to 19 years	525	38	63	101	86	81	38	7	6	8	19	25	53
20 to 24 years	294	26	31	45	30	38	38	9	6	3	8	17	36
25 to 34 years	387	29	42	68	54	58	38	14	7	6	9	27	35
35 to 44 years	162	16	16	36	23	25	15	1	1	1	8	7	13
45 to 54 years	38	5	3	7	5	5	1	1	2	1	2	1	5
55 to 64 years	5	0	1	0	3	0	0	1	0	0	0	0	0
65 years and over	2	0	0	0	0	1	1	0	0	0	0	0	0
Age not stated	25	2	5	4	2	5	2	1	1	0	0	2	1
Total	9423	903	1069	1446	1341	1326	797	217	136	192	427	621	948

REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	24	4	21	1	45	5
1 year	77	2	76	2	153	4
2 years	192	1	167	5	359	6
3 years	258	3	279	2	537	5
4 years	310	4	345	3	655	7
Under 5 years	861	14	888	13	1749	27
5 to 9 years	2069	6	2223	9	4292	15
10 to 14 years	1161	3	783	5	1944	8
15 to 19 years	250	2	275	5	525	7
20 to 24 years	107	2	187	3	294	5
25 to 34 years	141	2	246	5	387	7
35 to 44 years	55	4	107	0	162	4
45 to 54 years	16	0	22	0	38	0
55 to 64 years	2	0	3	0	5	0
65 years and over	1	0	1	0	2	0
Age not stated	14	0	11	0	25	0
Total	4677	33	4746	40	9423	73

DEPARTMENT OF HEALTH

REPORTED CASES OF TETANUS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	1	0	0	0	0	0	0	0	1	0	0	0	0
Under 5 years	1	0	0	0	0	0	0	0	1	0	0	0	0
5 to 9 years	5	0	0	0	0	1	1	0	1	1	1	0	0
10 to 14 years	2	0	0	0	0	0	0	0	0	2	0	0	0
15 to 19 years	1	0	0	0	0	1	0	0	0	0	0	0	0
20 to 24 years	2	1	0	0	0	0	0	1	0	0	0	0	0
25 to 34 years	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 44 years	1	0	0	1	0	0	0	0	0	0	0	0	0
45 to 54 years	2	0	0	0	1	0	0	1	0	0	0	0	0
55 to 64 years	1	0	1	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	15	1	1	1	1	2	1	2	2	3	1	0	0

REPORTED CASES AND DEATHS FROM TETANUS IN NEW JERSEY

For the Calendar Year 1932 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	1	1	1	1
Under 5 years	0	0	1	1	1	1
5 to 9 years	4	2	1	2	5	4
10 to 14 years	2	5	0	0	2	5
15 to 19 years	7	2	0	0	7	2
20 to 24 years	2	1	0	0	2	1
25 to 34 years	0	2	0	1	0	3
35 to 44 years	0	2	1	0	1	2
45 to 54 years	2	4	0	0	2	4
55 to 64 years	1	0	0	0	1	0
65 years and over	0	1	0	0	0	1
Age not stated	0	0	0	0	0	0
Total	12	19	3	4	15	23

REPORTED CASES OF TRACHOMA IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year	1	1	0	0	0	0	0	0	0	0	0	0	0
2 years	1	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years	2	1	0	0	0	0	0	0	0	0	0	0	1
5 to 9 years	40	0	0	0	0	19	18	2	0	1	0	0	0
10 to 14 years	58	1	1	1	3	32	17	2	1	0	0	0	0
15 to 19 years	10	0	0	0	0	5	5	0	0	0	0	0	0
20 to 24 years	1	0	0	0	0	0	1	0	0	0	0	0	0
25 to 34 years	2	1	0	0	0	0	0	1	0	0	0	0	0
35 to 44 years	3	2	0	0	0	0	0	1	0	0	0	0	0
45 to 54 years	4	0	0	0	0	0	0	1	0	0	1	0	2
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	120	5	1	1	3	56	41	6	2	1	1	0	3

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM TRACHOMA IN NEW JERSEY

For the Calendar Year 1932 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	1	0	1	0
2 years	0	0	1	0	1	0
3 years	0	0	0	0	0	0
4 years	0	0	0	0	0	0
Under 5 years	0	0	2	0	2	0
5 to 9 years	38	0	2	0	40	0
10 to 14 years	58	0	0	0	58	0
15 to 19 years	10	0	0	0	10	0
20 to 24 years	1	0	0	0	1	0
25 to 34 years	1	0	1	0	2	0
35 to 44 years	1	0	2	0	3	0
45 to 54 years	2	0	2	0	4	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	111	0	9	0	120	0

REPORTED CASES OF TRICHINOSIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	3	0	0	0	0	0	1	0	0	0	0	0	2
10 to 14 years	3	0	0	0	0	0	2	0	0	0	0	0	1
15 to 19 years	6	0	0	0	0	0	1	0	0	1	1	1	3
20 to 24 years	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 34 years	2	0	1	0	0	0	0	0	0	0	0	0	1
35 to 44 years	1	0	0	0	0	0	0	0	0	0	0	0	1
45 to 54 years	2	0	0	0	0	0	1	0	0	0	0	0	1
55 to 64 years	1	0	0	0	0	0	1	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	18	0	1	0	0	0	6	0	0	1	1	1	9

REPORTED CASES AND DEATHS FROM TRICHINOSIS IN NEW JERSEY

For the Calendar Year 1932 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	2	0	3	0
10 to 14 years	1	0	2	0	3	0
15 to 19 years	4	0	2	0	6	0
20 to 34 years	1	0	1	0	2	0
25 to 34 years	1	0	1	0	1	0
35 to 44 years	0	0	1	0	1	0
45 to 54 years	2	0	0	0	2	0
55 to 64 years	0	0	1	1	1	1
65 years and over	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0
Total	9	0	9	1	18	1

DEPARTMENT OF HEALTH

REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Under 1 year	29	1	1	2	5	1	4	1	0	1	4	5	4
1 year	21	1	1	1	4	1	3	4	0	1	1	3	1
2 years	25	5	0	1	2	4	0	2	4	1	3	0	3
3 years	14	3	2	2	1	0	1	2	1	2	0	0	0
4 years	23	3	2	2	2	2	2	0	4	1	1	2	2
Under 5 years	112	13	6	8	14	8	10	9	9	6	9	10	10
5 to 9 years	161	17	14	14	15	8	18	17	10	11	9	14	14
10 to 14 years	234	26	17	28	21	24	23	23	14	22	12	10	14
15 to 19 years	431	34	28	45	53	35	47	41	36	20	34	25	33
20 to 24 years	619	36	55	57	60	58	59	44	71	52	42	43	42
25 to 34 years	1037	101	82	81	104	100	87	66	80	94	81	69	92
35 to 44 years	793	61	63	76	84	56	75	48	66	65	68	76	55
45 to 54 years	598	54	54	52	66	49	51	36	45	55	48	38	50
55 to 64 years	339	30	23	24	37	32	32	24	20	28	28	29	32
65 years and over	207	10	19	14	19	21	19	14	18	14	19	16	24
Age not stated	9	1	1	2	0	1	1	0	2	1	0	0	0
Total	4540	383	362	401	473	392	422	322	371	368	350	330	366

REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	16	15	13	14	29	29
1 year	9	9	12	13	21	22
2 years	14	5	11	12	25	17
3 years	6	3	8	3	14	6
4 years	11	5	12	3	23	8
Under 5 years	56	37	56	45	112	82
5 to 9 years	84	15	77	18	161	33
10 to 14 years	109	20	125	17	234	37
15 to 19 years	185	53	246	97	431	150
20 to 24 years	244	108	375	178	619	286
25 to 34 years	511	280	326	274	1037	554
35 to 44 years	502	320	291	167	793	487
45 to 54 years	443	326	155	124	598	450
55 to 64 years	238	222	101	78	339	300
65 years and over	118	112	89	78	207	190
Age not stated	8	0	1	0	9	0
Total	2498	1493	2042	1076	4540	2569

REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	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	0	0	0	0	0	0	0	1	0	1	0	1
3 years	7	0	0	0	0	1	1	0	2	1	0	2	0
4 years	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years	10	0	6	0	0	1	1	0	3	1	1	2	1
5 to 9 years	33	4	1	1	0	3	1	1	5	7	7	2	1
10 to 14 years	45	2	1	1	1	1	1	4	10	12	7	3	2
15 to 19 years	46	3	1	1	1	0	2	6	9	11	7	3	2
20 to 24 years	32	1	0	3	0	0	2	0	8	3	1	2	2
25 to 34 years	47	3	1	3	2	1	2	4	7	13	4	2	5
35 to 44 years	25	2	1	0	0	1	1	4	2	2	2	2	2
45 to 54 years	20	0	2	0	0	0	3	3	5	3	0	2	0
55 to 64 years	5	0	1	0	1	0	0	3	0	0	0	0	0
65 years and over	6	0	0	0	0	0	0	1	0	1	2	1	1
Age not stated	1	0	0	0	0	0	0	0	0	0	0	1	0
Total	270	15	8	9	5	7	13	29	50	58	33	25	18

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1932 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	2	0	1	0	3	0
3 years	3	0	4	0	7	0
4 years	0	0	0	1	0	1
Under 5 years	5	0	5	1	10	1
5 to 9 years	17	1	16	2	33	3
10 to 14 years	25	1	20	1	45	2
15 to 19 years	27	0	19	2	46	2
20 to 24 years	17	1	15	2	32	3
25 to 34 years	30	0	17	5	47	5
35 to 44 years	16	8	9	1	25	9
45 to 54 years	15	1	5	0	20	1
55 to 64 years	3	0	2	2	5	2
65 years and over	2	1	4	0	6	1
Age not stated	0	0	1	0	1	0
Total	157	13	113	16	270	29

REPORTED CASES OF UNDULANT FEVER IN NEW JERSEY

For the Calendar Year 1932 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	2	1	0	0	0	0	0	0	0	0	0	0	1
Under 5 years	2	1	0	0	0	0	0	0	0	0	0	0	1
5 to 9 years	2	1	1	0	0	0	0	0	0	0	0	0	0
10 to 14 years	2	0	0	0	1	0	1	0	0	0	0	0	0
15 to 19 years	4	0	1	0	1	0	1	0	0	1	0	0	0
20 to 24 years	3	0	0	0	0	0	2	0	1	0	0	0	0
25 to 34 years	8	0	0	0	1	0	0	1	2	0	2	2	0
35 to 44 years	9	2	2	0	0	2	1	0	0	1	1	0	0
45 to 54 years	4	0	0	0	0	0	1	0	2	0	0	1	0
55 to 64 years	1	0	0	0	0	1	0	0	0	0	0	0	0
65 years and over	1	0	0	0	0	0	0	0	1	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	36	4	4	0	3	3	6	1	6	2	3	3	1

REPORTED CASES AND DEATHS FROM UNDULANT FEVER IN NEW JERSEY

For the Calendar Year 1932 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	1	0	1	0	2	0
Under 5 years	1	0	1	0	2	0
5 to 9 years	2	0	0	0	2	0
10 to 14 years	2	1	0	0	2	1
15 to 19 years	3	0	1	0	4	0
20 to 24 years	1	0	2	0	3	0
25 to 34 years	6	0	2	0	8	0
35 to 44 years	6	0	3	0	9	0
45 to 54 years	2	0	2	0	4	0
55 to 64 years	1	0	0	0	1	0
65 years and over	0	0	1	0	1	0
Age not stated	0	0	0	0	0	0
Total	24	1	12	0	36	1

DEPARTMENT OF HEALTH

REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	
Under 1 year	701	82	109	81	81	76	61	56	46	24	25	27	33
1 year	774	82	119	118	94	75	53	59	57	40	28	19	50
2 years	1043	139	162	115	151	111	87	70	72	37	28	36	35
3 years	1105	138	170	138	135	128	71	96	66	46	44	32	41
4 years	1143	138	198	147	151	114	98	75	60	53	34	28	38
Under 5 years	4766	579	758	599	612	504	370	356	310	200	159	142	177
5 to 9 years	4364	587	842	603	610	490	293	205	180	113	121	144	176
10 to 14 years	344	38	83	53	35	38	33	14	11	12	10	10	7
15 to 19 years	34	1	6	3	6	5	6	1	1	1	0	2	2
20 to 24 years	14	1	3	2	0	0	1	1	1	1	0	3	1
25 to 34 years	45	7	10	5	3	1	4	3	4	5	0	3	0
35 to 44 years	20	1	4	1	2	1	2	1	4	3	0	0	1
45 to 54 years	7	0	1	1	0	0	2	1	2	0	0	0	0
55 to 64 years	1	0	0	0	0	0	0	0	1	0	0	0	0
65 years and over	8	2	1	1	0	0	2	1	0	0	0	0	1
Age not stated	16	2	0	4	1	1	3	0	2	1	1	1	0
Total	9619	1218	1708	1272	1269	1040	716	583	516	336	291	305	365

REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1932 by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	335	31	366	40	701	71
1 year	379	12	395	21	774	33
2 years	504	3	599	6	1043	9
3 years	519	1	586	2	1105	3
4 years	527	1	616	1	1143	2
Under 5 years	2264	48	2502	70	4766	118
5 to 9 years	2063	2	2301	1	4364	3
10 to 14 years	155	0	189	0	344	0
15 to 19 years	16	0	18	0	34	0
20 to 24 years	3	0	11	0	14	0
25 to 34 years	9	0	36	0	45	0
35 to 44 years	9	0	11	0	20	0
45 to 54 years	3	0	4	2	7	2
55 to 64 years	0	0	1	0	1	0
65 years and over	2	0	6	0	8	0
Age not stated	9	0	7	0	16	0
Total	4533	50	5086	73	9619	123

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM CHICKENPOX AND DIPHTHERIA BY COUNTIES FOR 1932

COUNTIES	CHICKENPOX				DIPHTHERIA			
	Cases	Cases per 1000 Pop.	Deaths	Cases	Cases Per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Percent Fatality
Atlantic	204	1.52	0	15	0.11	1	0.007	6.66
Bergen	1482	3.71	0	100	0.25	11	0.02	11.00
Burlington	255	2.65	0	8	0.08	1	0.01	12.50
Camden	478	1.79	1	202	0.76	17	0.06	8.41
Cape May	100	3.15	0	1	0.03	0	...	...
Cumberland	131	1.82	0	6	0.08	0	...	...
Essex	3236	3.70	0	208	0.24	6	0.006	2.88
Gloucester	103	1.36	0	15	0.19	2	0.02	13.33
Hudson	503	0.71	1	452	0.64	29	0.04	6.41
Hunterdon	27	0.77	0	2	0.05	0	...	...
Mercer	276	1.43	0	32	0.16	2	0.01	6.25
Middlesex	187	0.83	0	63	0.28	3	0.01	4.76
Monmouth	325	2.07	1	16	0.10	2	0.01	12.50
Morris	680	5.83	0	7	0.06	1	0.01	14.28
Ocean	21	0.59	0	1	0.03	0	...	...
Passaic	752	2.41	0	167	0.53	14	0.04	8.38
Salem	19	0.51	0	12	0.32	0	...	...
Somerset	79	1.14	0	4	0.06	1	0.01	25.00
Sussex	26	0.91	1	1	0.03	0	...	...
Union	1616	4.92	0	89	0.27	7	0.02	7.86
Warren	4	0.08	0	2	0.04	0	...	...
State	10504	2.48	4	1403	0.33	97	0.02	6.91

REPORTED CASES AND DEATHS FROM DYSENTERY, LEPROSY, OPHTHALMIA NEONATORUM AND PARATYPHOID FEVER BY COUNTIES FOR 1932

COUNTIES	DYSENTERY		LEPROSY		OPHTHALMIA NEONATORUM		PARATYPHOID FEVER	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Atlantic	1	2	0	0	1	0	0	0
Bergen	0	0	0	0	2	0	1	0
Burlington	0	0	0	0	0	0	1	1
Camden	0	0	0	0	1	0	0	0
Cape May	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0
Essex	1	1	0	0	10	0	2	0
Gloucester	0	0	0	0	0	0	0	0
Hudson	0	1	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0
Mercer	0	0	0	0	3	0	0	0
Middlesex	0	0	0	0	0	0	1	0
Monmouth	2	0	0	0	9	0	0	0
Morris	0	0	0	0	5	0	0	0
Ocean	0	0	0	0	0	0	0	0
Passaic	0	0	0	0	4	0	4	1
Salem	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	1	0	0	0
Sussex	0	0	0	0	0	0	0	0
Union	1	0	0	0	1	0	0	0
Warren	0	0	0	0	0	0	0	0
State	5	4	0	0	28	0	9	2

DEPARTMENT OF HEALTH

REPORTED CASES AND DEATHS FROM INFLUENZA AND PNEUMONIA
BY COUNTIES FOR 1932

COUNTIES	INFLUENZA				PNEUMONIA			
	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.
Atlantic	70	0.52	39	0.29	61	0.45	85	0.63
Bergen	92	0.23	33	0.08	489	1.22	224	0.56
Burlington	34	0.35	14	0.14	57	0.59	59	0.61
Camden	130	0.49	87	0.32	327	1.23	205	0.77
Cape May	89	2.81	4	0.12	25	0.79	36	1.13
Cumberland	9	0.12	13	0.18	53	0.74	40	0.55
Essex	667	0.76	86	0.10	2265	2.59	554	0.63
Gloucester	2	0.02	18	0.23	47	0.62	57	0.75
Hudson	341	0.48	86	0.12	384	0.54	572	0.81
Hunterdon	2	0.05	5	0.14	11	0.31	36	1.02
Mercer	95	0.49	27	0.14	174	0.90	165	0.85
Middlesex	164	0.73	35	0.15	47	0.21	130	0.58
Monmouth	41	0.26	27	0.17	162	1.03	110	0.70
Morris	5	0.04	5	0.04	116	0.99	76	0.65
Ocean	36	1.01	7	0.19	6	0.17	22	0.62
Passaic	143	0.46	36	0.11	152	0.48	222	0.71
Salem	1	0.02	14	0.38	13	0.35	30	0.81
Somerset	15	0.21	5	0.07	30	0.43	39	0.56
Sussex	26	0.91	3	0.10	29	1.02	21	0.73
Union	43	0.13	37	0.11	207	0.65	210	0.64
Warren	1	0.02	14	0.28	3	0.06	38	0.75
State	2006	0.47	595	0.14	4658	1.10	2931	0.69

REPORTED CASES AND DEATHS FROM MALARIA AND EPIDEMIC CEREBROSPINAL
MENINGITIS BY COUNTIES FOR 1932

COUNTIES	MALARIA			EPIDEMIC CEREBROSPINAL MENINGITIS				
	Cases	Cases per 1000 Pop.	Deaths	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Percent Fatality
Atlantic	0	....	0	0	....	1	0.007	*
Bergen	0	....	1	3	0.01	3	0.007	60.00
Burlington	0	....	0	0	....	1	0.01	*
Camden	0	....	0	5	0.02	0	....	....
Cape May	0	....	0	0	....	0	....	....
Cumberland	0	....	0	0	....	0	....	....
Essex	1	0.001	1	18	0.02	8	0.01	44.44
Gloucester	0	....	1	1	0.01	0	....	....
Hudson	1	0.001	0	14	0.02	8	0.01	57.14
Hunterdon	0	....	0	3	0.08	0	....	....
Mercer	0	....	0	3	0.01	2	0.01	66.66
Middlesex	0	....	0	6	0.02	2	0.01	33.33
Monmouth	4	0.02	0	5	0.03	1	0.006	20.00
Morris	0	....	0	2	0.01	0	....	....
Ocean	0	....	0	1	0.03	0	....	....
Passaic	0	....	0	5	0.01	3	0.01	60.00
Salem	0	....	0	0	....	0	....	....
Somerset	0	....	0	2	0.03	0	....	....
Sussex	0	....	0	0	....	0	....	....
Union	0	....	0	8	0.02	4	0.01	50.00
Warren	0	....	0	0	....	0	....	....
State	6	0.001	3	78	0.02	33	0.007	42.30

* More deaths than cases reported.

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM MEASLES AND GERMAN MEASLES BY COUNTIES FOR 1932

COUNTIES	MEASLES					GERMAN MEASLES		
	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Percent Fatality	Cases	Cases per 1000 Pop.	Deaths
Atlantic	18	0.13	2	0.01	11.11	5	0.03	0
Bergen	3974	9.96	3	0.007	0.07	56	0.14	0
Burlington	41	0.42	0	.....	.....	8	0.08	0
Camden	51	0.19	0	.....	.....	23	0.08	0
Cape May	3	0.09	0	.....	.....	3	0.09	0
Cumberland	15	0.21	0	.....	.....	2	0.02	0
Essex	4304	4.93	2	0.002	0.04	225	0.25	0
Gloucester	11	0.14	0	.....	.....	2	0.02	0
Hudson	1550	2.20	24	0.03	1.55	11	0.01	0
Hunterdon	79	2.25	0	.....	.....	0	.....	0
Mercer	467	2.42	0	.....	.....	19	0.10	0
Middlesex	188	0.84	3	0.01	1.59	10	0.04	0
Monmouth	125	0.80	3	0.02	2.40	12	0.07	0
Morris	491	4.21	0	.....	.....	38	0.32	0
Ocean	64	1.80	0	.....	.....	1	0.03	0
Passaic	2570	8.25	0	.....	.....	8	0.02	0
Salem	7	0.19	0	.....	.....	0	.....	0
Somerset	39	0.56	0	.....	.....	17	0.24	0
Sussex	589	20.68	1	0.03	0.17	0	.....	0
Union	917	2.79	3	0.01	0.32	74	0.22	0
Warren	10	0.20	0	.....	.....	0	.....	0
State	15513	3.66	41	0.01	0.26	514	0.12	0

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS AND SCARLET FEVER BY COUNTIES FOR 1932

COUNTIES	ACUTE ANTERIOR POLIOMYELITIS				SCARLET FEVER			
	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.
Atlantic	57	0.42	6	0.04	356	2.66	3	0.02
Bergen	15	0.03	1	0.002	850	2.13	8	0.02
Burlington	22	0.23	2	0.02	323	3.36	1	0.01
Camden	73	0.27	4	0.01	1506	5.66	9	0.03
Cape May	26	0.82	1	0.03	74	2.33	0	.....
Cumberland	23	0.32	5	0.07	247	3.44	0	.....
Essex	18	0.02	3	0.003	1947	2.23	13	0.01
Gloucester	21	0.27	2	0.02	316	4.17	5	0.06
Hudson	25	0.03	5	0.007	831	1.18	9	0.01
Hunterdon	1	0.03	0	.....	122	3.47	4	0.11
Mercer	12	0.06	5	0.02	471	2.44	3	0.01
Middlesex	4	0.01	1	0.004	418	1.87	0	.....
Monmouth	8	0.05	1	0.006	314	2.00	6	0.04
Morris	7	0.06	3	0.02	185	1.58	2	0.01
Ocean	10	0.23	3	0.08	84	2.37	1	0.03
Passaic	10	0.02	2	0.006	488	1.56	2	0.006
Salem	10	0.27	0	.....	77	2.08	1	0.02
Somerset	6	0.08	1	0.01	64	0.93	1	0.01
Sussex	0	.....	0	.....	42	1.47	0	.....
Union	13	0.04	1	0.003	633	1.09	5	0.01
Warren	0	0	55	1.09	0
State	361	0.08	46	0.01	9423	2.22	73	0.01

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REPORTED CASES AND DEATHS FROM RABIES, TRACHOMA AND TRICHINOSIS
BY COUNTIES FOR 1932

COUNTIES	RABIES		TRACHOMA		TRICHINOSIS	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Atlantic	0	0	3	0	0	0
Bergen	0	0	1	0	0	0
Burlington	0	0	1	0	0	0
Camden	0	0	5	0	0	0
Cape May	0	0	0	0	0	0
Cumberland	0	1	0	0	0	0
Essex	0	0	6	0	3	0
Gloucester	0	0	0	0	0	0
Hudson	0	0	6	0	0	0
Hunterdon	0	0	0	0	0	0
Mercer	0	0	79	0	0	0
Middlesex	0	0	7	0	0	0
Monmouth	0	0	4	0	0	0
Morris	0	0	0	0	1	0
Ocean	0	0	1	0	0	0
Passaic	0	0	3	0	14	1
Salem	0	0	1	0	0	0
Somerset	0	0	3	0	0	0
Sussex	0	0	0	0	0	0
Union	2	2	0	0	0	0
Warren	0	0	0	0	0	0
State	2	3	120	0	18	1

REPORTED CASES AND DEATHS FROM SMALLPOX AND TUBERCULOSIS
BY COUNTIES FOR 1932

COUNTIES	SMALLPOX				TUBERCULOSIS				
	Cases	Cases Per 1000 Pop.	Deaths	Deaths Per 1000 Pop.	Cases	Cases Per 1000 Pop.	Deaths	Deaths Per 1000 Pop.	Per Cent Fatality
Atlantic	0	.....	0	.....	125	0.93	96	0.71	76.80
Bergen	0	.....	0	.....	284	0.71	200	0.50	70.42
Burlington	0	.....	0	.....	96	1.00	61	0.63	63.54
Camden	0	.....	0	.....	437	1.64	159	0.60	36.38
Cape May	0	.....	0	.....	22	0.69	9	0.28	40.91
Cumberland	0	.....	0	.....	72	1.00	40	0.55	55.55
Essex	0	.....	0	.....	1218	1.39	636	0.73	52.21
Gloucester	0	.....	0	.....	49	0.64	39	0.51	79.59
Hudson	0	.....	0	.....	716	1.01	474	0.67	66.20
Hunterdon	0	.....	0	.....	14	0.40	12	0.34	83.71
Mercer	0	.....	0	.....	267	1.38	150	0.77	56.18
Middlesex	0	.....	0	.....	764	0.73	127	0.57	77.44
Monmouth	0	.....	0	.....	144	0.92	99	0.63	68.75
Morris	0	.....	0	.....	136	1.16	65	0.55	47.79
Ocean	0	.....	0	.....	27	0.76	19	0.53	70.37
Passaic	0	.....	0	.....	291	0.93	136	0.43	46.73
Salem	0	.....	0	.....	32	0.86	14	0.38	43.75
Somerset	0	.....	0	.....	81	1.17	35	0.51	43.21
Sussex	0	.....	0	.....	20	0.70	10	0.35	50.00
Union	0	.....	0	.....	306	0.91	172	0.52	57.33
Warren	0	.....	0	.....	45	0.89	16	0.32	35.55
State	0	.....	0	.....	4540	1.07	2569	0.60	56.58

LOCAL HEALTH ADMINISTRATION

REPORTED CASES AND DEATHS FROM TYPHOID FEVER AND WHOOPING COUGH BY COUNTIES FOR 1932

COUNTIES	TYPHOID FEVER				WHOOPING COUGH			
	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.	Cases	Cases per 1000 Pop.	Deaths	Deaths per 1000 Pop.
Atlantic	16	0.12	3	0.02	143	1.07	3	0.02
Bergen	11	0.02	0	....	1281	3.21	7	0.01
Burlington	28	0.29	2	0.02	177	1.84	3	0.03
Camden	27	0.10	4	0.01	400	1.50	19	0.07
Cape May	4	0.12	0	....	59	1.86	2	0.06
Cumberland	9	0.12	1	0.01	150	2.09	3	0.04
Essex	47	0.05	5	0.005	3340	3.82	18	0.02
Gloucester	13	0.17	2	0.02	235	3.10	7	0.09
Hudson	22	0.03	2	0.002	313	0.44	18	0.02
Hunterdon	0	....	0	....	18	0.51	3	0.08
Mercer	9	0.04	1	0.005	314	1.62	5	0.02
Middlesex	9	0.04	3	0.01	149	0.66	7	0.03
Monmouth	30	0.19	5	0.03	560	3.58	1	0.006
Morris	3	0.02	0	....	201	1.72	2	0.01
Ocean	3	0.08	0	....	149	4.20	3	0.08
Passaic	18	0.05	1	0.003	375	1.20	4	0.01
Salem	7	0.19	0	....	10	0.27	4	0.11
Somerset	4	0.06	0	....	111	1.61	1	0.01
Sussex	3	0.10	0	....	78	2.74	0	....
Union	6	0.02	0	....	1556	4.74	11	0.03
Warren	1	0.02	0	....	0	....	2	0.04
State	270	0.06	29	0.006	9619	2.27	123	0.03

REPORTED CASES AND DEATHS FROM MUMPS, LETHARGIC ENCEPHALITIS, UNDULANT FEVER, TETANUS AND TULAREMIA BY COUNTIES FOR 1932

COUNTIES	MUMPS		LETH. EN-CEPHALITIS		UNDULANT FEVER		TETANUS		TULAREMIA	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Atlantic	144	0	4	1	0	0	0	1	0	0
Bergen	356	0	1	5	2	0	2	5	0	0
Burlington	33	0	1	0	2	0	1	1	0	0
Camden	113	0	1	2	1	0	0	1	0	0
Cape May	59	0	1	0	0	0	1	2	1	0
Cumberland	10	0	0	1	1	0	0	3	0	0
Essex	4493	1	12	4	8	0	6	6	0	0
Gloucester	29	0	0	0	0	0	0	0	0	0
Hudson	447	0	6	5	0	0	0	0	0	0
Hunterdon	15	0	0	0	1	0	0	0	0	0
Mercer	302	0	5	4	3	0	2	2	0	0
Middlesex	130	0	1	2	1	0	0	0	0	0
Monmouth	424	0	2	1	4	1	1	0	0	0
Morris	77	0	2	1	4	0	0	0	0	0
Ocean	99	1	0	0	1	0	0	0	0	0
Passaic	35	0	2	2	2	0	0	0	0	0
Salem	2	0	0	1	1	0	0	1	1	0
Somerset	38	0	0	0	2	0	0	0	0	0
Sussex	6	0	0	0	1	0	1	0	0	0
Union	619	0	5	6	2	0	1	0	1	0
Warren	0	0	0	0	0	0	0	1	0	0
State	7431	2	43	35	36	1	15	23	3	0

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DEPARTMENT OF HEALTH

REPORTED CASES AND DEATHS FROM MISCELLANEOUS DISEASES
FOR THE YEAR 1932

DISEASES	MALE		FEMALE		TOTAL	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anthrax	2	1	0	0	2	1
Malaria	2	1	4	2	6	3
Ophthalmia Neonatorum	16	0	12	0	28	0
Rabies	2	3	0	0	2	3
Smallpox	0	0	0	0	0	0
Tularemia	2	0	1	0	3	0
Typhus Fever	2	0	0	0	2	0

Report of the Bureau of Engineering

For the Year Ending June 30, 1933

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

“Although there have been advances in all lines of medical science, in no one field of endeavor, perhaps, has there been such a saving of life as in the installation of water supply and sewage disposal plants.” This is part of the statement issued by Dr. H. S. Cumming, Surgeon General, United States Public Health Service, under date of May 11, 1933, in his consideration of the appropriation of moneys for the relief of unemployment by the construction of public works. He also stated: “There can, however, be no question that if such appropriations be made available, in no way could they be more useful to this and future generations than in the construction and installation of adequate and safe water supplies and sewage disposal systems.”

The effect of the economic conditions upon the sanitary engineering field of public health is reflected in the following table, which shows the value of the engineers' estimates on the plans for water and sewage projects submitted during the last five years to the bureau for examination:

<i>Fiscal Year Of</i>	<i>Water Projects</i>	<i>Sewage Projects</i>	<i>Total of Water and Sewage Projects</i>
1929	\$1,577,751	\$7,775,147	\$9,352,898
1930	936,194	4,808,559	5,744,753
1931	1,384,064	6,249,622	7,633,686
1932	1,816,025	2,212,479	4,028,504
1933	427,596	887,655	1,315,251
Average of 5 year period ..	1,228,326	4,386,692	5,615,018

A barrier against the "saving of life" was erected by the passage of Chapter 50, P. L. 1933. This law is as follows:

"A Further Supplement to an act entitled 'An act respecting the Court of Chancery' (Revision of 1902), approved April third, one thousand nine hundred and two."

"BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey*:

"1. Where any decree has been or shall be entered in the Court of Chancery to compel any municipality to install and maintain a sewage disposal plant, and it shall be represented to the court by said municipality that it is unable to meet its financial obligations and unable to borrow money for the purpose of installing and maintaining such sewage disposal plant, such municipality is hereby authorized and empowered to present a petition to said court reciting such facts and requesting an extension of time within which to comply with the terms of said decree and the court, after examining into the matter and being satisfied of the truthfulness of the facts set forth in said petition, shall grant an extension of time to said municipality to commence the work of such installation and maintenance as the court shall deem just and proper.

"2. This act shall take effect immediately.

"Approved March 13, 1933."

The heavy financial burdens carried by the inhabitants of the State in the year of 1932 and the winter of 1933 were, no doubt, justification for the establishment of this law. The passage of the federal act, which has for its purpose the industrial recovery of the nation, now warrants the repeal of Chapter 50, P. L. 1933. The construction of safe water supplies and satisfactory sewerage systems will result in improving the public health, preserving the natural resources and promoting the happiness and prosperity of the inhabitants of the State. The establishment of these water and sewage projects will also result in a decided economic improvement to the State—a work of lasting value when it is compared with certain other lines of work being done for the relief of the unemployed.

There are other factors to be considered in the situation produced by the establishment of Chapter 50, P. L. 1933. Many municipalities who have co-operated with this department and have assumed additional financial obligations for public health protection are now being penalized through the failure of neighboring municipalities to act. For this co-operation these municipalities have, in many cases, been attacked by their taxpayers. In

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fairness to these indebted municipalities and their taxpayers, the chapter should be repealed.

In accordance with instructions from the Director of Health, there was prepared for his consideration under date of June 1, 1933, a program comprising the control of stream pollution and the construction of sewage treatment plants, with the basic principle in mind that stream pollution, sewage disposal, safe water supplies, recreational centers and shellfish areas are allied subjects. This program has for its purpose the encouragement of industrial recovery in New Jersey, under the terms of the "National Industrial Recovery Act," HR 5755, passed by Congress on June 13, 1933.

Pertinent data from tables and charts compiled for the aforementioned report show: that the program represents an expenditure, within a two year period, of approximately \$28,000,000, and, the completion of the work begun under the program will represent an expenditure of over \$37,000,000; that approximately 470,000 man hours of professional services will be required to execute the two year program; that approximately 20,000,000 man hours of skilled and unskilled labor will be required to perform the work; that approximately \$8,400,000 will be expended on materials, and \$5,600,000 on machinery and equipment and, that over \$7,000,000 of this \$14,000,000 will be expended on indirect labor during the two year period.

As in the former reports of the bureau, this report has for its purpose not only the recording, in summary, of the work done during the fiscal year, but also the establishment in permanent form,—

Of the progress made in certain lines of endeavor started several years in the past; the listing of departmental actions together with acts introduced and permits issued, all of which are believed to be of value to sanitarians in general and local health officials in particular. It includes the revision of tables relating to water and sewage installations, which experience has demonstrated are of value not only to the aforementioned groups, but also to others, including: the layman, municipal officials, industrial interests and prospective settlers, permanent and transient, within the State.

The outline of the report that follows can be summarized as:

1. Number of water and sewage projects acted upon by the department with estimates of costs.
2. Transfer of the water and sewage laboratory to the Bureau of Chemistry.
3. Table of samples analyzed in the sewage and water laboratory from July 1 to July 31, 1932.
4. Public potable water supplies defined through a resolution adopted by the department December 6, 1932.
5. Pollution of the waters of the Raritan River and its tributaries.
6. Table upon work accomplished by the bureau during the year.
7. Creation of the Hackensack Valley Sewerage District.
8. Rules and regulations governing the issuance of licenses to operators of sewage treatment and water purification and/or treatment plants.
9. Water used upon interstate carriers.
10. Physical connections with public potable water supplies with table of connections between approved public supplies and unapproved private supplies.
11. Disposal of sewage from North Jersey seashore municipalities.
12. Bathing pools.
13. Stream sampling stations.
14. Establishment of factories on watersheds.
15. Table upon public potable water supplies.
16. Table upon municipal sewage treatment plants.

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Into the preparation of the following entered those employees of the bureau who took leading parts in the detailed field investigations, the holding of examinations, the preparation of resolutions adopted and acts proposed for adoption.

I wish to commend to you, Mr. Director, the personal interest shown in, and the faithful performance of, the duties assigned to the personnel of the bureau. Their hearty co-operation resulted in producing, in my opinion, one of the outstanding years in the work of the Bureau of Engineering.

The following table No. 1 shows the number of water and sewage projects examined by the bureau for departmental action and includes the number of plans approved for such projects, the number of applying municipalities and the consulting engineers' estimates of cost of such work.

WATER AND SEWAGE LABORATORY

The water and sewage laboratory, under the control of the Bureau of Engineering since July 15, 1927, was transferred to the Bureau of Chemistry on August 1, 1932.

The increasing number of public potable water supplies and sewage treatment plants and the increasing number of detailed surveys in the matter of surf and stream pollutions were, in the greater part, responsible for the increased appropriation authorizing the employment of additional engineers and watershed inspectors in the Bureau of Engineering in the latter part of the fiscal year 1932; and, to permit greater concentration in the above lines of work, it was believed that the department should give consideration to the lodging of the supervision of the water and sewage laboratory in the Bureau of Chemistry, especially in view of the proposed alterations for laboratory purposes. In the Chemistry Bureau is already lodged work of a similar character and such a transfer will, among other benefits, result, it is believed, in a more efficient utilization of the personnel of the two bureaus and provide more direct supervision by a Bureau Chief.

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TABLE NO. 1—NUMBER OF WATER AND SEWAGE PROJECTS EXAMINED FROM
JULY 1, 1932, TO JUNE 30, 1933

<i>Character of Projects</i>	<i>Number</i>	<i>Number of Plans</i>	<i>Number of Applying Municipalities, Com- missions or Com- panies</i>	<i>Engineers' Estimates of Costs</i>
<i>Sewage:</i>				
Sewer extensions and pumping stations ..	16	37	11	\$97,630.00
Trunk, sub-trunk, relief, intercepting and outfall sewers	3	10	3	31,500.00
Alterations and improvements at existing sewage treatment works	10	49	9	232,525.00
Sewer systems, new	1	28	1	30,000.00
Sewage treatment works, new	2	61	2	496,000.00
<i>Water:</i>				
New systems and supplies	10	18	10	89,700.00
Alterations, improvements and additions to water works	38	67	32	337,896.00
Totals	80	270	68	\$1,315,251.00
Total of engineers' estimates of costs for the fiscal year ending June 30, 1932				\$4,028,504.00

The following table No. 2 sets out the character and quantity of analyses and examinations made in the water and sewage laboratory from July 1 to July 31, 1932.

TABLE No. 2—SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY

Month	Public Water Supplies		Private Water Supplies																	
	Collected by Local Boards of Health	Collected by Employees	Pay Samples	Second Samples	Camp Supplies	Miscellaneous.	State Park and Forest Supplies	State Institution Supplies	County Institution Supplies	County Park Supplies	Bottled Water Supplies	Dairy Supplies	Bathing Waters	Stream Samples	Surf Samples	Sewage Samples	Trade Waste Samples	Sand Samples	Totals	
*July 1932	236	18	9	6	1	32	1	3	18	4	8	1	6	19	62	148	138	5	2	717
.....																				

* The water and sewage laboratory was transferred to the Bureau of Chemistry August 1, 1932.

PUBLIC POTABLE WATER SUPPLIES DEFINED

The following preamble and resolution was adopted at the Board meeting on January 10, 1933, defining a public potable water supply under the health regulations of the Department of Health of the State of New Jersey :

WHEREAS, The Department of Health of the State of New Jersey requested opinions under dates of April 23, 1929, and May 3, 1929, from the Attorney General of the said State relative to the jurisdiction of the Department of Health of the State of New Jersey over public potable water supplies and what constitutes such supplies under the provisions of Chapter 253 of the P. L. of 1909, being an act of the Legislature of New Jersey, entitled "A supplement to an act entitled 'An act to secure the purity of the public supplies of potable waters in this State,' approved March seventeenth, eighteen hundred and ninety-nine," approved April twenty-first, nineteen hundred and nine; and

WHEREAS, The said Attorney General under dates of April 25, 1929, and May 8, 1929, issued opinions to the Department of Health of the State of New Jersey upon the information requested in the aforementioned letters, setting out that the act deals not only with the sale of water, but also with distribution thereof; that the Department has no jurisdiction in the furnishing of water to hotels and other establishments delivering water to guests and others merely as an accommodation as such constitutes a private supply; that the act clearly prohibits the distribution or the sale of water which is polluted or which may become so, and that the word "public" as used in the act of 1899 and its amendments does not necessarily mean all of the public nor most of the public nor, indeed, many of them, but so many of them as contradistinguishes them from a few; and

WHEREAS, From time to time, since the receipt from the Attorney General of the aforementioned opinions, a number of individuals who are supplying water to a small number of properties have been required by the Department, where such supplies have been found upon investigation by representatives of the Department or reported to be supplying water to consumers to the Department, to adhere to the requirements of the statute; and

WHEREAS, Such supplies are becoming more numerous and the Department is of the opinion that a large number of such small water supplies exist throughout the State and requested the Attorney General under dates of September 21, 1932, and October 3, 1932, as to whether the Department should consider a supply distributing water to three or four premises as a private potable water supply or a public potable supply and one over which the Department should assume jurisdiction; and,

WHEREAS, The Attorney General under dates of October 1, 1932, and October 11, 1932, advised the Department that if the Department feels that four families would constitute the "public" intended to be protected by the provisions of the Potable Water Act, then the said Department would have jurisdiction over such supply; and

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WHEREAS, In the aforementioned opinion of the Attorney General rendered to the Department under date of May 8, 1929, in which the Attorney General set out that "the word 'public' as used in the potable water act of 1899 and its amendments, does not necessarily mean all of the public nor, indeed, many of them, but so many of them as contradistinguishes them from a few;" and

WHEREAS, The word "few" is defined in the Bible, I Peter 3:20, as eight and has been legally defined as an indefinite expression for a small or a limited number, which number may include fifteen or twenty, as set out in some of the court decisions; but in cases where an exact description is required, the use of the word "few" will not answer; and,

WHEREAS, Under an opinion rendered in the case of the *Junction Water Company vs. Frank G. Riddle*, 109 N. J. Eq., p. 523, it is set out that an individual supplying several houses owned by him and occupied by tenants with water service through mains and conduits laid partly on his own land and partly in the public streets does not thereby become a public utility within the meaning of that term as used in Sec. 15, Chap. 195, P. L. 1911, p. 376, as amended Supp. C. S. 1925-1930, p. 1487, and the right to sell water is not a prerogative of government but a business in which any person may engage without legislative authority; and

WHEREAS, The Department of Health of the State of New Jersey approved as a source of public potable water supply the supply of the aforementioned Frank G. Riddle of Hampton, New Jersey, from which source of supply water is sold or delivered to eight dwellings besides his own premises; and,

WHEREAS, The Attorney General of this State advised under date of April 26, 1932, that the Department of Health of the State of New Jersey in carrying out the provisions of Chapter 253 of the P. L. of 1909 is not dealing with the question of whether an individual furnishing water is pursuing the functions of a public utility but solely whether or not an individual is furnishing water to the public or a portion thereof; and

WHEREAS, The Department of Health of the State of New Jersey, under the provisions of Chapter 253 of the P. L. of 1909, being an act entitled, "A supplement to an act entitled, 'An act to secure the purity of the public supplies of potable waters in this State,' approved March seventeenth, eighteen hundred and ninety-nine," approved April 21, 1909, in the approval of a source of water supply from which water is to be sold or distributed for potable purposes is dealing alone with the quality of the water supplied; and

WHEREAS, It is the opinion of the Department of Health of the State of New Jersey that an exact definition should be made of the number of dwellings and/or properties that are supplied with potable water so as to determine the supplies that should be classified as public potable water supplies in this State; therefore,

Be it Resolved, By the Department of Health of the State of New Jersey, at a meeting held on the sixth day of December, A. D. one thousand nine hundred and thirty-two, it is the opinion of the said Department of Health that,

in order for sources of water supplies to be considered as public potable supplies, they must represent sources of supply from which water is distributed or sold to consumers for potable purposes in eight or more dwellings and/or properties, and where water from sources of supplies is distributed or sold to less than said number of dwellings and/or properties such supplies will hereafter be considered as private sources of water supplies and which supplies come within the jurisdiction of local boards of health having control over the territory wherein such supplies are located.

The resolution does not apply to those supplies which have already been approved by the Department of Health of the State of New Jersey, but will apply to all future applications being within the limitations of the resolution.

POLLUTION OF THE WATERS OF THE RARITAN RIVER AND ITS TRIBUTARIES

As a result of the investigation of the pollution of the waters of the Raritan River by the Port District Raritan Commission (the findings of which are incorporated in a "Report on Pollution of the Raritan River Prepared for the Port Raritan District Commission by the Department of Water Supplies and Sewage Disposal, Rutgers University," dated 1927, and in the report entitled "Methods for the Abatement of the Pollution of the Raritan River," prepared by a firm of consulting engineers), and various investigations by this department, potable water notices were served upon the municipalities of Somerville and Raritan, the Johns-Manville Corporation at Manville and the Pillar of Fire Institute at Zarephath, under date of March 4, 1930; action was also taken by the department on July 7, 1931, for issuance of notices, under the State Sewerage Act, Chapter 72 of the P. L. of 1900, and its amendments and supplements, upon fourteen (14) municipalities within the Raritan River basin, and on July 12, 1932, fourteen (14) additional notices were served, under the latter act, upon individuals, real estate associations and others sewerage into private sewer lines and thence discharging into Raritan River or its tributaries.

The municipalities served with notices under the State Sewerage Act applied to the department for an extension of time in which to comply with the requirements of the order owing to financial

stringencies. Pursuant to this request, the department resolved at its meeting of February 2, 1932, "That the Chancellor of the State of New Jersey be respectfully petitioned to enter decrees by consent in suits heretofore instituted or hereafter to be instituted by the State Department of Health against the said municipalities where the defendant municipality is willing to consent thereto, whereby the defendant municipality shall be directed to cease the pollution of the Raritan River and Raritan Bay and their tributaries by discharging raw domestic sewage or partially treated sewage therein within two years from the date of the decree with leave to the defendant municipality to apply for an extension of the time limited by the decree should financial conditions not improve sufficiently to warrant the defendant in proceeding with the necessary works to comply therewith;" and, "That suits be instituted and/or prosecuted in all cases in which the respective municipalities are unwilling to consent to the entry of a decree substantially to the effect aforesaid;" and, "That a copy of this resolution be mailed to each of said municipalities and to the Attorney General of the State of New Jersey with instructions to proceed accordingly."

Pursuant to the second provision of the above resolution, a court suit was instituted against the municipality of Somerville, which cause was heard November 14, 1932, in the Court of Chancery in the presence of Russell E. Watson, Esquire, appointed Deputy Attorney General, of counsel with the complainant, and Merritt Lane, Esquire, of counsel with the defendant. Pleadings, proofs, exhibits and arguments of counsel were presented at that time. Briefs further supporting the above were submitted to the Court of Chancery at a later date. A Final Decree in this matter has not been issued up to the time of this writing.

The necessary prosecution against the town of Raritan, Johns-Manville Corporation and the Pillar of Fire Institute is being held in abeyance pending the decision of the court in the case of Somerville.

In addition to the above work there have been made, as listed in the following table No. 3, during the year, inspections relating to:

Water:

Special water, including complaints and conferences	395
Swimming pools and bathing beaches	43

Sewage:

Special sewage and trade wastes, including construction work	348
Complaints and conferences	72

One hundred and eleven certificates were issued to railroads, vessel and airway companies for the use of water upon interstate carriers. One hundred and fifteen man-working days were spent in the collection of samples from stream sampling stations; $8\frac{1}{2}$ man-working days were spent in attending court trials and serving court papers; $25\frac{1}{2}$ man-working days were spent in attending conventions; $22\frac{1}{2}$ man-working days were spent in collecting surf samples along the North Jersey coast; 22 man-working days were spent in inspecting sewage outfalls along the North Jersey coast, and 27 man-working days were spent in stream survey work.

The following man-working days were spent in the investigation of water purification and/or treatment plants at:

Clinton (Clinton Water and Water Supply Company)....	$7\frac{1}{2}$
Millville (Millville Water Company)	$4\frac{1}{2}$

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

Bergenfield-Dumont (joint plant)	$15\frac{1}{2}$
Bradley Beach	15
Chatham-Madison	$22\frac{1}{2}$
Freehold	$8\frac{1}{2}$
Keyport	14
Lakelands (Camden County Institutions)	$10\frac{1}{2}$
Long Branch (municipality—2 plants)	12
Morristown	$32\frac{1}{2}$
North Brunswick Township	11
Ocean Township	$10\frac{1}{2}$
Spring Lake	13
Tenafly	26

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Sanitary surveys were made on the Peckman River requiring 32 man-working days, Inside and Outside Thorofares in Atlantic City and vicinity requiring 25 man-working days.

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

- Assumpink Creek, tributary to Delaware River
- Delaware River
- Green Brook, tributary to Raritan River
- Tributary to Hudson River
- Matawan Creek, tributary to Raritan Bay
- Metedeconk River
- Mine Brook, tributary to North Branch Raritan River
- Mohawk River
- Pascack Brook, tributary to Hackensack River
- Pensauken Creek, tributary to Delaware River
- Peckman River
- Pequannock River
- Rahway River
- Ramapo River
- Raritan River
- Raritan Bay
- Tributary to Wallkill River
- Tributary to Whippany River
- Whippany River

Stream pollution investigated	37
Notices issued to individuals and companies to cease stream pollutions	37
Reinspections of stream pollutions made	23
Cases of stream pollutions found to be abated	15
Cases for abatement of pollutions referred for prosecution to Attorney General	8
Cases against stream polluters held in abeyance	14
Notices issued upon municipalities or sewer companies to cease the discharge of raw or insufficiently treated sewage into the waters of the State and/or to alter, add to or improve sewage treatment works	16
Notices issued to operators of sewage treatment plants to comply with requirements of the department	2
Notices issued upon municipalities and sewer companies to employ licensed operators at sewage treatment plants	7
Notices issued upon municipalities and water companies to improve water supplies	17
Notices issued upon distributors of potable water to cease the supplying of water to the public until the source of supply is approved	2
Cases referred to Attorney General for prosecution of municipalities or companies for failure to improve water supplies	4

DEPARTMENT OF HEALTH

HACKENSACK VALLEY SEWERAGE DISTRICT

Since the approval on March 26, 1926, of Chapter 173 of the P. L. of 1926, which forbade the discharge of any sewage or polluting matter into the waters of the Hackensack River above the mouth of Bellman's Creek, or into any tributaries, including Bellman's Creek, of the Hackensack River, which empty into said river above the aforementioned point after May 1, 1930, unless the sewage was subjected to a minimum purification process, including sedimentation and intermittent sand filtration, and under which act the time limit of May 1, 1930, has been extended in the several years since its adoption to various dates, the last being May 1, 1933, statutes have been enacted creating the Hackensack Valley Sewerage District and Commission. These statutes provided for the investigation by the Commission of methods and plans for relieving the Hackensack River and its tributaries from pollution and preventing pollution of the river.

During the present session of the Legislature of 1933, a bill was introduced which has been enacted into law and is known as Chapter 288 of the P. L. of 1933, entitled "A supplement to an act entitled 'An act to create a sewerage district to be called Hackensack Valley sewerage district, to authorize the appointment and define the powers and duties of the commissioners therefor, to provide a plan for the prevention of the pollution of the Hackensack River and its tributaries and to authorize the raising and expenditure and payment of moneys necessary for this purpose,' approved April fifteenth, one thousand nine hundred and thirty," approved June 26, 1933, which act provides for the appointment of four commissioners, two from the county of Hudson and two from the county of Bergen, to be known as the Hackensack River Sewerage Commission, to act as an agency for the counties of Bergen and/or Hudson and any of the several municipalities of either of said counties for the purpose of acquisition, construction, operation and maintenance of the work determined to be necessary and proper for the relief and prevention of the pollution of the Hackensack River and its tributaries to any extent which may be authorized by contracts made between said Commission and said counties, or either of them, or any of the said municipalities in said counties.

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The Commission is further authorized to do and perform all things which may be necessary or proper to have included in the Comprehensive Program of Public Works, authorized by section two hundred and two of the "National Industrial Recovery Act," the works necessary and proper for the relief and prevention of the pollution of the Hackensack River and its tributaries and the purification of the same, including such system or systems of sewage collection and disposal within the drainage area of said Hackensack River and its tributaries as may be desirable or proper, to provide for the construction and financing, or aid in the construction and financing thereof, as provided in section two hundred and three of said "National Industrial Recovery Act" and for such purposes, or any of them, to enter into such contract or contracts with the United States Government, or any of its agencies, including said Federal Emergency Administrator of Public Works, and, further, to do all things necessary or proper for the purpose of acquiring the necessary property and doing the work necessary and proper for the relief and prevention of the pollution of the Hackensack River and its tributaries and the purification thereof, including the construction of such sewerage system or systems, disposal plant or plants, as may be deemed necessary or proper in connection therewith.

The Commission under the former law creating the Hackensack Valley Sewerage District has been abolished by this act and the members of the Commission are required to turn over all of the books, records, maps, reports and other papers and documents in their possession to the new commission constituted under the provisions of Chapter 288 of the P. L. of 1933.

The statute restrains prosecutions under " 'An act to provide for the purification of the waters of the Hackensack River,' approved March twenty-sixth, one thousand nine hundred and twenty-six, until after May first, one thousand nine hundred and thirty-five."

NEW RULES AND REGULATIONS GOVERNING THE ISSUANCE OF
LICENSES TO OPERATORS OF SEWAGE TREATMENT AND
WATER PURIFICATION AND/OR TREATMENT PLANTS

The Rules and Regulations governing the issuance of licenses to operate water purification and/or treatment plants and sewage treatment plants were revised and adopted by the New Jersey State Department of Health on July 12, 1932, under authority of Chapter 23, P. L. of 1918.

The provisions of the revised Rules and Regulations, together with the resolution, which accompanied their adoption, are herewith reprinted:

RULES AND REGULATIONS

WHEREAS, The Department of Health of the State of New Jersey deems it necessary to change the Rules and Regulations governing examinations for licenses for operators of sewage treatment and water purification and/or treatment plants, which were amended and adopted by the said Department of Health on April 6, 1926, and at further times amended and supplemented, in order to better supervise and control polluting material discharged into the waters of the State and as an aid in the protection of the health of the consumers of the public potable water supplies; therefore,

Be it Resolved, By the Department of Health of the State of New Jersey, at the meeting held on the twelfth day of July, A. D. one thousand nine hundred and thirty-two, that the following Rules and Regulations be and are herewith adopted by the said Department of Health:

GENERAL

1. No fee shall be charged for the application, examination or license.
2. Applications: Applications are to be submitted at least one month prior to the date of the examination. Upon each application shall be included, besides the usual required information, full information relative to education, training and experience; and there shall be attached a small photograph of the applicant taken within a year of the filing of his application.
3. Definite qualifications, which are herewith to be set out in the Rules and Regulations for each grade of license, are to be shown by the applicant proposing to take an examination before his application can be accepted.
4. When an application for an examination has been accepted, experience and training will be considered sufficient for the particular license sought and no further experience rating will be necessary.
5. Classifications of licenses are herewith set out which will apply to specific classifications with special reference to size and location of plants.
6. The passing mark of 70 per cent. is required for the issuance of licenses, averaged from the written and oral examinations proportioned for the various classifications of licenses as set out herein.

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7. Examinations are to be given twice a year, in the months of October and April.

8. Minimum requirements are herewith set up relative to the performance of duties and the operation of a plant by the holder of a license.

9. Where any applicant for a license to operate any water purification and/or treatment plant or sewage treatment plant in this State has failed at two successive examinations for licenses to operate water purification and/or treatment or sewage treatment plants, such applicant must wait for a period of one year to elapse from the time of the applicant's last examination before the said Department of Health will accept his application or permit him to take an examination to qualify at said examinations for a license as an operator of water purification and/or treatment or sewage treatment plants.

10. Examinations will be given under the direction of the examining board of the Department of Health and such examinations shall be practical in character and shall relate to those matters which will fairly test the ability of the person examined to discharge the duties for which a license is requested. The examination may be partly written and partly oral.

The department may refuse to examine or issue a license after examination to any person who has attempted to practice any deception or fraud in his application or his examination.

Any person successfully passing the examination shall have a license issued to him in the class and for the character of work for which the particular examination was given, and no person receiving a license shall fill a position calling for higher or different qualifications or greater knowledge than covered by the license granted to him.

11. When a license is issued or has been issued by the Department of Health of the State of New Jersey to any operator to supervise or operate any water purification and/or treatment or any sewage treatment plant in the State of New Jersey, before any person holding such a license can operate more than one such plant, a permit must first be obtained by such person from the Department of Health of the State of New Jersey; and, if the application of any operator to operate more than one such plant is denied by the Department of Health of the State of New Jersey, then if such operator shall in any way supervise or operate or attempt to supervise or operate more than one of such plants he shall be immediately summoned to appear before the Director of Health or the Department of Health of the State of New Jersey for a hearing; and, if no good cause for such action by such operator be shown, his license to operate a water purification and/or treatment or sewage treatment plant in this State shall be forthwith revoked by the Department of Health of the State of New Jersey.

12. When a permit is issued by the department for the construction of a new water purification and/or treatment or sewage treatment plant which will result in increasing the degree of water purification and/or treatment or sewage treatment or the sewage flow beyond critical amounts, the department, under a specific proviso will set out the class of operator that must be retained to operate the plant.

The classifications for licenses to operate water purification and/or treatment or sewage treatment plants are as follows:

* CLASSIFICATION OF LICENSES REQUIRED IN THE OPERATION OF WATER
PURIFICATION AND/OR TREATMENT PLANTS

First Class:

All plants employing a combination of sedimentation, coagulation, filtration and sterilization process of purification and/or treatment or any combination of two or more of these processes with approved or accepted capacities of approximately 2,000,000 or more gallons per day; and, all other plants employing any purification and/or treatment process with approved or accepted capacities of approximately 20,000,000 or more gallons per day.

(The holder of this license may operate a plant classified under any class described herein.)

Second Class:

All plants employing a combination of sedimentation, coagulation, filtration and sterilization processes of purification and/or treatment with approved or accepted capacities of less than approximately 2,000,000 gallons per day; and, all other plants employing any purification and/or treatment process, not classified above, with approved or accepted capacities of approximately 10,000,000 to approximately 20,000,000 gallons per day.

(The holder of this license may operate a plant classified under any class described herein except First Class.)

Third Class:

All plants employing a combination of sedimentation, filtration and sterilization processes of purification and/or treatment or any combination of two of these processes with approved or accepted capacities of less than approximately 2,000,000 gallons per day; and, all other plants employing any purification and/or treatment process, not classified above, with approved or accepted capacities of approximately 2,000,000 to approximately 10,000,000 gallons per day.

(The holder of this license may operate a plant classified under Third Class and Fourth Class.)

Fourth Class:

All plants employing sterilization process of treatment alone with approved or accepted capacities of less than approximately 2,000,000 gallons per day.

(The holder of this license may operate a plant classified under Fourth Class only.)

* The State Department of Health may, in its discretion, and where it is deemed necessary, set up the classification of a license required in the operation of any specified water purification and/or treatment plant.

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* CLASSIFICATION OF LICENSES REQUIRED IN THE OPERATION OF SEWAGE
TREATMENT PLANTS*Grade A:*

All plants employing the activated sludge process of treatment; all plants with approved or accepted capacities of approximately 500,000 or more gallons per day located on watersheds used for potable water supplies; and, all other plants with approved or accepted capacities of approximately 10,000,000 or more gallons per day.

(The holder of this license may operate a plant classified under any grade described herein.)

Grade B:

All plants employing a combination of sedimentation, separate sludge digestion, oxidation and sterilization processes of treatment for any period of time with approved or accepted capacities of approximately 50,000 to approximately 500,000 gallons per day located on watersheds used for potable water supply; all plants employing this combination of processes with approved or accepted capacities of less than approximately 10,000,000 gallons per day located on or adjacent to shellfish areas, which in the opinion of the State Department of Health influence these areas; and, all other plants employing this combination of processes with approved or accepted capacities of approximately 100,000 to approximately 10,000,000 gallons per day.

(The holder of this license may operate a plant classified under any grade described herein, except Grade A.)

Grade C:

All plants employing a combination of three processes of treatment included under DIVISIONS 1, 2 and 3 for any period of time with approved or accepted capacities of approximately 50,000 to approximately 500,000 gallons per day located on watersheds used for potable water supply; all plants employing one of these combinations of processes with approved or accepted capacities of less than approximately 10,000,000 gallons per day located on or adjacent to shellfish areas, which in the opinion of the State Department of Health influence these areas; and, all other plants employing one of these combinations of processes with approved or accepted capacities of approximately 100,000 to approximately 10,000,000 gallons per day.

Division 1. Sedimentation, oxidation and sterilization.

(The holder of this license may operate a plant classified under GRADE C—DIVISION 1, GRADE D—DIVISION 1 or DIVISION 2, GRADE E, GRADE F, or GRADE G.)

Division 2. Sedimentation, separate sludge digestion and sterilization.

(The holder of this license may operate a plant classified under GRADE C—DIVISION 2, GRADE D—DIVISION 1 or DIVISION 3, GRADE E, GRADE F, or GRADE G.)

* The State Department of Health may, in its discretion, and where it is deemed necessary, set up the classification of a license required in the operation of any specified sewage treatment plant.

Division 3. Sedimentation, separate sludge digestion, and oxidation.

(The holder of this license may operate a plant classified under GRADE C—DIVISION 3, GRADE D—DIVISION 2 or DIVISION 3, GRADE E, GRADE F, or GRADE G.)

Grade D:

All plants employing a combination of two processes of treatment included under DIVISION 1, 2, and 3 for any period of time with approved or accepted capacities of less than approximately 10,000,000 gallons per day located on or adjacent to shellfish areas, which in the opinion of the State Department of Health influence these areas; and, all other plants employing one of these combinations of processes with approved or accepted capacities of approximately 100,000 to approximately 10,000,000 gallons per day.

Division 1. Sedimentation and/or screening and sterilization.

Division 2. Sedimentation and oxidation.

Division 3. Sedimentation and separate sludge digestion.

(The holder of a GRADE D license may operate a plant classified under the *particular division* of his license, GRADE E, GRADE F, or GRADE G.)

Grade E:

All plants employing sedimentation and/or screening with approved or accepted capacities of approximately 2,500,000 to approximately 10,000,000 gallons per day not located on watersheds used for potable water supplies and not located on or adjacent to shellfish areas.

(The holder of this license may operate a plant classified under GRADE E, GRADE F, or GRADE G.)

Grade F:

All plants employing sedimentation and/or screening with approved or accepted capacities of approximately 250,000 to approximately 2,500,000 gallons per day not located on watersheds used for potable water supplies and not located on or adjacent to shellfish areas.

(The holder of this license may operate a plant classified under either GRADE F or GRADE G.)

Grade G:

All plants employing sedimentation and/or screening with approved or accepted capacities of approximately 100,000 to approximately 250,000 gallons per day not located on watersheds used for potable water supplies and not located on or adjacent to shellfish areas.

Grade S:

All plants (except activated sludge plants) employing one or more processes of treatment with approved or accepted capacities of less than approximately 50,000 gallons per day located on watersheds used for potable water supplies; and, all other such plants with approved or accepted capacities of less than approximately 100,000 gallons per day not located on or adjacent to shellfish areas.

(The holder of this license may operate the plant for which he is licensed or any plant which in the opinion of the State Department of Health is similar to that plant.)

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The following qualification requirements apply to applicants for examinations for licenses to operate water purification and/or treatment or sewage treatment plants.

QUALIFICATIONS REQUIRED FOR ADMISSION OF APPLICANTS TO EXAMINATIONS FOR LICENSES TO OPERATE WATER PURIFICATION AND/OR TREATMENT PLANTS

Definitions:

1. TRAINING at an operators' short course or vocational school shall be credited only when the applicant has satisfactorily completed the prescribed course.

2. EXPERIENCE shall be interpreted as the time actually engaged as a licensed operator in charge of a water purification and/or treatment plant or engaged as an assistant at a plant requiring the classification of license desired.

First Class:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		6 years
2. Three years of operators' short course or vocational school, specializing in water treatment, or equivalent in the opinion of the State Department of Health; and,		3 years
3. Two years of operators' short course or vocational school, specializing in water treatment, or equivalent in the opinion of the State Department of Health; and,		4 years
4. College degree (Technical); and,		1 year

Second Class:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		4 years
2. One year of operators' short course or vocational school, specializing in water treatment, or equivalent in the opinion of the State Department of Health; and,		3 years
3. Two years of operators' short course or vocational school, specializing in water treatment, or equivalent in the opinion of the State Department of Health; and,		2 years
4. College degree (Technical); and,		1 year

Third Class:

An applicant may offer either combination:

	<i>Training</i>	<i>Experience</i>
1. No		2 years
2. One year of operators' short course or vocational school specializing in water treatment, or equivalent in the opinion of the State Department of Health; and,		1 year

Fourth Class:

Training and/or experience in the operation of a sterilization device acceptable to the State Department of Health.

QUALIFICATIONS REQUIRED FOR ADMISSION OF APPLICANTS TO EXAMINATIONS FOR LICENSES TO OPERATE SEWAGE TREATMENT PLANTS

Definitions:

1. TRAINING at an operators' short course or vocational school shall be credited only when the applicant has satisfactorily completed the prescribed course.

2. EXPERIENCE shall be interpreted as the time actually engaged as a licensed operator in charge of a sewage treatment plant or engaged as an assistant at a plant requiring the classification of license desired.

Grade A:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		6 years
2. Three years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		4 years
3. Two years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		5 years
4. College degree (Technical); and,		1 year

Grade B:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		5 years
2. Three years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		3 years

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3. Two years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and, 4 years
4. College degree (Technical); and, 1 year

Grade C:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		5 years
2. Three years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		2 years
3. Two years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		3 years
4. College degree (Technical); and,		1 year

Grade D:

An applicant may offer any one of the four combinations:

	<i>Training</i>	<i>Experience</i>
1. No		4 years
2. Three years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		1 year
3. Two years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		2 years
4. College degree (Technical); and,		1 year

Grade E:

An applicant may offer any one of the three combinations:

	<i>Training</i>	<i>Experience</i>
1. No		3 years
2. One year of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		2 years
3. Two years of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		1 year

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Grade F:

An applicant may offer any one of two combinations:

	<i>Training</i>	<i>Experience</i>
1. No		2 years
2. One year of operators' short course or vocational school, specializing in sewage treatment, or equivalent in the opinion of the State Department of Health; and,		1 year

Grade G:

Training and/or experience, acceptable to the State Department of Health.

Grade S:

Training and/or experience, acceptable to the State Department of Health.

RATING FOR WRITTEN AND ORAL EXAMINATIONS

Sewage:

	<i>Written</i>	<i>Oral</i>
Grade A	100%	..
“ B	90%	10%
“ C	90%	10%
“ D	85%	15%
“ E	80%	20%
“ F	75%	25%
“ G	70%	30%
“ S	80%	20%

Water:

First Class	100%	..
Second Class	90%	10%
Third Class	80%	20%
Fourth Class	70%	30%

The most important change in the procedure of examining and licensing applicants under the new Rules and Regulations is the requirement that the person proposing to take an examination satisfy definite qualifications relative to training and experience, which were set out for each particular grade or class of license, before his application for the examination will be accepted. Formerly there were no restrictions on admission to the examinations.

Of secondary importance is the new classification of licenses. In regard to sewage treatment plants, the grades apply to specific

processes of treatment and combinations thereof, with special reference to size and location of plants. The size of the plant considered corresponds to the amount of sewage per day to be treated. The location of the plant is important in relation to the size and use of the receiving waters, which factors control the processes of treatment required. In water purification or treatment plants these points vary somewhat, being principally the character of the water to be treated, which factor controls the processes employed to effect the production of pure water and the amount of water consumed.

The new classification makes it more practical to examine a person on the particular features of the plant which he proposes to operate and eliminates all question of doubt as to his qualifications if he contemplates transferring to another plant coming under the same classification. Instead of the six license headings for sewage treatment plants, of three divisions each under Primary and Primary-Secondary groups, there are now eight separate and distinct classifications of licenses, namely: GRADES A, B, C, D, E, F, G and S, with three divisions each under GRADE C and D.

Realizing that about one-third of the sewage treatment plants in the State are small plants owned by manufacturing concerns, various institutions, clubs, camps, private estates and small real estate developments which require only part time attention, some of which although small in size are located so as to require a high degree of treatment, it was decided to take them out of the regular order of licenses required for municipal plants and to establish a separate and distinct grade which would control all plants within this category, yet restricting the holder of such license to the operation of the individual plant at which he is engaged and for which he was examined. This license is termed GRADE S and has no relative place in the sequence of importance of the other grades applicable to the municipal plants.

One important change made in the classifications of water purification and treatment plants was the insertion of one new class, separating slow sand filter plants from the smaller rapid sand filter plants. Both formerly were included under Second Class, but the slow sand filters now are controlled by Third Class, while chlorine sterilization plants with a capacity under 2,000,000 gallons per day have been placed under Fourth Class.

The revised Rules and Regulations became effective upon adoption. In accordance with the provisions, examinations for licenses are given twice a year. During the fiscal year, examinations were given on October 27, 1932, and April 13, 1933. The number of applicants for examinations, the number admitted to the examinations, the number examined and the number of licenses issued for each grade and class to operate sewage treatment and water purification and/or treatment plants respectively are presented in the following tabulation:

<i>Sewage</i>	<i>No. of Applicants</i>	<i>No. of Applicants Accepted</i>	<i>No. Examined</i>	<i>No. of Licenses Issued</i>
Grade A.....	14	6	4	2
“ B.....	9	8	7	4
“ C, Division 1	4	3	3	2
“ C, Division 2	3	2	2	1
“ C, Division 3	0	0	0	0
“ D, Division 1	10	7	7	4
“ D, Division 2	10	8	8	1
“ D, Division 3	0	0	0	0
“ E.....	2	2	1	1
“ F.....	8	4	4	3
“ G.....	1	1	1	0
“ S.....	18	18	17	8
	<hr/> 79	<hr/> 59	<hr/> 54	<hr/> 26
<i>Water:</i>				
First Class	10	10	10	7
Second Class	2	1	1	1
Third Class	5	3	3	3
Fourth Class	28	28	25	19
	<hr/> 45	<hr/> 42	<hr/> 39	<hr/> 30
Combined Total	<hr/> 124	<hr/> 101	<hr/> 93	<hr/> 56

Percentage of number accepted for the examination to number of applicants 81.45%
 Percentage of number of licenses issued to number examined 60.0%

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Under the new classification, the number of applicants was reduced from 161 during the year 1931-1932 to 124 during the past year. The restrictions included in the revised Rules and Regulations relative to qualifications for admission to the examinations allowed the department to accept 81.45 per cent. of the number making application for an examination.

WATERS USED ON INTERSTATE CARRIERS

From year to year the number of certificates issued to railroad, vessel and airway companies for the use of water upon carriers engaged in interstate traffic has materially increased. During the past year, one hundred and eleven certificates were issued to such companies. The work entails considerable time inasmuch as special samples have to be collected from the supplies upon which the certificates are issued, field investigations made and the results must be tabulated and interpreted on each supply. These certificates are mailed in triplicate to the Treasury Department of the Federal Government, which forwards the same to the interstate carriers.

PHYSICAL CONNECTIONS

Chapter 13 of the State Sanitary Code, enacted on September 18, 1928, provided that, after April 1, 1929, physical connections shall not be permitted except where such physical connections existed on April 1, 1929.

The following table contains data relating to the physical connections existing on April 1, 1929, and approved by the Department of Health of the State of New Jersey. Permits under the Code are reissued from year to year upon application made by the industry and approved by the local board of health within which territory the physical connections are maintained.

The following table No. 4 lists the physical connections between approved public supplies and unapproved private supplies:

TABLE No. 4—PHYSICAL CONNECTIONS BETWEEN APPROVED PUBLIC POTABLE WATER SUPPLIES AND UNAPPROVED PRIVATE WATER SUPPLIES

NAME OF MUNICIPALITY	NAME OF COMPANY	PUBLIC POTABLE WATER SUPPLY	UNAPPROVED WATER SUPPLY	NUMBER AND SIZE OF CONNECTION
Arlington	Du Pont Viscoloid Co., Inc.	Kearny Water Department (North Jersey District Water Supply Commission)	Drilled wells	1-4" 8-6"
Avenel	Steel Equipment Corporation	Middlesex Water Company	Artesian well	2-6"
Bayonne	American Radiator Company	Bayonne Water Department (North Jersey District Water Supply Commission)	Rain water from reservoir	1-4"
Bayonne	The Babcock and Wilcox Co.	Bayonne Water Department (North Jersey District Water Supply Commission)	Salt water system	2-6"
Belleville	Eastwood-Nealley Corporation (formerly Eastwood Corp.) (originally Eastwood Wire Corporation)	Belleville Water Department (Newark Water Supply)	Passaic River	1-6"
Bloomfield	The Clark Thread Company	Bloomfield Water Department (Newark Water Supply)	Third River	1-10"
Bloomfield	Consolidated Safety Pin Company	Bloomfield Water Department (Newark Water Supply)	Tony's Brook	1-6"
Bloomfield	General Electric Co.	Bloomfield Water Department (Newark Water Supply)	Open reservoir—factory fire pump cistern	1-6"
Bloomfield	Thomas Oakes & Co., Inc.	Bloomfield Water Department (Newark Water Supply)	Third River	1-4" 1-6"
Bloomfield	Westinghouse Lamp Co.	Bloomfield Water Department (Newark Water Supply)	Artesian well	1-6"
Bogota	Continental Paper Co.	Hackensack Water Company	Pump suction—Hackensack River	1-6"
Bogota	Federal Paper Board Company, Inc.	Hackensack Water Company	Hackensack River	1-6"
Bridgeton	Martin Dyeing and Finishing Company	Bridgeton	East Lake	1-3"
Burlington	Burlington Silk Mills, Inc.	Burlington	Spring water reservoir	1-6"
Burlington	U. S. Pipe and Foundry Company	Burlington	Delaware River	1-4"
Butler	American Hard Rubber Company	Butler	Pequanock River	1-8"
Butler	Pequanoc Rubber Company	Butler	Pequanock River	2-6"
Camden	Armstrong Cork Company	Camden	Delaware River and artesian well water	1-2 1/2" 1-3"
Camden	Campbell Soup Company	Camden	Delaware River	1-6"
Carlstadt	Franco-American Chemical Works, Inc.	Hackensack Water Company	Artesian well	1-6"
Carlton Hill (East Rutherford)	Standard Bleachery and Printing Company	Hackensack Water Company	Passaic River and artesian well	1-6"
Carteret	Foster Wheeler Corporation	Middlesex Water Company (Perth Amboy)	Private wells	1-6"
Clifton	Clifton Paper Board Company, Inc. (formerly Clifton Paper Mills)	Passaic Valley Water Commission	Passaic river	1-6"
Clifton	Dundee Textile Company	Passaic Valley Water Commission	Dundee Canal	1-6"
Clifton	Eureka Printing Company	Passaic Valley Water Commission	Weasel Brook	1-6"
Clifton	Givaudan-Delawanna, Inc.	Clifton	Well and city water	1-6"

Clifton	Haberland Manufacturing Company	Jersey City	Reservoir fed by springs	1-8''
Clifton	Henry Doherty Silk Company (formerly Textile Buildings Company)	Passaic Valley Water Commission	Private supply and cistern	1-6''
East Newark	The Clark Thread Company	New York and New Jersey Suburban Water Company (Passaic Valley Water Commission)	Reservoir filled from city main	1-10''
East Newark	Stewart Hartshorn Company	New York and New Jersey Suburban Water Company (Passaic Valley Water Commission)	Fire protection and hot well	2-6''
East Orange	Crocker Wheeler Electric Manufacturing Company	East Orange	Well	1-8''
East Orange	General Electric Company	East Orange	Open reservoir, factory fire pump cistern (process water)	1-6''
East Orange	The A. P. Smith Manufacturing Company	East Orange	Deep well	1-8''
Edgewater	Aluminum Company of America (formerly The U. S. Aluminum Company)	Hackensack Water Company	Hudson River	1-8''
Edgewater	The Barrett Company	Hackensack Water Company	Hudson River	1-8''
Edgewater	Spencer Kellogg & Sons, Inc.	Hackensack Water Company	Hudson River	1-10''
Fairview	Bellman Brook Bleachery Company	Hackensack Water Company	Overpeck Creek and Wolf Creek	1-8''
Garfield	Garfield Worsted Mills	Garfield	Garfield Worsted Mill's general service water	1-6''
Garfield	Samuel Hird & Sons, Inc.	Garfield	Passaic River	1-6''
Garwood	Acollan Company (formerly Votey Organ Company)	Plainfield-Union Water Company	Driven well	1-8''
Garwood	Knickerbocker Ice Company	Plainfield-Union Water Company	Driven well	1-2''
Gloucester	Armstrong Cork Company	Gloucester City	Delaware River	1-8''
Gloucester	The Hinde & Dauch Paper Company	Gloucester City	Delaware River	1-6''
Gloucester	The Lang Company	Gloucester City	Delaware River	1-4''
Hackensack	Harper Brothers, Inc. (formerly Wm. Campbell Wall Paper Co.)	Hackensack Water Company	Reservoir filled from brook	1-6''
Harrison	Hyatt Roller Bearing Company	New York and New Jersey Suburban Water Company (Harrison Water Department)	Deep wells	1-8''
Harrison	R. C. A. Radiotron Company, Inc.	New York and New Jersey Suburban Water Company (Harrison Water Department)	Plant fire reservoir	1-8''
Harrison	Stewart Hartshorn Company	New York and New Jersey Suburban Water Company (Harrison Water Department)	Fire protection and hot well	2-8''
Hightstown	Hightstown Rug Company	Hightstown	Rocky Creek	1-6''
Hoboken	United Drydocks, Inc. (Fletcher Plant)	Hoboken (Jersey City Water Department)	Hudson River	1-6''
Hohokus	Hohokus Bleachery	Hohokus	Hohokus Creek	1-8''
Jersey City	The Clark Thread Company	Jersey City	Reservoir	1-8''
Jersey City	Colgate-Palmolive-Peet Company	Jersey City	Hudson River water	1-8''
Jersey City	Consolidated Laundries Corporation	Jersey City	Cistern	2-10''
Jersey City	Eureka Fire Hose Manufacturing Company	Jersey City	Cistern	1-6''
Jersey City	P. Lorillard Company	Jersey City	Cistern	1-8''
Jersey City	The Riegel Sack Company	Jersey City	Rain water and make-up water from city main	2-8''
			Cistern	2-8''

TABLE No. 4—PHYSICAL CONNECTIONS BETWEEN APPROVED PUBLIC POTABLE WATER SUPPLIES AND UNAPPROVED PRIVATE WATER SUPPLIES—Continued

NAME OF MUNICIPALITY	NAME OF COMPANY	PUBLIC POTABLE WATER SUPPLY	UNAPPROVED WATER SUPPLY	NUMBER AND SIZE OF CONNECTION
Jersey City	Peter J. Schweitzer, Inc.	Jersey City	Cistern	1—6"
Kearny	Barbour Flax Spinning Company	Kearny (North Jersey District Water Supply Commission)	Passaic River and three wells in north yard	2—6"
Kearny	Congoleum-Nairn, Inc.	Kearny (North Jersey District Water Supply Commission)	Plant system from Passaic River	2—8"
Kearny	Seaboard By-Product Coke Company	Kearny (North Jersey District Water Supply Commission)	Plant service water, Hackensack River	1—6"
Kearny	Swift and Company	Kearny (North Jersey District Water Supply Commission)	Well water	2—8"
Kearny	Western Electric Company (formerly Ford Motor Company)	Kearny (North Jersey District Water Supply Commission)	Well water	1—8"
Keyport	Whitall Tatum Company	Keyport	Passaic River	2—12"
Linden	The Simmons Company	Elizabethtown Water Company, Inc.	Private well	1—8"
Linden	Volupte, Inc. (formerly Superior Products Corp.)	Elizabethtown Water Company, Inc.	Elevated gravity tank (city water)	1—4"
Little Falls	The Beattie Manufacturing Company	New York and New Jersey Water Service Company	Passaic River	1—6"
Little Falls	Little Falls Laundry Company	New York and New Jersey Water Service Company	Raceway	1—6"
Maurer	American Smelting and Refining Company	Perth Amboy Water Department	Staten Island Sound and plant reservoir	1—4"
Milltown	Michelin Tire Company	Milltown	Laurence Brook	1—6"
Millville	The Millville Manufacturing Company	The Millville Water Company	Maurice River	2—10"
Millville	Whitall Tatum Company	The Millville Water Company	Maurice River	1—6"
Montclair	T. A. Adams	Montclair (North Jersey District Water Supply Commission)	Private artesian wells	2—6"
Montclair	Jarvie Commonweal Fund (formerly Estate of James N. Jarvie)	Montclair (North Jersey District Water Supply Commission)	Artesian well	1—8"
Newark	L. E. Waterman Company	Newark	Well	2—6"
Newton	Associated Dyeing and Printing Company, Inc. (formerly Sussex Print Works)	Newton	Suction reservoir supplied by rain water	1—4"
North Bergen	Gatti-Reilly Corp. (formerly U. S. Rubber Company)	Hackensack Water Company	City water cistern	1—8"
Orange	Thomas A. Edison, Inc.	Orange	Deep rock wells, T. A. Edison plant	1—6"
Orange	Orange Dairy Company, Inc.	Orange	Private well	1—8"
Passaic	The Acheson Harden Company	Passaic Valley Water Commission	Cistern, city water and well water	1—2"
Passaic	Andrew McLean Company	Passaic Valley Water Commission	Canal water	1—6"
Passaic	Campbell Morrell and Company, Inc.	Passaic Valley Water Commission	Passaic River	1—6"

Passaic	The Manhattan Rubber Manufacturing Division of Raybestos-Manhattan, Inc. (formerly The Manhattan Rubber Manufacturing Company)	Passaic Valley Water Commission	Wells	1-6"
Passaic	Manhattan Print Works	Passaic Valley Water Commission	Dundee Canal	2-6"
Passaic	Dundee Water Power and Land Company (New Jersey General Security Company, Lessee)	Passaic Valley Water Commission	Dundee Canal	1-6"
Passaic	The Okonite Company	Passaic Valley Water Commission	Canal	2-6"
Passaic	The Pautasote Leather Company	Passaic Valley Water Commission	Weasel Brook	1-8"
Passaic	Passaic Print Works	Passaic Valley Water Commission	Artesian well water	1-6"
Passaic	Robins Conveying Belt Company	Passaic Valley Water Commission	Concrete reservoir	1-6"
Passaic	U. S. Rubber Company (formerly N. Y. Belting & Packing Co.)	Passaic Valley Water Commission	Dundee Canal	1-8"
Paterson	Associated Dyeing and Printing Company, Inc.	Passaic Valley Water Commission	Passaic River	2-6"
Paterson	Barbour Flax Spinning Company (The Linen Thread Co.)	Passaic Valley Water Commission	Passaic River	1-8"
Paterson	Doherty and Wadsworth Company	Passaic Valley Water Commission	Upper Race, Passaic River	1-6"
Paterson	Dolphin Jute Mills	Passaic Valley Water Commission	Artesian well	1-6"
Paterson	Eastwood Realty Company (formerly estate Benjamin Eastwood)	Passaic Valley Water Commission	Raceway fed from Passaic River	2-6"
Paterson	Estate of John Dunlop	Passaic Valley Water Commission	Cistern—Roof drains and well water	1-6"
Paterson	The Hamilton Trust Company of Paterson	Passaic Valley Water Commission	City water to two underground cisterns	1-6"
Paterson	John Hand and Sons, Inc.	Passaic Valley Water Commission	Cistern	1-6"
Paterson	Hall Mills (Vaughn S. Hall)	Passaic Valley Water Commission	Passaic Valley Water Commission's supply stored in private reservoir	1-6"
Paterson	The Madison Avenue Realty Company	Passaic Valley Water Commission	Artesian well and rain water	1-6"
Paterson	The Manhattan Shirt Company	Passaic Valley Water Commission	Cistern filled from roof drains	1-8"
Paterson	Morrison Machine Company	Passaic Valley Water Commission	Passaic River	1-6"
Paterson	National Silk Dyeing Company	Passaic Valley Water Commission	Open reservoir and well	1-6"
Paterson	Public Service Electric and Gas Company	Passaic Valley Water Commission	Dyers pipe from Passaic River	1-8"
Paterson	United Piece Dye Works	Passaic Valley Water Commission	Deep wells	1-8"
Paterson	Marie Walder	Passaic Valley Water Commission	Passaic River above Passaic Falls	1-4"
Paterson	Wright Aeronautical Corporation	Passaic Valley Water Commission	City water cistern	1-6"
Paterson	Chesebrough Manufacturing Company, Cons.	Passaic Valley Water Commission	Open reservoir and well	1-6"
Perth Amboy		Perth Amboy	Raritan River	1-4"
Perth Amboy	General Cable Corporation	Perth Amboy	Well and salt water	1-8"
Perth Amboy		Perth Amboy	Well and salt water	2-4"
Perth Amboy	Raritan Copper Works	Perth Amboy	Wells at plant	1-6"
Phillipsburg	The Standard Silk Company	Peoples Water Company	Wells and cistern	1-8"
Plainfield	International Motor Company	Plainfield-Union Water Company	Private sprinkler system	2-6"
Rahway	Merck and Company, Inc.	Rahway	Wells in plant	2-8"
Raritan	Raritan Woolen Mills and Somerset Manufacturing Company	Somerville Water Company	Wells in plant	1-4"
			Raritan River	2-6"
				2-8"

TABLE No. 4—PHYSICAL CONNECTIONS BETWEEN APPROVED PUBLIC POTABLE WATER SUPPLIES AND UNAPPROVED PRIVATE WATER SUPPLIES—Continued

NAME OF MUNICIPALITY	NAME OF COMPANY	PUBLIC POTABLE WATER SUPPLY	UNAPPROVED WATER SUPPLY	NUMBER AND SIZE OF CONNECTION
Riverside	The Riverside Metal Company (formerly Keystone Watch Case Corporation)	The Delaware River Water Company	Rancocas River	1—6"
Roselle	The Watson Stillman Company	Plainfield-Union Water Company	Wells	1—8"
Ridgefield	Lowé Paper Company	Hackensack Water Company	Deep wells	1—6"
Rutherford	Becton, Dickinson and Company	Hackensack Water Company	Deep wells	1—8"
South Bound Brook	The Rubberoid Company	Bound Brook Water Company	Delaware and Raritan Canal	1—8"
South River	South River Spinning Company, Inc.	South River	Natural springs to pond	1—8"
Trenton	Acme Rubber Manufacturing Company	Trenton	Pond Run Creek	1—2"
Trenton	American Steel and Wire Company	Trenton	Assunpink Creek, Delaware and Raritan Canal	1—6"
Trenton	Crescent Insulated Wire and Cable Company	Trenton	Assunpink Creek	1—12"
Trenton	Murray Rubber Company	Trenton	Assunpink Creek	1—6"
Trenton	Panelyte Corporation	Trenton	Assunpink Creek	2—6"
Trenton	Princeton Worsted Mills, Inc.	Trenton	Delaware River and Trenton water power	1—6"
Trenton	Public Seating Company (formerly New Jersey School Furniture Company)	Trenton	60,000-gallon cistern	1—6"
Trenton	Public Service Electric and Gas Company	Trenton	Delaware and Raritan Canal	2—6"
Trenton	John A. Roebling's Sons Company	Trenton	Delaware and Raritan Canal	1—12"
Trenton	Joseph Stokes Rubber Company	Trenton	Assunpink Creek	2—14"
Union City	The Schwarzenbach Huber Company	Hackensack Water Company	City water cistern	1—6"
West Orange	T. A. Edison, Inc.	Commonwealth Water Company	Artesian wells	1—8"
Wharton	Gotham Silk Hosiery Company, Inc.	Wharton	Rockaway River	2—6"
				1—8"

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THE DISPOSAL OF SEWAGE FROM NORTH JERSEY
SEASHORE MUNICIPALITIES

For several years past, the department has been endeavoring to improve the sewage treatment plants at the North Jersey coast resorts in order to make more safe for bathing purposes the beaches in the municipalities along the North Jersey coast. A great number of these municipalities have adhered to the requirements of the department and have improved their municipal sewage treatment works, thereby protecting adjoining and other nearby municipalities which use the waters of the Atlantic Ocean for bathing purposes during the summer season. One of these municipalities is under court orders to improve its sewage treatment works, and, to forestall such improvement, it had prepared a bill for submission to the Legislature which has been enacted into law and is known as Chapter 50 of the P. L. of 1933. This statute will allow municipalities under court orders to appeal to the court for an extension of time in the improvement of their municipal sewage treatment works. The law is printed in the forepart of the report.

In 1928 there were eighteen sewage treatment plants serving the fifteen municipalities from Long Branch to Point Pleasant, which plants, having sedimentation as the only method of treatment, discharge their plant effluents into the Atlantic Ocean. In the summer of 1928, before chlorination was installed as a method of treatment, the samples for bacteriological examination collected from the surf at sixty beaches located in these municipalities, indicated the average B. Coli content to be 56.7 per cubic centimeter on ebb tide and 49.0 per cubic centimeter on flood tide. From the flow figures determined during the inspections from 1930 to 1932, it was found that approximately 12,805,200 gallons of sewage were being discharged daily into the Atlantic Ocean from these fifteen municipalities.

During the summer of 1930, surf samples were again collected at the bathing beaches from Long Branch to Point Pleasant. At that time 75 per cent. of the sewage treatment plants serving the fifteen municipalities had installed and in operation chlorine apparatus. The chlorinated sewage was approximately 45 per cent. of the total volume of sewage discharged from the afore-

mentioned area. The average density of *B. Coli* in the samples collected from the sixty bathing beaches was 1.64 per cubic centimeter on ebb tide and 3.4 per cubic centimeter on flood tide.

In July, 1932, similar collections of surf samples were made at all beaches extending from Keyport to Bayhead. At that time 80 per cent. of the sewage treatment plants serving the shore municipalities, from Long Branch to Point Pleasant, were using chlorine as part of the treatment process. Approximately 77 per cent. of the total volume of sewage discharged from the above area was being chlorinated. The average density of *B. Coli* in the samples collected was 0.54 per cubic centimeter on flood tide and 0.84 per cubic centimeter on a split tide.

The above data follows in tabulated form :

Average *B. Coli* Content per Cubic Centimeter for Sixty Bathing Beaches from Long Branch to Point Pleasant, Inclusive

<i>Year</i>	<i>Flood Tide</i>	<i>Ebb Tide</i>
1928 (before chlorination)	49.0	56.7
1930 (with 75% of sewage treatment plants chlorinating 45% of the sewage discharged)	3.4	1.64
1932 (with 80% of the sewage treatment plants chlorinating 77% of the sewage discharged)	0.54	0.84 (split tide)

The department is continuing to make investigations at the sewage treatment plants, to collect surf samples and inspect the sewer outfall lines along the North Jersey coast.

Special investigations have been carried on at sewage treatment works in several of the North Jersey seashore municipalities under orders of the New Jersey State Department of Health to improve these works. These municipalities have not as yet complied with the orders of the department, the investigations being made for the purpose of obtaining the necessary data for court proceedings.

Inspections have been carried on, as in the past, to determine as to the serviceability of the ocean outfall pipe lines at the North Jersey coast resorts for properly disposing of the sewage effluent being discharged from the municipal sewerage works into the Atlantic Ocean and tributary waters. In four of the municipalities breaks were found to exist in these lines which necessitated the

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department's issuance of immediate orders against the municipalities to repair the lines so as to protect bathing and shellfish waters.

BATHING POOLS

The department, desiring to formulate means for the sanitary protection of the bathing public and to provide a uniform design for the construction of pools in this State, adopted the following preamble and resolution at a meeting held on September 13, 1932 :

"WHEREAS, Public swimming pools, indoor and outdoor, are potentially important sources of dissemination of disease; and

"WHEREAS, The number of such pools in the State is rapidly increasing, some of them in small communities where they are not subject to adequate local health codes and inspections; and

"WHEREAS, There is no State law or State regulation governing such public utilities; therefore,

"Be it Resolved, That the Bureau of Engineering, with the aid of other Bureaus, be instructed to prepare and present to the Board not later than its December, 1932, meeting, tentative data and recommendations for the drawing of a bill to present to the next legislature looking to suitable regulation of public swimming pools."

In the discussion of this law before the meeting of the Health Officers Association in January, 1933, a committee from that Association was appointed to meet with representatives of the Department to provide in the bill a means whereby local boards of health would have concurrent jurisdiction with the New Jersey State Department of Health over supervision of pools, allowing the design of construction to remain as provided for in the original bill under the authority of the State Department of Health. This bill and the committee substitute were not passed and no law has been enacted upon the subject of bathing pools in New Jersey. The present jurisdiction over bathing pools is lodged in the local administrations of municipalities. A copy of the proposed bill, as amended, submitted to the 1933 Legislature for action, is as follows :

COMMITTEE SUBSTITUTE FOR ASSEMBLY No. 167

An Act concerning swimming pools and baths.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. From and after the first day of October, one thousand nine hundred and thirty-three, no person shall construct, alter, add to, improve, operate, maintain

or conduct any swimming pool or bath in this State, without first making application and obtaining a license therefor from the Department of Health of the State of New Jersey, which license shall expire on the thirtieth day of September of each year and shall be renewed annually; *provided, however*, that in the case of new swimming pools and/or baths the application shall first be approved as to the location and establishment of said swimming pool and/or bath by the local board of health or body exercising the powers thereof within the jurisdiction where said swimming pool and/or bath is located; *and provided further*, when application is made for a license or renewal of license for the operation, maintenance and/or conduction of any established swimming pool and/or bath, said application shall first be approved by the local board of health or other body exercising powers therein. The Department of Health of the State of New Jersey may, in its discretion, issue or refuse to issue a license for the aforementioned purpose or purposes.

2. The Department of Health of the State of New Jersey is hereby authorized and empowered to make, adopt and enforce such rules and regulations as in its opinion may from time to time be necessary for the design, construction, alteration, addition to or improvement of, the operation, maintenance and/or conduction of any swimming pool and/or bath, and the sanitary conditions of the premises upon which, or in which, any such swimming pool and/or bath is located, as well as such swimming pool and/or bath, and the use by bathers or spectators of any said swimming pool and/or bath, and the premises thereof, and as to the amount, character, quality, purification and/or treatment of the water used in such swimming pool or bath, and the discharge of such water therefrom directly into any stream of water in this State, and for the location of any swimming pool and/or bath where the same is situate in or on any stream in this State; *provided*, that in such rules and regulations the minimum requirement for the quality of the water used in any such swimming pool and/or bath shall provide that not more than two out of five samples of the water supply admitted to the swimming pool and/or bath, or of the water of any part of the said swimming pool and/or bath, when such swimming pool and/or bath is in use, collected on the same day, or not more than three out of any ten consecutive samples, collected on different days, shall show a positive test for the organisms of the B. Coli group in ten cubic centimeters of water.

3. For the purpose of this act the rules and regulations hereunder established relating to the operation, maintenance and/or conduction of any swimming pool and/or bath, and the sanitary conditions of the premises upon which, or in which, any such swimming pool and/or bath is located, as well as such swimming pool and/or bath, and the use by bathers or spectators of any said swimming pool and/or bath, and the premises thereof, and as to the amount, character, quality, purification and/or treatment of the water used in such swimming pool and/or bath, and the discharge of such water therefrom directly into any stream of water in this State, and for the location of any swimming pool and/or bath where the same is situate in or on any stream in this State; *provided*, that in such rules and regulations the minimum requirement for the quality of the water used in any such swimming pool and/or bath shall provide that not more than two out of five samples of the water supply admitted to the swimming pool and/or bath, or of the water of any part of the said swimming pool and/or bath, when such swimming pool and/or bath is in use, collected on the same day, or not more than three out of any ten consecutive samples,

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collected on different days, shall show a positive test for the organisms of the B. Coli group in ten cubic centimeters of water, shall be considered as minimum rules and regulations in so far as local boards of health or other bodies exercising the powers therein have jurisdiction in such matters.

4. When in the opinion of the Department of Health of the State of New Jersey the provisions of this act or the rules and regulations of the Department of Health adopted hereunder have been violated by any person, the Department of Health of the State of New Jersey shall have the power to suspend or revoke any permit or license issued by the said Department.

5. Plans, specifications and other required information and data relating to the construction, equipment, alteration, addition to or improvement of, and the operation, maintenance and conduction of any swimming pool and/or bath shall be filed with the Department of Health of the State of New Jersey in manner set out in the rules and regulations of the said Department of Health adopted under this act, and the plans and specifications must first be approved by the Department of Health of the State of New Jersey before any work upon any swimming pool and/or bath is begun.

6. The Department of Health of the State of New Jersey shall have supervision over the construction, alteration, addition to or improvement, from a sanitary standpoint, of all swimming pools and/or baths, as well as the supervision over the operation, maintenance and/or conduction of any such swimming pool and/or bath and the premises thereof. Local boards of health or other bodies exercising the powers thereof may enforce the provisions of this act as well as the rules and regulations adopted by the Department of Health of the State of New Jersey by virtue of the authority herein granted said Department of Health, in so far as said provisions and rules and regulations relate to the operation, maintenance and/or conduction of swimming pools and/or baths, and the sanitation of the premises wherein such swimming pools and/or baths are located.

7. Representatives of the Department of Health of the State of New Jersey, and the local boards of health or other bodies exercising the powers thereof having jurisdiction in the premises, are hereby authorized and empowered to make inspections of swimming pools and/or baths and the premises thereof and to obtain samples, and shall at all times for said purposes have access to any and all swimming pools and/or baths and the premises whereon or wherein same is or are located. Any person who shall interfere with or prevent any representative of the Department of Health of the State of New Jersey or representative of the said local boards of health or other bodies exercising the powers thereof from carrying out any of the provisions of this section shall be guilty of a violation of this act.

8. The Department of Health of the State of New Jersey, or the Director of Health of said department, may require, under the provisions of this act or the rules and regulations adopted by the said Department of Health, a change in the construction, equipment, alteration, addition to, improvement of, or operation, maintenance and/or conduction of any swimming pool and/or bath, under notice given to any person operating, maintaining and/or conducting said swimming pool and/or bath within a period of time specified in said notice which shall not exceed three months from the date of the issuance of such notice.

9. Upon evidence duly ascertained by the Department of Health of the State of New Jersey or furnished to said department by any local board of health or other body exercising the powers thereof in matters over which said local boards of health or other bodies exercising the powers thereof have jurisdiction, that the person responsible under the license provided for by this act is violating any of the provisions of the act or the rules and regulations adopted hereunder, then it shall be the duty of the Department of Health of the State of New Jersey or the Director of Health of said department upon proof of allegations, after hearing, to revoke said license; *provided, however*, that the Department of Health of the State of New Jersey when in its judgment, or the Director of Health when in his judgment, the protection of the public health warrants, may, before hearing, suspend said license pending said hearing, and, in the event that said license is suspended, it shall be unlawful for said person to continue the construction, alteration, addition to, improvement of, operation, maintenance and/or conduction of any swimming pool or bath and the premises thereof.

10. Any person violating any of the provisions of this act or the rules and regulations adopted under it by the Department of Health of the State of New Jersey shall be subject to a penalty of not less than twenty-five dollars (\$25.00) nor more than one hundred dollars (\$100.00) for each and every violation; and each day's continuance after the date of expiration of any notice of such violation shall constitute a separate violation, and any penalty or penalties incurred under any of the provisions of this act or the rules and regulations of the Department of Health of the State of New Jersey adopted hereunder, may be recovered with costs in a summary proceedings in any competent court of jurisdiction in this State by the Department of Health of the State of New Jersey, or by any local board of health or body exercising the powers thereof having jurisdiction in the premises; and further, the Department of Health of the State of New Jersey, or any local board of health or body exercising the powers thereof having jurisdiction in the premises, whether or not the penalty or penalties above prescribed shall have been sued for or recovered, may file a bill in the Court of Chancery for an injunction to restrain any violation of this act or the rules and regulations adopted hereunder and for such other and further relief in the premises as the Court of Chancery may deem proper; in the case of the Department of Health of the State of New Jersey the bill shall be filed in the name of the State, on the relation of said Department of Health, for an injunction to prohibit the further violation of the provisions of this act or the rules and regulations adopted hereunder by the Department of Health of the State of New Jersey, and every such action by the Department of Health of the State of New Jersey shall proceed in the Court of Chancery according to the rules and practice relating to bills filed in the name of the Attorney General on the relation of individuals; cases of emergency shall have precedence over other litigation pending at the time in the Court of Chancery, and may be heard on final hearing within such time and on such notice as the Chancellor shall direct.

Any and all moneys obtained through license fees or from penalties collected under the provisions of this act by the Department of Health of the State of New Jersey shall be payable to the Department of Health of the State of New Jersey, and the said Department of Health shall transmit the same to the State Treasurer, who shall place said moneys to the credit of and for expenditure by the said Department of Health in the enforcement of the provisions of this act

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and the rules and regulations adopted hereunder by the Department of Health of the State of New Jersey; any moneys obtained through penalties recovered by any local boards of health or bodies exercising the powers thereof shall be paid into the treasury of the municipality.

11. Nothing in this act contained shall prevent any local board of health or other body exercising the powers thereof from making, adopting and enforcing rules and regulations governing the operation, maintenance and/or conduction of any swimming pool and/or bath and the premises thereof.

12. Definitions:

(a) The word "person", as used in this act, shall be construed to mean and include both the singular and the plural, as the case may demand, and shall include municipalities, counties and boards, departments, commissions, or other bodies of such counties or municipalities, as well as individuals, corporations, companies, firms, partnerships, school boards, associations, societies, religious or charitable organizations, institutions, clubs, and any and all other bodies of persons associated for any purpose whatever.

(b) Swimming pools and/or baths shall be construed to mean and include all pools or baths outdoor and indoor, which are partially or entirely of artificial construction, or any waters impounded or walled in whole or in part for swimming, bathing or wading in this State, and shall exclude any swimming or wading pool and/or bath established and maintained upon any dwelling premises, or the riparian waters adjoining such dwelling premises, by any individual for his own or his family's use or the use of the visitors or guests of his household.

13. Each person shall pay to the Department of Health of the State of New Jersey fees as follows:

For the examination of plans and specifications and other engineering data which have for their purpose the establishment of new swimming pools and/or baths \$25.00

For the issuance and again for the renewal of any license under the provisions of this act \$25.00

14. No county or municipality, and no board, body, department or commission of said county or municipality, or any school board, religious or charitable organization, shall be required to pay for any license issued in accordance with the provisions of this act, for constructing, operating, maintaining or conducting a swimming pool or bath or for the renewal of any license granted under the provisions of this act for the operation, maintenance or conducting of any swimming pool or bath in this State.

15. All acts and parts of acts inconsistent with the provisions of this act be and same are hereby repealed; and, if any section or parts thereof of this act shall be questioned in any court, and shall be held to be unconstitutional and void, the sections or parts thereof so declared to be invalid shall be excinded, and the balance of the act shall stand as though said sections or parts thereof had never been included within the provisions of this act.

16. This act shall take effect on the first day of October, one thousand nine hundred and thirty-three.

STREAM SAMPLING STATIONS

In assuming the stream sampling station work in the State, which in the past was conducted to a limited extent by the State

Water Policy Commission as a guidance toward the use of surface water supplies, stream sampling stations were set up by the Department of Health of the State of New Jersey for the purpose of collecting samples and gathering the necessary data that would lead in time to:

1. The protection of existing and proposed public potable water supplies.
2. The sanitary protection of recreational centers used for bathing purposes.
3. The determination of sources of pollutions.
4. The protection of fish life.
5. The protection of stream waters for agricultural use, irrigation, stock watering, etc.
6. The quality and character of water which may be used by various industries in manufacturing processes.

This work was begun in August 1932, sampling stations being established on all streams of the State, the locations being governed by sewage and trade waste treatment plants, water supply intakes and recreational centers existing and proposed on such streams.

Twenty-five stations were established in the Camden area, covering the watersheds of Newton, Cooper, Woodbury, Timber and Rancocas Rivers and Creeks, a total area of approximately 750 square miles, the water from which receives the effluents from about 30 sewage treatment plants as well as trade waste plants. About 50 sampling stations were established in the congested area of Northern Jersey on the watersheds of the Raritan, Rahway, Elizabeth, Hackensack, Passaic, Whippany and Rockaway Rivers, covering an area of approximately 2,500 square miles, the waters of which receive the effluents from about 80 sewage treatment plants along with trade waste plants.

There are a total of 204 collection points; from 158 of these points samples are collected by this bureau, from 42 of the points samples are collected by the State Water Policy Commission and analyzed by this department, and from 4 of the points samples are collected and analyzed by the North Jersey District Water Supply Commission.

Collections are carried out under a routine schedule and are rotated so that samples from every collection point are taken under all seasonal variations.

Of the 158 collection points from which samples are taken by the Bureau of Engineering 104 samples are collected four times a year and 54 samples twice a year, the latter being from stations located in the vicinity of recreational centers and are collected during the summer season only.

The importance of the work is shown in the numerous requests received by the department for information upon the use of certain waters for potable and recreational purposes, the use of the streams for the dispersing of effluents from sewage and trade waste treatment plants, as well as the use of waters in industrial processes. Graphical charts and other data are kept in such form that the department can immediately determine as to the quality and character of the water from the streams at the different sampling points.

Where heavy pollution is shown to occur in any of the results of the analyses of the samples collected sanitary surveys are immediately made by the bureau's representatives to determine the source of the pollution and adopt means for the abatement of the same.

THE ESTABLISHMENT OF FACTORIES ON WATERSHEDS

During the past year, under the provisions of Chapter 280, P. L. of 1921, the department approved of applications for the construction of industrial plants upon the watersheds in this State as follows:

Montvale—Montvale Service Station (Joseph Scalabrini)—Cider Factory, Bear Brook, a tributary of Hackensack River.

Old Tappan—Bergen Cider Mill (Frank Griffin)—tributary of Hackensack River.

Boonton—(Carman & Company)—Soap Factory, tributary of the Passaic River.

Since the adoption of the aforementioned law in 1921, there have been fifteen applications granted by the department for the establishment of factories on the watersheds in this State.

The following table No. 5 lists the public potable water supplies in operation in the State at the end of the fiscal year, June 30, 1933:

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Allendale (Municipality)	2 driven wells, 450'-500' deep	Rapid sand filtration (pressure) and lime treatment for iron removal	1,730	1,730	70	P	124.4	81.1
Allenhurst (Municipality)	6 driven wells, 500'-600' deep		573	573*	178	P	81.4	70.0
Allentown (Municipality)	Tributary to Doctor's Creek	Rapid sand filtration (gravity) and chlorination	706	706	24	P	24.7	23.0
Asbury Park (Municipality)	11 driven wells, 1100'-1135' deep	Aeration and rapid sand filtration (pressure) for iron removal	14,981	12,000*	1,325	P	40.3	25.0
(Neptune Twp., part)			10,625	7,575*	....	..	162.5	159.0
Associate Property Owners (Gillette Section of Passaic Township)	1 driven well, 410' deep		2,149	350	....	..	162.5	159.0
Atlantic City (Municipality)	13 driven wells, 86'-210' deep and Absecon Creek	Chlorination for surface supply	66,198	66,198*	12,336	P	18.2	1.3
Atlantic County Water Co. of New Jersey (Absecon)	Bargaintown Pond at Pleasantville, 2 driven wells at Somers Point, 118' deep; 2 driven wells at Pleasantville, 125' deep	Chlorination for surface supply	2,158	2,158*	600	P	9.1	31.6
(Linwood)			1,514	1,514*				
(Northfield)			2,804	2,804*				
(Pleasantville)			11,580	11,580*				
(Somers Point)			2,073	2,073*				
Atlantic Highlands (Municipality)	3 driven wells, 100'-600' deep	Aeration and rapid sand filtration (pressure) for iron removal	2,000	2,000*				
(Middletown Twp., part)			9,209	50	185	P	56.7	37.0
Avalon (Municipality)	3 driven wells, 925'-950' deep	Chlorination	343	343*	175	P	45.7	88.0
Avon (Municipality)	3 driven wells, 500'-1150' deep	Filtration, rapid sand (pressure) for CO ₂ and iron removal	1,220	1,220*	138	P	40.3	33.0
Barnegat City (Municipality)	1 driven well, 510' deep		144	75*	2	P	39.0	99.0
Barnegat Water Co. (Barnegat Section of Union Twp.)	2 driven wells, 150'-152' deep		144	69*	48	P	15.0	1.5
Bartley, A. H. (Mount Olive Twp., Bartley Section, part)	Spring		1,037	500*	....	G	9.5	13.0
Bassett Park Assoc. (Bassett Park Section of Mine Hill Twp.)	1 driven well, 102' deep		1,235	150	....	G	9.5	13.0
Beach Haven (Municipality)	3 driven wells, 575'-615' deep		1,422	250	....	P	25.6	31.0
			715	715*	206	P	11.1	11.0

Beaver Brook Water Co. (Lebanon)	Buys water from Clinton Water & Water Supply Co.		550	550	....	..	....	....
Belmar (Municipality) (South Belmar) (Wall Twp., West Belmar Section)	9 driven wells, 655' deep		3,491	3,491*	563	P	84.3	80.0
Berlin (Municipality) (Berlin Twp., part)	4 driven wells, 70'-839' deep		886	886*				
Berrien, Estate of A. L. (West Windsor Twp.) (Berrien City and Princeton Gardens Section)	1 driven well, 98' deep		3,540	150*	142	P	13.2	2.0
Bernards Water Company (Bernardsville) (Bernards Twp., Basking Ridge Section)	Passaic River	Slow sand filtration and chlorination	1,955	1,955				
Blackwood Water Co. (Gloucester Twp., Blackwood Section)	6 driven wells, 45'-387' deep	Chlorination	1,537	1,200				
Blair Academy Water Department (Blairstown, Town)	2 driven wells, 300' deep	Chlorination	1,711	200	....	P	37.7	51.0
Bloomsbury (Municipality)	Mountain springs	Rapid sand filtration (pressure) and chlorination	1,336	1,336	306	P	76.8	79.7
Bogota Water Company (Bogota)	1 driven well, 180' deep		2,293	670				
Boonton (Municipality) (Boonton Twp., part)	Stony Brook	Chlorination	5,820	1,450	104	P	61.0	34.5
Bordentown (Municipality) (Bordentown Twp., part) (Sells water to White Horse Water Company)	2 driven wells, 38'-43' deep	Chlorination	1,416	800	58	P	142.9	205.0
Bound Brook Water Co. (Bound Brook) (Bridgewater Twp., part) (Middlesex Boro, part) (South Bound Brook)	14 springs, 18 driven wells	Rapid sand filtration (pressure) and chlorination	639	639	63	G	43.7	20.1
Branchville (Municipality)	Dry Brook	Chlorination	7,341	5,041	96	P	161.0	113.3
Brugeton (Municipality)	West Branch of Cohansey River; buys water from Fairbanks Morse Water Supply Co.	Rapid sand filtration (gravity) and chlorination	6,866	6,866	827	G&P	22.1	13.8
Bridgeport Water Co. (Bridgeport, Logan Twp.)	5 driven wells, 40' deep		623	100				
Brigantine City (Municipality)	1 driven well, 829' deep		4,405	4,405	694	P	24.9	2.5
Brooklawn (Municipality) (Crescent Park Section of Bellmawr)	2 driven wells, 152'-165' deep		818	75				
Brown's Mills Co., The (Pemberton Twp., Brown's Mills Section)	1 driven well, 300' deep							
Buckhorn Springs Water Co. (Belvidere)	Buckhorn Creek and 2 driven wells, 81-92' deep	Chlorination and ammoniation for surface supply	7,372	7,372	411	G&P	57.2	16.0
			3,352	2,000				
			3,504	500				
			1,763	1,763				
			665	615	120	G	20.0	10.0
			15,699	15,699	3,093	P	22.8	3.3
			1,860	800	20	P	26.0	9.0
			357	357*	146	P	47.6	38.0
			1,753	1,753	155	P	63.8	69.0
			1,123	100				
			1,929	200*	89	P	65.5	93.0
			2,073	2,073*	381	G	18.8	15.0

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1980 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Burlington (Municipality) (Springside Section of Burlington Twp.)	Delaware River	Coagulation, rapid sand filtration (gravity) and chlorination	10,844	10,844	1,134	P	43.5	14.5
(Burlington Twp., part)			2,587	250				
Butler (Municipality)	Aphsawa and Kikeout Brooks	Chlorination	2,587	100				
(Bloomingdale)			3,392	3,392	748	G	19.2	7.0
(Pompton Lakes)			2,543	2,543				
(Riverdale)			3,104	3,104				
(Wanaque)			1,052	550				
Califon Water Company (Califon)	3 springs	Chlorination	3,119	2,500				
Camden (Municipality)	8 driven wells, 118'-183' deep at Camden; 5 driven wells, 150'-200' deep at Puchach Field; 9 driven wells at Morris Station; 4 driven wells, 120'-144' deep at Delair		534	500	23	G	35.1	20.0
			118,700	105,000	15,249	P	51.5	21.3
Camp Meeting Assoc. of Newark Conference, M. E. (Hanover Twp., Mt. Tabor Section)	2 springs, 2 driven wells 30'-40' deep	Chlorination	2,516	200*	24	P	37.0	28.5
Canfield, Nettie (Mt. Olive Twp., Budd Lake Section)	1 spring		1,235	50*	....	G	18.2	29.0
Cape May (Municipality) (South Cape May)	6 driven wells, 290'-312' deep; 1 surface well, 30' deep	Chlorination	2,637	2,637*	919	P	37.7	57.5
(West Cape May) (Lower Township, part)			6	6*				
Cape May Point (Municipality) (Lower Township)	1 driven well, 602' deep; 4 shallow wells, 16'-20' deep		1,048	1,048*				
Chatham (Municipality)	7 driven wells, 88'-326' deep		1,444	100				
Chatham Colony Assoc. (Floral Hill Section of Chatham)	1 driven well, 276' deep		104	104*	45	P	97.1	300.0
			1,444	400*				
Chester Township (Maple Shade Section) (Municipality)	2 driven wells, 385' deep	Aeration and rapid sand filtration (pressure) for iron removal	3,869	3,500	332	P	90.0	73.0
Clayton (Municipality)	1 driven well, 100' deep	Aeration and lime treatment for iron removal	3,869	369	....	P	118.0	47.0
			5,117	4,000	423	P	50.0	39.0
			2,351	1,500	29	P	26.0	7.0

Clementon (Municipality) (Lindenwold) (Pine Hill)	3 driven wells, 172'-239' deep		2,605 2,523 1,392 2,496	2,605 1,800 800 130*	160	P	60.0	65.0
Cliffwood Beach Co., Inc. (Matawan Twp., Cliffwood Beach Section)	Buys water from Laurence Harbor Heights Company				56	P	28.6	5.0
Clinton Water & Water Supply Co. (Clinton)	Beaver Brook	Ammoniation and chlorination			932	G	75.0	70.0
(Clinton Twp., Amundale Section) (Sells water to Beaver Brook Water Co., supplying Lebanon)			1,856 550	400 550				
Clymer Spring Water Co., Riegelsville, Pa. (Pohatcong Twp., Riegelsville Section)	7 springs		1,974	550	....	G	20.3	14.2
Coast and Inland Development Co. (Dover Twp., Normandy Beach Section)	1 driven well, 1,038' deep		3,970	200*	....	P	20.8	151.0
Collingswood (Municipality) (Haddon Twp., part) (Woodlynne)	3 driven wells, 297'-337' deep	Chlorination, aeration	12,723 9,198 2,878 3,956	12,723 6,000 2,878 1,200	1,230	P	65.7	48.0
Colonial Manor Water Co. (West Deptford Twp., Colonial Manor Section)	1 driven well, 140' deep				36	P	64.0	88.0
Columbus Water Company (Columbus Section of Mansfield Twp.)	3 driven wells, 219'-230' deep		1,709	500	22	P	60.0	75.0
Commonwealth Water Co. (Summit, part) (Hillside Twp., part) (Irvington) (Livingston Twp.) (Maplewood Twp.) (Millburn Twp.) (New Providence Boro) (Passaic Twp.) (New Providence Twp.) (Springfield Twp., part) (Union Twp., part) (West Orange) (Water sold to Elizabethtown Water Co. Cons.)	59 driven wells, 40'-394' deep at Canoe Brook, Baltusrol and Springfield	Canoe Brook Coagulation, rapid sand filtration (gravity) and chlorination	14,566 17,601 56,733 3,476 21,321 8,602 1,918 2,149 1,899 3,725 16,472 24,327	14,566 3,500 56,733 3,476 21,321 6,602 1,918 1,500 1,899 720 2,700 24,327	6,423	P	157.6	83.0
Cook, H. A. Estate (Dutch Neck Section of West Windsor Twp.)	3 shallow wells, 30' deep		1,711	125	....	P	15.0	20.0
Comp. C. A. (Yardville and Yardville Hts. Sections of Hamilton Twp.)	1 spring at Yardville 1 spring at Yardville Heights		27,121	450 60	....	P	24.4 24.0	6.7 33.0
Corson's Inlet Water Co. (Village of Strathmere on Ludlams Beach, Section of Upper Twp.)	1 driven well, 856' deep		1,657	165*	56	P	33.8	68.0
Cranbury Water Co. (Cranbury Village)	2 driven wells, 115'-267' deep	Aeration and lime treatment for CO ₂ removal and chlorination	1,278	1,000	34	P	65.7	56.2

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gals. Per Day	Gravity or Pumped Hardness	Alkalinity
Cranmer (Pearl E.) (White Horse Section of Hamilton Twp.)	1 driven well, 75' deep		2,721	30	3	P 32.5	5.0
Crestmont Realty Co. (Crestmont Park Section of Ewing Twp.)	1 driven well, 163' deep		6,942	150	...	P 47.0	50.0
Crosswicks Water Co. (Crosswicks Section of Chesterfield Twp.)	Spring collecting drains		1,269	510	27	P 28.6	5.0
Delaware River Water Co. (Beverly) (Delanco Twp.) (Edgewater Park Twp.) (Riverside Twp.)	12 driven wells, 60'-70' deep	Chlorination	2,864	2,864			
Denville Township (Municipality)	2 driven wells, 100'-147' deep		2,349	2,000			
Dover (Municipality)	3 driven wells, 67'-200' deep; 12 springs	Chlorination for spring supplies	7,061	5,000	214	P 57.1	48.0
Dugan, Edward J., and Laura (Sparta)	1 spring		10,031	10,000	728	G&P 94.4	40.0
E. I. du Pont de Nemours & Co. (Haskell Section of Wanauque)	4 shallow wells, 25'-30' deep		1,316	150	...	G 193.0	165.0
E. I. du Pont de Nemours & Co. (Deepwater Village and Carney's Point Sections of Upper Penn's Neck Twp.)	3 driven wells, 200'-250' deep		3,119	400	73	P 36.4	24.0
E. I. du Pont de Nemours & Co. (Gibbstown Section of Greenwich Twp.)	1 driven well, 96' deep		3,879	450	38	P 15.0	81.0
East Greenwich Twp. (Mt. Royal, Clarksboro and Mickleton Sections)	1 driven well, 206' deep		2,361	550	20	P 20.8	7.0
East Orange (Municipality)	40 driven wells, 115'-260' deep		2,031	70	25	P 32.5	185.5
Egg Harbor City (Municipality) (Galloway Twp., part)	4 driven wells, 132'-440' deep	Aeration, sedimentation and filtration (pressure) for iron removal and chlorination	68,020	68,020	4,711	P 103.3	82.5
			3,478	3,478	176	P 25.4	5.0
			3,416	200			

Eichler, August (East Greenwich Twp.) (Mickleton Section)	1 driven well, 170' deep		2,081	150	....	P	47.1	175.0
Elizabethtown Water Co., Cons. (Clark Township) (Dunellen) (Elizabeth, part) (Hillside Twp.) (Linden) (Union Township)	Hammock Station, 56 driven wells, 125' deep; Springfield Station, 54 driven wells, 135' deep; Piscataway Station, 13 driven wells, 125' deep; Watchung Station, 5 driven wells, 125'-210' deep. Junction of Rari- tan River and Millstone River at Bridgewater. Elizabeth River (in reserve)	Chlorination for all supplies	1,474 5,148 114,589 17,601 21,206 16,472	800 5,094 110,589 14,000 19,506 8,572	7,902	P	130.0	123.9
Elmer Water Company (Elmer)	1 driven well, 73' deep		1,219	1,219	121	P	24.7	20.0
Essex Fells (Municipality) (Caldwell) (North Caldwell) (West Caldwell) (Verona) (Roseland)	10 driven wells, 36'-295' deep	Chlorination	1,115 5,144 1,492 2,911 7,161 1,058 1,831	1,115 5,094 1,492 2,911 7,161 1,058 690	1,174	P	68.6	74.0
Evans, Charles N. (Lincoln Park, Hill Section)	1 driven well, 53' deep		1,831	690	1	P	65.0	51.0
Fairbanks-Morse Co. (Bridgeton)	2 driven wells, 74'-95' deep; sells to City of Bridgeton	Aeration	15,699	....	....	P	15.5	2.0
Fairlawn (Municipality)	5 driven wells, 110'-325' deep	Chlorination	5,990	5,500	377	P	115.4	37.0
Farmingdale (Municipality) (Howell Twp., part)	1 driven well, 480' deep		629 3,146	629 800	18	P	91.5	104.0
Flemington Water Co. (Flemington) (Raritan Twp., part)	2 driven wells, 405' deep; 4 springs; South Branch of Raritan River	Rapid sand filtration (gravity) and chlorination on springs and surface supply	2,729	2,729	344	P	78.6	67.0
Florence Twp. (Municipality)	2 driven wells, 118'-124' deep	Chlorination	7,824	4,000	177	P	17.4	2.7
Florham Park (Municipality) (E. Hanover Twp., part)	1 driven well		1,269	1,269	85	P	100.0	101.0
Fortesque Water Co. (Fortesque Sec- tion of Downe Twp.)	1 driven well, 306' deep		1,574	140*	....	P	74.3	90.0
Franklin Water Co. (Franklin)	Walkkill River	Rapid sand filtration (gravity) and chlorination	4,176	4,176	236	P	74.5	43.1
Freehold (Municipality)	16 driven wells, 60'-500' deep		6,894	6,894	403	P	137.6	98.0
Frenchtown Water Co. (Frenchtown)	1 driven well, 286' deep	Chlorination	1,189	1,189	74	P	51.9	55.2
Garfield (Municipality) (East Paterson) (Saddle River Twp.)	14 driven wells, 350'-400' deep (10 wells in reserve, 200'-500' deep)	Chlorination	29,739 4,779 2,424	29,739 4,779 2,424	1,957	P	88.0	65.0
Glassboro (Municipality)	2 driven wells, 250'-654' deep		4,799	4,799	163	P	74.3	63.5
Glen Gardner Water Co. (Glen Gard- ner)	Springs		554	554	....	G	20.0	15.0
Gloucester (Municipality)	21 driven wells, 91'-180' deep	Aeration, sedimentation, rapid sand filtration (gravity) and chlorination	13,796	13,796	1,195	..	68.6	72.0

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1980 Permanent	Population Supplied Estimated	1982 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Gravity Water Supply Co. (Far Hills) (Bedminster)	Buys water from Boro of Gladstone Peapack		500	200	....	..	....	....
Gropp, Andrew (White Horse section of Hamilton Twp.)	1 driven well, 53' deep		1,374	150				
Greenwich Twp. (Municipality-Gibbs-town Section)	1 driven well, 100' deep	Chlorination	27,121	60	....	P	34.5	4.0
Grenloch Realty Co. (Grenloch Section of Gloucester Twp.)	2 driven wells, 100'-160' deep	Chlorination	2,361	600	46	P	81.4	4.0
Hackensack Water Co. (New Milford) (Alpine) (Bergenfield) (Bogota) (Carlstadt) (Cliffside Park) (Closter) (Cresskill) (Demarest) (Dumont) (East Rutherford) (Edgewater) (Emerson) (Englewood) (Englewood Cliffs) (Fairview) (Fort Lee) (Guttenberg) (Hackensack) (Harrington Park) (Hasbrouck Heights) (Haworth) (Hillsdale) (Leonia)	Hackensack River	Rapid sand filtration (gravity) and chlorination	5,820	250	30	P	63.6	64.0
			2,556	2,556	33,005	P	57.9	37.5
			521	521				
			8,816	8,816				
			7,341	2,900				
			5,425	5,425				
			15,267	15,267				
			2,502	2,502				
			1,924	1,924				
			1,013	1,013				
			5,861	5,861				
			7,080	7,080				
			4,089	4,089				
			1,394	1,394				
			17,805	17,805				
			809	809				
			9,067	9,067				
			8,759	8,759				
			6,535	6,535				
			24,568	24,568				
			1,251	1,251				
			5,658	5,658				
			1,042	1,042				
			2,959	2,959				
			5,350	5,350				

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gal. Per Day	Gravity or Pumped	Hardness	Alkalinity
High Bridge (Municipality) (Taylor Wharton Iron & Steel Co.) (Central R. R. of N. J.)	Springs and Willoughby Brook; 2 driven wells, 63'-100' deep; 1 dug well, 27' deep; 1 seepage well	Chlorination and ammoniation, except driven wells	1,860	1,860	116	G	70.0	42.7
Highlands (Municipality)	3 driven wells, 265'-650' deep	Aeration and slow sand filtration for iron removal	1,877	1,877*	252	P	73.4	62.3
Hightstown (Municipality)	5 driven wells, 200' deep	Rapid sand filtration (pressure) and lime for CO ₂ and iron removal	3,012	3,012	270	P	65.5	69.0
Hoffman, W. A. (Budd Lake Section of Mt. Olive Twp.)	3 driven wells, 18' deep		1,235	50*	....	..	....	....
Hopewell (Municipality)	2 driven wells, 234'-500' deep		1,467	1,467	65	P	116.5	88.0
Hundermark Hotel Corp. (Town of Fortesque)	1 driven well, 285' deep		1,574	10*	....	P	81.4	89.0
Hulse, Estate of Aaron S. (Budd Lake Section of Mt. Olive Twp.)	1 driven well, 224' deep		1,235	50*	....	..	27.3	19.0
Ideal Beach Water Co. (East Keansburg)	2 driven wells, 160'-165' deep	Aeration and rapid sand filtration (gravity) for iron removal	2,190	300*	39	P	32.0	21.6
Island Heights (Municipality)	2 driven wells, 365' deep		453	453*	120	P	15.6	55.0
Jamesburg Water Company (Jamesburg)	4 driven wells, 75'-128' deep		2,048	2,048	39	P	16.5	5.5
Jersey City (Municipality) (North Caldwell, part) (Clifton, part) (Hoboken) (Lyndhurst Twp.) (North Arlington Twp.) (Ellis Island, New York Harbor) (Fort Wood, Liberty Island, New York Harbor)	Rockaway River	Chlorine and hypochlorite disinfection	316,715	316,715	54,219	G	32.5	26.0
(Bayonne, In emergency)			88,979	....	....	..	....	....
Junction Water Company (Hampton)	Rocky River; 12 springs; 1 driven well, 327' deep	Chlorination	861	861	113	G&P	30.0	17.0
Keansburg (Municipality)	2 driven wells, 290' deep	Aeration, lime and rapid sand filtration (pressure) for iron removal	2,190	1,890*	559	P	36.4	27.5

Keyport (Municipality)	7 driven wells, 240'-276' deep	Aeration and slow sand filtration for iron removal	4,940	4,940*	534	P	32.9	13.0
Kingston Water Co. (Franklin Twp., Kingston Section)	1 driven well, 83' deep	Chlorination	5,675	150	17	P	46.4	42.0
Lakehurst (Municipality)	1 dug well; 1 driven well		947	947*	33	P	20.3	35.0
Lakeside Water Co. (Kirkwood Section of Voorhees Twp.)	Buys water from Laurel Springs Water Company		1,405	400				
Lakewood Water Co. (Lakewood) (Howell Twp., part)	3 driven wells, 650' deep; 3 shallow wells, 20' deep (emergency supply, Metedeconk River)	Chlorination	7,869	3,020*	612	P	11.8	39.3
Lambertville Water Co. (Lambertville)	Springs; streams tributary to Delaware River	Slow sand filtration, chlorination and ammoniation	4,660	4,660	300	G	43.1	33.3
Lamoreaux, R. I. (Glendora Section of Gloucester Twp.)	2 driven wells, 80' deep		5,820	60	....	P	47.1	10.0
Laurel Springs Water Co. (Gibbsboro) (Hi Nella) (Laurel Springs) (Lawnside) (Lindenwold) (Magnolia) (Somerdale) (Stratford)	6 driven wells, 96'-130' deep	Chlorination	622	600				
			160	100				
			1,343	1,343				
			1,379	1,100				
			2,523	2,200				
			1,522	1,522	419	P	96.1	75.5
			1,151	1,151				
			958	958				
(Sells to Lakeside Water Co. for distribution at Kirkwood)								
Laurence Harbor Heights Co. (Madison Twp., Laurence Harbor and Morgan Beach Sections) (Supplies water to Cliffwood Beach Water Co.)	Buys water from Boro of Sayreville		2,566	200*	59	P	30.0	9.3
Lavallette (Municipality)	2 driven wells, 1130'-1522' deep		287	287*	67	P	37.1	172.0
Lawrenceville Water Co. (Lawrence Twp., Lawrenceville Section)	2 driven wells, 110'-230' deep	Chlorination	6,293	1,500	32	P	75.7	58.0
Lehigh Water Co. (Location of plant, Easton, Pa.) (Phillipsburg, N. J.)	Delaware River, infiltration gallery	Chlorination	19,255	25	36	P	62.1	39.5
Lodi (Municipality)	8 driven wells, 304'-332' deep		11,549	11,000	587	P	124.9	102.0
Long Beach Water Co. (Long Beach Twp., between Boro of Beach Haven and Boro of Ship Bottom-Beach Arlington)	1 driven well, 640' deep	Rapid sand filtration (pressure) for iron removal at Beach Haven Terrace	355	355*	102	P	15.0	16.0
Longport (Municipality)	Driven wells, 850'-855' deep		228	228*	119	P	31.9	58.8
Long Valley Water Co. (Washington Twp., Long Valley Section)	Spring fields and underdrains	Chlorination	1,615	550	14	G	20.4	15.3
Lopatcong Water Co. (Phillipsburg, part) (Harmony Twp.) (Lopatcong Twp.)	Merrill Brook	Chlorination	19,255	755	603	G	35.2	13.5
			1,311	100				
			1,269	150				

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1980 Permanent	Population Supplied Estimated	1982 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Lumberton Light, Water and Sewerage Co. (Lumberton Twp.)	1 driven well, 400' deep		905	600	21	P	40.6	42.0
Madison (Municipality)	11 driven wells, 88'-160' deep		7,481	7,481	628	P	130.1	103.5
Mahwah Water Co. (Hohokus Twp., Mahwah Section)	3 driven wells, 300'-600' deep		3,536	500	80	P	80.0	82.0
Manasquan (Municipality) (Brielle) (Wall Twp., part)	6 driven wells, 48'-150' deep		2,330 684 3,540	2,320* 684* 40	337	P	30.0	3.3
Mantua Water Co. (Mantua Twp.)	2 driven wells, 210' deep		2,677	1,000	19	P	30.6	150.3
Manville (Municipality)	7 driven wells, 110'-125' deep	Chlorination	5,441	5,441	55	P	91.7	44.9
Margate City (Municipality)	4 driven wells, 812'-815' deep		2,913	2,913*	609	P	73.0	54.5
Marlton Water Co. (Marlton)	2 driven wells, 216' deep		1,654	1,100	....	P	109.9	119.0
Matawan (Municipality)	5 driven wells, 200'-325' deep	Aeration and slow sand filtration for iron removal	2,264	2,264*	175	P	10.5	6.6
Mays Landing (Municipality, Hamilton Twp., Atlantic County)	3 driven wells, 250' deep		3,193	1,000	70	P	35.8	18.5
Mays Landing Water Power Co. (Mays Landing Section of Hamilton Twp., Atlantic County)	2 driven wells, 178' deep (Emergency supply, Lake Lenape)	Chlorination for emergency supply	3,193	500	....	P	63.6	43.5
McGalliard, Edward T. (White Horse Section of Hamilton Twp.)	1 driven well, 170' deep		27,121	200	....	P	23.7	6.0
McGalliard, W. V. (White Horse Section of Hamilton Twp.)	2 driven wells, 175'-225' deep		27,121	200	....	P	13.4	5.0
Medford Water Co. (Medford Twp.)	1 driven well, 538' deep (emergency supply, Rancocas Creek)	Chlorination for emergency supply	2,021	1,200	54	P	122.9	119.0
Mendham (Municipality) (Mendham Twp., part)	4 springs, Brook tributary to North Branch of Raritan River	Slow sand filtration of brook water and chlorination of spring and brook supply	1,278 1,003	1,278 400	85	G	18.2	22.5
Merchantville-Pennsauken Water Commission (Merchantville) (Pennsauken Twp., part) (Delaware Twp., part) (Camden, part)	14 driven wells, 75'-227' deep	Aeration and rapid sand filtration (pressure) for iron removal	3,592 16,915 5,734 118,700	3,592 11,415 3,500 1,700	986	P	23.3	8.6

Middlesex Water Co. (Woodbridge Twp.) (Carteret) (Clark Twp.) (Metuchen) (Raritan Twp.) (South Plainfield) (Sells water to Plainfield Union Water Co.) (Buys water from city of Perth Amboy)	17 driven wells, 300' deep at Park Ave., Plainfield; Robinson's branch of Rahway River at Rahway; 11 driven wells, 300' deep, at South Plainfield	Coagulation, rapid sand filtration (pressure) and chlorination for surface supply. Chlorination at South Plainfield and Park Avenue	25,266 13,339 1,474 5,748 10,025 5,047	25,266 13,339 400 5,748 3,000 825	5,656	P	136.0	48.2
Millington Water Co. (Passaic Twp., Millington Section)	2 shallow wells, 16'-20' deep		2,149	300	....	P	140.0	146.0
Millville (Municipality)	8 driven wells, 112' deep		14,705	7,500	1,362	P	19.2	5.5
Millville Water Co. (Millville)	14 driven wells, 135'-400' deep; Union Lake and Maurice River	Rapid sand filtration (gravity) and chlorination for surface supply	14,705	7,205	1,669	P	11.4	4.4
Mine Spring Water Co. (Milford)	1 driven well, 96' deep; 1 shallow well, 24' deep	Chlorination	933	933	39	P	114.8	107.0
Monmouth Consolidated Water Co. (Ashbury Park, part) (Neptune Twp.) (Bradley Beach) (Deal) (Eatontown) (Fair Haven) (Interlaken) (Little Silver) (Long Branch) (Monmouth Beach) (Middletown Twp.) (Neptune City) (Ocean Grove) (Ocean Twp.) (Oceanport) (Red Bank, part) (Rumson) (Sea Bright) (Shrewsbury Twp.) (West Long Branch)	10 driven wells, 590'-1125' deep; Jumping Brook at Neptune Twp., auxiliary supply at Whitesville. Whale Pond Brook at West Long Branch	Rapid sand filtration (pressure), lime sedimentation and chlorination for CO ₂ iron removal. Rapid sand filtration (pressure) and chlorination	14,981 10,625 3,306 800 1,938 2,280 545 1,109 18,399 457 9,209 2,258 10,625 2,892 1,872	2,900* 3,050* 3,306* 800* 1,988* 2,000* 500* 1,109* 18,399* 457* 9,209* 2,258* 3,050* 2,892* 1,872*				
	Hop and Yellow Brooks at Newman Springs	Coagulation, rapid sand filtration (gravity) and chlorination	1,109 18,399 457 9,209 2,258 10,625 2,892 1,872	1,109* 18,399* 457* 9,209* 2,258* 3,050* 2,892* 1,872*	6,898	P	70.7	29.8
	6 driven wells, 380'-585' deep at Deal, held as supplementary supply.		2,073 2,073* 899 1,052 1,686 4,064	600* 2,073* 899* 1,052* 1,686* 1,500				
	6 driven wells, 191'-335' deep at Fair Haven, held as supplementary supply; 29 driven wells, 400'-1100' deep, and auxiliary supply at Ocean Grove, Neptune Twp.	Aeration and slow sand filtration for iron removal	11,622 2,073 899 1,052 1,686 4,064	600* 2,073* 899* 1,052* 1,686* 1,500				
Monroe Township (Municipality, W11-lamstown Section)	2 driven wells, 102'-114' deep		7,247	7,247	430	P	27.3	5.5
Moorestown Twp. (Municipality)	5 driven wells, 157'-517' deep	Aeration, sedimentation and rapid sand filtration (gravity) for iron removal	7,247	7,247	430	P	77.6	55.7
Morris and Sussex Water Service Co. (Lake Rogerer Section of Mount Arlington) (Lake Hopatcong, Hopatcong Park Section, Byram Cove)	Driven wells, 91'-100' deep		306 2,000	100* 30* 30*	1	P	55.0	53.3

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1980 Permanent	Population Supplied Estimated	1982 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Morristown (Municipality) (Hanover Twp., part) (Harding Twp., part) (Morris Plains) (Mendham Twp., part)	1 driven well, 50' deep; 1 shallow well at Sand Spring pumping station; 8 driven wells at Normandy Heights; springs at James Woods; East and West Primrose Brook; Harmony Brook	Chlorination for surface supply	15,197 2,516 1,206 1,713 5,565	15,197 1,500 800 1,713 4,000	1,718	P G	75.4	81.4
Mountain Lakes (Municipality) (Parsippany-Troy Hills Twp., part)	5 driven wells, 50'-469' deep	Chlorination	2,182 6,631	2,182* 1,000	147	P	75.0	45.0
Mount Holly Water Co. (Mount Holly Twp.) (Hainesport Twp., part) (Lumberton Twp., part)	1 driven well, 372' deep (emergency supply, Rancocas Creek)	Rapid sand filtration (gravity) and chlorination for emergency supply; (Filtering and aerating well water for iron removal; lime treatment for alkalinity)	6,573 984 905	6,000 400 250	319	P	61.9	72.4
National Park (Municipality) (West Deptford Twp., Red Bank Section)	2 driven wells, 100'-120' deep		1,828 3,956	1,828 25	192	P	43.8	9.0
Neptunus Water Co. (Cape May Court House Section of Middle Twp.)	1 driven well, 278' deep; 2 shallow wells, 24'-27' deep		3,430	2,360	44	P	44.0	41.7
Netcong (Municipality)	2 driven wells, 29'-85' deep; springs, underdrains and brook		2,097	2,097	92	P	80.7	71.0
Newark (Municipality) (Belleville) (Bloomfield) (Elizabeth, part) (Hillside) (sold to and distributed by Elizabethtown Water Co. Cons.) (Nutley) (Packanack Lake) (Wayne Twp.)	Pequanock River (Newark) and Wanauque Reservoir (North Jersey District Water Supply Commission)	Ammoniation and chlorination	452,000 28,000 38,100 115,000	452,000 28,000 38,100 115,000	42,001 1,563 3,357 2,398 96	G	34.8	13.0
New Brunswick (Municipality) (Franklin Twp., part) (Highland Park) (Milltown) (North Brunswick Twp.)	Lawrence Brook	Aeration, rapid sand filtration (gravity), chlorination and ammoniation	21,000 500 2,000 34,555 5,075 8,691 2,984 3,622	21,000 500 2,000 34,555 800 8,691 2,984 3,000	987.4 5,419	P	37.7	10.5

New Brunswick Water Co. (Raritan Twp.)	1 driven well, 200' deep		10,025	600	10	P	181.7	15.0
New Egypt Light, Heat, Power and Water Co. (Plumstead Twp., New Egypt Section)	1 driven well, 238' deep	Chlorination	1,215	850	28	P	76.2	76.7
New Jersey Conference Camp Meeting Assoc. (Pitman, part) (Mantua Twp., Pitman Grove Section)	2 driven wells, 183' deep		5,411	400	120	P	87.8	79.0
New Jersey Water Co. (Haddon Heights) (Audubon) (Bellmawr) (Barrington) (Camden, part) (Delaware Twp., part) (Haddonfield, part) (Haddon Twp., part) (Mt. Ephraim) (Oaklyn) (Pensauken Twp., part) (Runnemede) (Voorhees Twp., Ashland Terrace Section)	1 driven well, 408' deep at Ashland Terrace; 6 driven wells, 190'-295' deep, at Haddon Heights and vicinity; 1 driven well, 284' deep, at Barrington; 27 driven wells, 40'-178' deep at Camden	Aeration and filtration for iron removal on Barrington supply	5,394 8,904 1,123 2,252 118,700 5,724 8,857 9,198 2,319 3,843 16,915 2,436 1,405	5,394 8,904 800 2,252 12,000 2,200 850 3,100 2,000 3,843 4,700 2,436 200	1,338	P	77.2	84.4
New Orange Park Water, Heat, Light and Power Co. (Kenilworth, New Orange Park Section)	1 driven well, 275' deep		2,243	1,243	15	P	80.0	70.0
Newton (Municipality)	Morris Lake	Chlorination	5,401	5,401	631	G	38.4	45.0
New York and New Jersey Suburban Water Co. (East Newark) (Harrison)	Purchases water from Passaic Valley Water Commission		2,686 15,601 1,235	2,686 15,601 50	....	P	36.4	20.0
Nicholas, H. R. H. (Mt. Olive Twp., Flanders Section)	Spring		1,235	50	....	G	15.6	12.0
North Jersey District Water Supply Commission (Bayonne) (Elizabeth, part) (Glen Ridge) (Kearny) (Montclair) (Newark, part) (Passaic Valley Water Commission)	Wanaque River (Reservoir at Wanaque, N. J.)	Chlorination	88,979 115,000 7,365 40,716 42,017 452,000	88,979 7,365 40,716 42,017	9,755 2,398 490 4,617 3,118 9,475 17,358	G	27.3	12.4
Oakland (Municipality)	2 driven wells, 85'-135' deep		735	700	19	P	81.0	71.0
Ober, Charles C. (Newfield)	1 driven well, 26' deep		880	150	....	P	18.2	1.0
Ocean City Water Service Co. (Ocean City)	7 driven wells, 809'-840' deep	Chlorination	5,525	5,525*	770	P	45.1	34.5

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Ocean County Water Co. (Bay Head) (Brick Twp., part) (Mantoloking)	4 driven wells, 700'-900' deep; 5 driven wells, 900'-1000' deep. Wells at Mantoloking only used during peak loads	Chlorination	429 1,172 37	429* 50 37*	258	P	62.9	92.0
Ocean Gate Water Co. (Ocean Gate) Ogdensburg (Municipality)	1 driven well, 376' deep Spring-brook	Rapid sand filtration (pressure) and chlorination	100 1,138	100* 1,138	10 62	P G	48.6 26.4	63.0 12.0
Orange (Municipality) (West Orange, part)	West Branch of Rahway River; 3 driven wells, 42'-380' deep	Rapid sand filtration (pressure) and chlorination	35,399 24,327	35,399	2,622	P	100.6	59.5
Park Ridge (Municipality) (Montvale) (Woodcliffe Lake) (Rivervale, part)	1 driven well, 435' deep	Chlorination	2,229 1,243 871 871	2,229 400 300 75	184	P	71.5	83.6
Parsippany-Troy Hills Twp. (Municipality)	1 driven well, 136' deep		6,631	3,000	54	..	101.5	88.0
Parsippany Water Co. (Parsippany-Troy Hills Twp.)	1 driven well, 282' deep		6,631	2,500	2	P	51.4	90.0
Passaic Valley Water Commission (Clifton) (Clifton) (Supplied to Albion Place Section, Delawanna) (Allwood)	Passaic River at Little Falls Wanaque Reservoir (North Jersey District Water Supply Commission)	Rapid sand filtration (pressure and gravity) and chlorination	38,250 3,300	38,250 3,300	1,464 700	P	50.0	34.3
(East Newark) (Supplied through New York and New Jersey Suburban Water Co.) (Harrison)			16,414 4,300	16,414 4,300	2,316 344			
(Little Falls) (Supplied through New York and New Jersey Suburban Water Co.) (Passaic) (Paterson) (Prospect Park) (Totowa)			70,800 141,695 5,000 3,500 7,121	70,800 141,695 5,000 3,500 7,121	2,812 6,757 374 600			
Paulsboro (Municipality)	4 driven wells, 65'-95' deep		3,500 7,121	3,500 7,121	374 600	P	30.7	7.8

Peapack-Gladstone (Municipality) (Bedminster Twp., part) (Far Hills, sells to Gravity Water Supply Co.)	Emerson Pond	Chlorination	1,273 1,374 560	1,273 750 500	116	G	26.0	23.0
Pemberton (Municipality) (Pemberton Twp., part)	North Branch of Rancocas Creek	Chlorination	783 1,929	783 500	72	P	15.9	8.5
Pearlinton (Municipality)	3 driven wells, 156'-637' deep; 1 spring	Chlorination	1,335	1,335	62	P G	100.0	146.0
Pennsgrove Water Supply Company (Pedrickstown, Oldman Twp.) (Pennsgrove) (Upper Penn's Neck Twp., part)	10 driven wells, 53'-180' deep	Aeration, sedimentation and rapid sand filtration (gravity) for iron removal	1,431 5,895 3,879	800 5,895 50	324	P	24.7	35.0
Peoples Water Co. (Phillipsburg) (Lopatcong Twp., part) (Pohatcong Twp., part)	Infiltration gallery for springs	Chlorination	19,255 1,269 1,974	18,500 100 150	1,414	P	65.8	86.0
Perth Amboy (Municipality) (East Brunswick Twp.) (Sayreville, part) (Woodbridge Twp., part) (Sells water to Piscataway Twp.) (Sells water to Middlesex Water Co.) (Sells water to South Amboy in emergency)	113 driven wells, 80'-260' deep	Lime treatment, rapid sand filtration (pressure) for iron removal	43,516 2,711 8,658 25,266	43,516 700 4,000 20,000	4,665	P	50.0	17.0
Pine Cliff Lake Realty Co. (West Milford Twp.)	Notch Brook	Chlorination	8,476 1,901	.... 400	20	G	53.4	21.4
Pine Crest Improvement Association (Outlook Park Section of Budd Lake)	1 spring	Chlorination	1,235	100*	....	P	35.1	29.0
Pitman (Municipality)	9 driven wells, 150'-514' deep		5,411	5,000	227	P	46.8	212.0
Plainfield-Union Water Co. (Plainfield) (Clark Twp., part) (Cranford Twp.) (Elizabeth, part) (Panwood) (Garwood) (Keuffworth) (Linden, part) (Mountainside, part) (North Plainfield) (Piscataway Twp., part) (Roselle) (Roselle Park) (Scotch Plains Twp.) (South Plainfield, part) (Watchung) (Westfield)	40 driven wells, 70'-500' deep at Netherwood and South Plainfield	Chlorination	34,422 1,474 11,126 114,589 1,681 3,344 2,243 21,206 965 9,760 5,865 13,021 8,969 4,186 5,047 906 15,801	30,400 250 11,126 2,000 1,681 3,344 1,000 1,700 965 9,760 2,000 11,521 8,969 4,000 3,747 906 15,801	4,985	P	149.9	88.6

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930 Permanent	Population Supplied Estimated	1932 Consumption in Thousand Gals. Per Day	Gravity or Pumped	Hardness	Alkalinity
Plausha Park Land Co. (Montville Twp., Towaco Section)	1 driven well, 200' deep		2,467	200*	1	P	103.0	118.0
Point Pleasant Beach (Municipality) (Point Pleasant)	7 driven wells, 150' deep		1,844	1,844*	554	P	36.4	30.0
Pottersville Water Co. (Bedminster Twp., Pottersville Section, part) (Tewksbury Twp., part)	Tributary of Black River	Chlorination	2,058	2,058*				
Pompton Lakes (Municipality) (Wanaque) (Riverdale)	Buys water from Boro of Butler and sells water to Boro of Wanaque and Riverdale		1,374	200				
Princeton Water Co. (Princeton) (Princeton Twp.)	7 driven wells, 300'-615' deep	Chlorination (part)	1,119	50	171	G	...	34.4
Property Owners Cooperative Assoc. of Middlesex County, Inc. (Helmetta, Jamesburg Park Section)	1 driven well, 224' deep		3,104	3,104				
Prospect Point Water Co. (Prospect Point Section of Lake Hopatcong in Jefferson Twp.)	1 driven well, 369' deep		3,119	3,000				
Rahway (Municipality)	Rahway River	Rapid sand filtration (gravity) and chlorination	1,652	500	995	P	64.2	30.0
Ramsey (Municipality) Read, A. J. (Long Valley section of Washington Twp.)	3 driven wells, 203'-419' deep		2,738	1,200	...	P	29.9	7.7
Red Bank (Municipality) (Fair Haven, part)	10 driven wells, 75'-700' deep	Aeration, sedimentation, rapid sand filtration (pressure) for iron removal, ammoniation and chlorination for algae	801	200				
Reid, Arthur (Mt. Olive Twp., Outlook Park, Rudd Lake Section)	Springs		1,254	150*	2	P	38.5	37.0
Ridgewood (Municipality) (Glenn Rock) (Hohokus) (Midland Park)	15 driven wells, 200'-261' deep	Chlorination	16,011	16,011	3,056	P	101.7	60.5
			3,258	3,258	177	P	77.1	65.0
			1,615	100	...	G	24.3	17.0
			11,622	11,022*	752	P	115.2	106.3
			2,260	260				
			1,235	50*	...	G	37.0	33.5
			12,188	12,188	1,353	P	75.5	50.5
			4,369	4,369				
			926	926				
			3,638	3,638				

Remington, John C., Jr. (Fortescue Section of Downe Twp.)	1 driven well, 300' deep		1,574	10	....	P	74.3	90.0
Riddle, Frank (Hampton)	1 driven well, 64.5' deep		861	75	....	..	72.9	31.0
Riegel Paper Corporation (Hughesville Mill) (Holland Twp.)	Brook	Chlorination	994	....	....	P	51.4	40.0
(Milford Mill)	7 dug wells, 40' deep	Chlorination	....	....	....	P	85.7	74.0
(Milford)								
(Warren Glenn, Pohatcong Twp.)	1 dug well, 22' deep	Chlorination	1,974	....	....	P	146.8	90.8
Ringwood Company, The (The Awosting Section of West Milford Twp.)	2 driven wells, 136-365' deep		1,901	250	....	P	64.5	83.6
(Lake Erskine Manor Section of Ringwood Borough)	3 driven wells, 164-375-505' deep		1,038	200	....	P	54.8	58.3
Riverton-Palmyra Water Co. (Riverton)	4 driven wells, 20'-260' deep		2,483	2,483	691	P	67.0	13.8
(Cinnaminson Twp., part)			2,277	1,000				
(Palmyra)			4,968	4,968				
Rockaway (Municipality)	1 driven well, 50' deep (2 driven wells, 245'-300' deep, held in reserve)		3,132	3,132	153	P	64.2	69.8
Roebing's Sons Co., John A. (Florence Twp., Roebing Section)	1 driven well, 310' deep (emergency supply, Delaware River)	Rapid sand filtration (gravity) and chlorination on emergency supply	7,824	3,500	274	P	64.0	46.4
Salem (Municipality)	34 driven wells, 135'-250' deep; tributary to Alloway Creek	Rapid sand filtration (gravity) and chlorination	8,074	8,074	1,012	P	56.7	80.7
Sayreville (Municipality)	Buys water from City of South Amboy. Sells water to Laurence Harbor Heights Co., Laurence Harbor and Cliffwood Beach Water Co.		1,166	500				
			8,658					
Schulz, A. Z. (Bellmawr, part)	1 driven well, 226' deep		1,123	500	....	P	73.6	81.5
Sea Girt (Municipality)	3 driven wells, 760' deep; 1 dug well, 30' deep		386	386*	132	P	33.5	36.2
Sea Isle City (Municipality)	2 driven wells, 860'-870' deep		850	850*	241	P	36.4	81.0
Seaside Heights (Municipality)	1 driven well, 460' deep		399	399*	80	P	8.7	25.8
(Sunset Island, west of Seaside Heights)			20	20*				
Seaside Park (Municipality)	3 driven wells, 139'-525' deep	Aeration and rapid sand filtration (gravity) for CO ₂ and iron removal	571	571*	50	P	9.9	79.7
Sewell Water Co. (Sewell)	1 driven well, 80' deep		2,677	650	12	P	79.0	62.0
Ship Bottom-Beach Arlington (Municipality)	2 driven wells, 300'-590' deep		277	277*	31	P	23.0	19.7
Short Hills Water Co. (Pumps directly to Commonwealth Water Company's system)	2 driven wells, 80' deep	Chlorination						
Smith Machine Co., H. B. (Smithville Section of Easthampton Twp.)	2 driven wells, 108' deep	Aeration and filtration for iron removal	503	400	....	P	50.0	52.6

* Seasonal increase from 2 to 20 times in population.

TABLE No. 5.—DESCRIPTIVE DATA OF PUBLIC WATER SUPPLIES IN NEW JERSEY (Continued)

OWNER AND MUNICIPALITIES SUPPLIED	SOURCE OF SUPPLY	TREATMENT	Population 1930	Population Supplied	1932 Consumption in Thousand Gals. Per Day	Gravity of Pumped	Hardness	Alkalinity
			Permanent	Estimated				
Somerville Water Co. (Raritan) (Somerville)	Raritan River	Rapid sand filtration (pressure) and chlorination	4,751	4,751	1,870	P	53.6	23.2
South Amboy (Municipality) (Sayreville, Morgan Heights Section) (Buys water from Perth Amboy in emergency)	1 driven well, 55' deep; springs; (3 driven wells, 234'-248' deep, in reserve)	Chlorination	8,255 8,476	8,255 3,000	822	P	36.1	8.7
South Jersey Water Supply Company (Mullica Hill)	2 driven wells, 260' deep		1,827	1,000	68	P	46.8	270.7
South Orange (Municipality)	11 driven wells, 274'-382' deep		13,630	13,630	1,133	P	73.8	105.6
South River (Municipality) (East Brunswick Twp., part)	2 driven wells, 150'-193' deep; 253' of collecting drains; 1 collecting well, 35' deep		10,759	10,759	297	P	47.1	19.0
Spring Lake (Municipality) (Spring Lake Heights)	13 driven wells, 700' deep		2,711 1,745 1,221	100 1,745* 1,221	-380	P	32.2	35.0
Spring Water Company (Chester)	Spring		1,453	50	25	P	37.7	62.0
Stanhope (Municipality)	2 driven wells, 54'-90' deep		1,089	1,089	82	P	41.8	31.5
Stockton (Municipality)	2 driven wells, 160' deep		556	556	25	P	28.5	21.6
Stone Harbor (Municipality)	2 driven wells, 800'-859' deep		363	363*	99	P	26.0	99.0
Stonwald Park Assoc. (Mt. Olive Twp., Budd Lake Section)	7 shallow wells, 22' deep		1,285	100*	....	P	55.8	32.0
Surf City Water Co. (Surf City)	1 driven well, 564' deep		76	76*	10	P	34.3	18.0
Sussex (Municipality)	Lake Rutherford	Chlorination	1,415	1,415	362	G	24.1	3.3
Swackhamer, B. B. (Long Valley Section of Washington Twp.)	Springs on Schooley's Mountain		1,615	250	....	G	19.0	13.0
Swedesboro (Municipality)	5 driven wells, 138'-200' deep	Chlorination	2,123	2,123	93	P	50.3	82.6
Thieme, Margaret (Princeton Twp.)	1 driven well, 170' deep	Chlorination	2,738	40	....	P	115.0	103.0
Toms River Water Co. (Dover Twp., Toms River Section) (South Toms River) (Berkeley Twp., part)	8 driven wells, 47'-62' deep		3,970 405 811	2,400* 405 150	326	P	10.5	2.6
Trenton (Municipality) (Ewing Twp., part) (Hamilton Twp., part) (Lawrence Twp., part)	Delaware River	Rapid sand filtration (gravity) and chlorination	123,356 6,942 27,121 4,202	123,356 3,500 8,000 1,000	15,516	P	41.5	19.2

Tuckerton Railroad Co. (Whitings Section of Manchester Twp.)	1 driven well, 148' deep		1,009	25	....	P	14.3	12.5
Tuckerton Water Co. (Tuckerton)	1 driven well, 190' deep		1,429	1,429*	99	P	29.9	25.0
Urion Beach (Municipality) (Raritan Twp., part)	2 driven wells, 300' deep	Aeration and sand filtration (pressure) for iron removal	1,893	1,893*	69	P	39.0	17.8
Vanderbeck, Charles R. (Fairlawn, part)	1 driven well, 150' deep		1,568	500	....	P	84.7	50.5
Ventnor (Municipality)	6 driven wells, 800'-825' deep		6,674	6,674*	1,172	P	30.0	53.6
Vincentown Water Co. (Vincentown Section of Mt. Holly Twp.)	1 driven well, 150' deep (emergency supply, Branch of Rancoocas Creek)	Chlorination of emergency supply	6,573	700	17	P	66.1	72.5
Vineland (Municipality) (Landis Twp., part)	13 driven wells, 120'-136' deep		7,556	7,556	966	P	16.9	3.0
Waldwick (Municipality) (Hohokus, Northern Section) (Saddle River, part)	3 driven wells, 275'-300' deep		14,047	3,000				
Wallington (Municipality)	5 driven wells, 275'-500' deep	Chlorination	1,728	1,728	88	P	100.6	81.5
Wanaque (Municipality)	Purchases water from Pompton Lakes		3,536	150				
Washington Water Co. (Washington)	Roaring Rock Brook	Chlorination	657	50				
Weinberg, Regina H. (Pennsville) (Lower Penns Neck Twp.)	1 driven well, 35' deep		9,063	9,063	332	P	152.1	88.8
Wenonah (Municipality)	8 driven wells, 210'-250' deep		4,410	4,410	355	G	24.7	12.8
West Jersey Water Service, Inc. (Budd Lake Section of Mt. Olive Twp.)	1 driven well, 100' deep	Chlorination	2,633	80	8	P	70.0	8.0
Westville (Municipality) (Deptford Twp., part) (West Deptford Twp., part)	5 driven wells, 112'-117' deep		1,245	1,245	93	P	30.8	128.6
Wharton (Municipality)	Rockaway River above Stevens Brook	Rapid sand filtration (pressure) and chlorination	1,235	50*	6	P	39.0	32.0
Whippany Water Co. (Hanover Twp.)	Purchases water from Morristown (formerly supply of Normandy Water Company)		3,462	3,462	148	P	59.3	75.0
White Horse Water Company (White Horse Section of Hamilton Twp.)	Purchases water from City of Bordentown		4,507	2,000				
Wildwood (Municipality) (North Wildwood) (West Wildwood) (Wildwood Crest) (Middle Twp., part)	32 driven wells, 50'-1000' deep (emergency plants at Wildwood and North Wildwood)	Chlorination, part	3,956	600	94	P	34.1	20.4
Winters, Albert (Hohokus Twp., Mahwah Section)	Spring		3,683	3,683				
Woodbine Light, Power and Water Co. (Woodbine)	5 driven wells, 150'-160' deep		2,516	1,000	....	P	20.8	162.0
Woodbury (Municipality) (Woodbury Heights) (Deptford Twp., part)	10 driven wells, 287'-293' deep at Sewell, N. J.		27,121	250				
Woodstown (Municipality)	7 driven wells, 165'-711' deep		5,366	5,330*	1,626	P	52.9	56.5
			2,049	2,049*				
			178	178*				
			738	738*				
			3,430	40				
			3,536	100	....	G	94.3	71.0
			2,164	2,164	92	P	26.6	3.5
			8,172	8,172	639	P	28.4	144.0
			997	997				
			4,507	50				
			1,832	1,832	83	P	48.0	192.8

BUREAU OF ENGINEERING

* Seasonal increase from 2 to 20 times in population.

The following table No. 6 lists the municipal sewage treatment plants operating at the end of the fiscal year, June 30, 1933:

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Allenhurst	Borough	Monmouth	Allenhurst	573*	573*
Asbury Park	City	Monmouth	Asbury Park	14,981*	14,981*
Atlantic City	City	Atlantic	Chelsea Heights Section	66,198*	758*
Atlantic City (City Island Plant)	Atlantic City Sewerage Company	Atlantic	Morris Ave. to Georgia Ave.	66,198*	48,680*
Atlantic City (Raleigh Ave. Plant)	Atlantic City Sewerage Company	Atlantic	Albany Ave. to Jackson Ave.	66,198*	4,858*
Atlantic City (Texas Ave. Plant)	Atlantic City Sewerage Company	Atlantic	Georgia Ave. to Albany Ave.	66,198*	760*
Atlantic Highlands	Borough	Monmouth	Atlantic Highlands	2,000*	2,000*
Audubon	Borough	Camden	Audubon	8,904	8,904
Avalon	Borough	Cape May	Avalon	343*	343*
Avon	Borough	Monmouth	Avon	1,220*	1,220*

Barrington	Borough	Camden	Barrington	2,252	2,252
Bay Head	Borough	Ocean	Bay Head	429*	429*
Beach Haven	Borough	Ocean	Beach Haven	715*	715*
Belmar	Borough	Monmouth	Belmar South Belmar	3,481* 886*	3,491* 886*
Bergenfield	Boroughs of Bergenfield and Dumont	Bergen	Bergenfield Dumont	8,816 5,861	8,816 5,861
Beverly	City	Burlington	Beverly	2,864	2,864
Bogota	Borough	Bergen	Bogota	7,341	7,341
Boonton	Jersey City	Morris	Boonton Dover Rockaway (not connected) Wharton (not connected) Hibernia (not connected)	6,866 10,031 3,132 3,683 1,895	6,866 10,031
Bordentown	City	Burlington	Bordentown	4,405	4,405
Bradley Beach (Ocean Park Plant) (District No. 1)	Ave. Borough	Monmouth	Bradley Beach	3,306*	2,006*
Bradley Beach (Evergreen Plant) (District No. 2)	Ave. Borough	Monmouth	Bradley Beach	3,306*	1,000*

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Allenhurst	12-5-07	1908	1930	Sedimentation tanks, chlorinator and chlorine contact tank	**350,000 summer **42,000 winter	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Asbury Park	2-27-05	1905	....	Sedimentation tanks	**2,600,000 April, 1932	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Atlantic City	12-2-24	1925	....	Fine mechanical screens and chlorinator	4,000,000	Beach Thoroughfare	Pollution of shellfish area
Atlantic City (City Island Plant)	5-29-14 Amended 8-27-14	1921	....	Grit chamber and sedimentation tank	**9,743,000 March, 1932	Beach Thoroughfare	Pollution of shellfish area
Atlantic City (Raleigh Ave. Plant)	10-19-09	1911	1928	Fine mechanical screens and chlorinator	375,000	Inside Thoroughfare	Pollution of shellfish area
Atlantic City (Texas Ave. Plant)	4-20-20	1921	1928	Fine mechanical screens and chlorinator	2,500,000	Beach Thoroughfare	Pollution of shellfish area
Atlantic Highlands	7-5-27	1928	....	Sedimentation tanks, chlorinator and glass-covered sludge drying beds	600,000	Sandy Hook Bay	Pollution of shellfish area
Audubon	4-2-12	1914	1930	Modified Imhoff tanks, dosing tanks, sprinkling filters and chlorinator final sedimentation tanks (and chlorine contact combined), sludge digestion tank and glass-covered sludge drying beds	1,200,000	South Branch of Newton Creek	Pollutions of bathing or recreational waters and nuisances
Avalon	8-11-14	1916	....	Sedimentation tank, chlorinator and chlorine contact tank	.....	Townsend's Inlet	Pollutions of bathing or recreational waters and nuisances
Avon	6-1-09	1909	1928 and 1929	Sedimentation tank, chlorinator and chlorine contact tank	400,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances

Barrington	4-2-29	1930	....	Grit chamber, preliminary sedimentation tanks, aeration tanks, final sedimentation tanks (with mechanical sludge removal), rapid sand filters, chlorinator, chlorine contact tank, sludge digestion tanks and glass-covered sludge drying beds	600,000	Beaver Brook, tributary of Little Timber Creek	Pollutions of bathing or recreational waters and nuisances
Bay Head	5-2-16	1917	....	Imhoff tanks, sprinkling filters, final sedimentation tanks and sludge drying beds	.....	Barnegat Bay	Pollutions of shellfish area
Beach Haven	1-30-12	1913	1931	Sedimentation tanks, chlorinator and chlorine contact tank	700,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Belmar	1-13-09 Revised 4-19-10	1911	....	Sedimentation tanks, chlorinator and chlorine contact tank	800,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Bergenfield	6-3-24	1925	1929	Sedimentation tanks, sprinkling filters, chlorinator, chemical dry feed apparatus, final settling tank (and chlorine contact combined), intermittent sand filters, sludge digestion tanks and glass-covered sludge drying beds	2,500,000	Tributary to Hackensack River	Pollutions of bathing or recreational waters and nuisances
Beverly	8-10-09 Amended 8-20-12	1913	....	Sedimentation tanks and sludge drying bed	35,000	Delaware River	Pollutions of bathing or recreational waters and nuisances
Bogota	1-21-13	1914	1930	Imhoff tanks, chlorinator and glass-covered sludge drying beds	1,150,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Boonton	1-2-23	1928	....	Sedimentation tanks, contact beds, intermittent sand filters, chlorinator, chlorine contact tank, sludge digestion tanks and glass-covered sludge drying beds	2,000,000	Rockaway River	Pollution of potable waters
Bordentown	7-20-09	1911	....	Sedimentation tanks, primary and secondary contact tanks, final sedimentation tanks, intermittent sand filters (not in use) and sludge drying beds	350,000	Black Creek, tributary to Delaware River	Pollution of potable waters
Bradley Beach (Ocean Park Ave. Plant) (District No. 1)	2-9-09	1911	1930	Sedimentation tanks, chlorinator and chlorine contact tank	665,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Bradley Beach (Evergreen Ave. Plant) (District No. 2)	4-11-11	1911	....	Sedimentation tanks, chlorinator and chlorine contact tank	335,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Population Served
Bridgeton	City	Cumberland	Bridgeton	15,698	15,698
Brigantine City	City	Atlantic	Brigantine City	357*	357*
Brooklawn	Borough	Camden	Brooklawn	1,753	1,753
Burlington	City	Burlington	Burlington	10,844	10,844
Butler	Borough	Morris	Butler Bloomingdale	3,392 2,543	3,392 part
Caldwell	Borough	Essex	Caldwell North Caldwell West Caldwell	5,144 1,492 2,911	5,144 part part
Camden	City	Camden	Fairview section of Camden	118,700	(all of Fairview)
Camden	City	Camden	Northern section of Camden Pensauken Township	118,700 16,915	(all of northern part section)
Cape May Point	Borough	Cape May	Cape May Point	104*	part
Carlstadt	Borough	Bergen	Carlstadt	5,425	5,425

Chatham	Joint Municipalities of Chatham-Morris Madison		Chatham Madison	3,869 7,481	3,869 7,481
Chester Township	Township	Burlington	Maple Shade section of Chester Township	5,117	2,210
Cliffside Park	Borough	Bergen	Cliffside Park	15,267	part
Collingswood	Borough	Camden	Collingswood	12,723	12,723
Deal	Borough	Monmouth	Deal	800*	.....
Delaware Township	Township	Camden	Eriton Section of Delaware Township	5,734	.....
Delaware Township	Township	Camden	Colwick Section of Delaware Town- ship	5,734	.....
East Rutherford	Borough	Bergen	East Rutherford	7,080	.....
Egg Harbor	City	Atlantic	Egg Haror City	3,478	part
Englewood	Englewood Sewerage Company	Bergen	Englewood	17,805	17,805
Englewood Cliffs	Borough	Bergen	Englewood Cliffs	809	809
Essex Fells	Borough	Essex	Essex Fells	1,115	1,115

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Bridgeton	6-25-10	1911	1929	Imhoff tanks, sprinkling filter, final settling tank, chlorinator, chlorine contact tank and glass-covered sludge drying beds	1,500,000	Cohansey River	Pollution of shellfish area
Brigantine City	2-1-27	1927	....	Fine screens and chlorinator	600,000	Beach Thoroughfare near Absecon Inlet	Pollutions of bathing or recreational waters and nuisances
Brooklawn	2-4-19	1919	....	Tidal detention tank	.....	Big Timber Creek, tributary to Delaware River	Pollutions of bathing or recreational waters and nuisances
Burlington	3-18-01	1902	1932	Imhoff tanks, chlorinator, chlorine contact tank and glass-covered sludge drying beds	2,200,000	Drainage ditch, tributary to Delaware River	Pollution of potable waters
Butler	9-16-19	1924	....	Sedimentation tanks, intermittent sand filters, chlorinator, chlorine contact tank and sludge drying beds	247,500	Pequannock River	Pollution of potable waters
Caldwell	7-16-12	1915	1928	Sedimentation tanks, sprinkling filters, chlorinator, intermittent sand filters, final sedimentation tank (and chlorine contact combined) and sludge drying beds	1,000,000	Tributary to Passaic River	Pollution of potable waters
Camden	5-28-18 Amended 9-17-18	1918	....	Sedimentation tanks and sludge drying beds	227,000	Newton Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Camden	1-18-28	1929	....	Grit chamber, Imhoff tanks and glass-covered sludge drying beds	2,500,000	Delaware River	Pollutions of bathing or recreational waters and nuisances
Cape May Point	....	1890	....	Sedimentation tanks and broad irrigation	.....	Overflow to Cold Spring Harbor	Pollutions of bathing or recreational waters and nuisances
Carlstadt	3-12-08	1910	....	Sedimentation tanks	284,000	Berry's Creek	Pollutions of bathing or recreational waters and nuisances

Chatham	8-16-10 Amended 10-31-11	1911	1930	Imhoff tanks, aeration tanks, final sedimentation tanks (with mechanical sludge removal), chlorinator, chlorine contact tank, intermittent sand filters, sludge digestion tank and sludge drying beds	2,000,000	Passaic River	Pollution of potable waters
Chester Township	3-2-26	1927	....	Imhoff tanks, sprinkling filter, chlorinator, final settling tanks (and chlorine contact combined), and sludge drying beds	1,000,000	North Branch Pensauken Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Cliffside Park	6-27-11	1914	....	Sedimentation tank	.....	Hudson River	Pollutions of bathing or recreational waters and nuisances
Collingswood	5-14-00	1901	1930	Preliminary sedimentation tanks (with mechanical sludge removal), aeration tanks—final sedimentation tanks (with mechanical sludge removal), chlorinator, chlorine contact tank, sludge digestion tanks and glass-covered sludge drying beds	2,000,000	Newton Lake, Delaware River	Pollutions of bathing or recreational waters and nuisances
Deal	4-13-09	1909	1930	Sedimentation tanks, chlorinator, chlorine contact tank and sludge digestion tank	1,500,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Delaware Township	1-10-28	1929	....	Imhoff tank, sprinkling filter, final sedimentation tanks and glass-covered sludge drying beds	200,000	Cooper River, Delaware River	Pollutions of bathing or recreational waters and nuisances
Delaware Township	10-6-25	1926	....	Imhoff tank, sprinkling filter, final sedimentation tank and sludge drying beds	150,000	Pensauken Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
East Rutherford	3-12-08	1911	....	Sedimentation tanks	.....	Berry's Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Egg Harbor	7-6-20	1922	....	Imhoff tanks, intermittent sand filters and sludge drying beds	262,000	Landing Creek, tributary of Mullica River	Pollution of shellfish area
Englewood	4-4-11	1912	....	Sedimentation tank and sludge drying bed	*900,000 (1931)	Overpeck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Englewood Cliffs	4-4-26	1927	....	Imhoff tanks and glass-covered sludge drying beds	216,000	Hudson River	Pollutions of bathing or recreational waters and nuisances
Essex Fells	....	1894	1905	Sedimentation tanks, intermittent sand filters, chlorinator, final sedimentation tank (and chlorine contact combined) and sludge drying beds	.....	Caldwell Brook, Passaic River	Pollution of potable waters

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Fairview	Borough	Bergen	Fairview	9,067	part
Far Hills	Borough	Somerset	Far Hills	560	part
Flemington	Borough	Hunterdon	Flemington	2,729	2,729
Franklin	New Jersey Zinc Co.	Sussex	Franklin	4,176	part
Freehold	Borough	Monmouth	Freehold	6,894	6,894
Glassboro	Borough	Gloucester	Glassboro	4,799	4,799
Gloucester Township	Township	Camden	Blackwood section of Gloucester Township	5,820	630
Hackensack (Northern Plant) (Southern Plant)	City	Bergen	Hackensack	24,568	24,568
Haddonfield (Grove St. Plant)	Borough	Camden	Haddonfield	8,857	part
Haddonfield (Cuthbert Rd. Plant)	Borough	Camden	Haddonfield, part Westmont, Haddon Township	8,857 1,010	part part
Haddon Heights	Borough	Camden	Haddon Heights	5,394	5,894

Maddon Township	Township	Camden	Battlewood Section of Haddon Township	9,198	part
Haddon Township	Township	Camden	West Collingswood Section of Haddon Township	9,198	part
Haddon Township	Towaship	Camden	Westmont Section of Haddon Township	9,198	part
Haddon Township	Township	Camden	West Westmont section of Haddon Township	9,198	part
Hammonton	Town	Atlantic	Hammonton	7,658	7,658
Hasbrouck Heights	Borough	Bergen	Hasbrouck Heights	5,658	5,658
Helmetta	George W. Helme Co.	Middlesex	Helmetta	801	801
Highlands	Borough	Monmouth	Highlands	1,877*	1,877*
Hightstown	Borough	Mercer	Hightstown	3,012	3,012
Hobokus Township	American Land and Building Company	Bergen	Mahwah Section of Hobokus Township	3,536	561
Island Heights (Plant No. 1)	Borough	Ocean	Island Heights	453*	part
Island Heights (Plant No. 2)	Borough	Ocean	Island Heights	453*	part
Keansburg	Borough	Monmouth	Keansburg	2,190*	2,190*
Kearny	Town	Hudson	Kearny	40,716	40,716
Keyport	Borough	Monmouth	Keyport	4,940*	4,940*
Lakehurst	Lakehurst Sewer Co.	Ocean	Lakehurst	947*	part

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Fairview	6-11-12	1915	1916	Imhoff tanks, dosing tanks, contact beds and glass-covered sludge drying beds	1,300,000	Bellman's Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Far Hills	7-2-29	1932	....	Septic tank, chlorinator and chlorine contact tank	30,000	Mine Brook, North Branch of Raritan River	Pollution of potable waters
Flemington	....	1898	....	Sedimentation tank and intermittent sand filters	.....	South Branch Raritan River	Pollution of potable waters
Franklin	10-2-23	1924	....	Septic tanks and chlorination	62,000	Tributary to Wallkill River	Pollutions of bathing or recreational waters and nuisances
Freehold	....	1892	1930	Sedimentation tanks (with mechanical sludge removal), sprinkling filters, chlorinator, final sedimentation tank (and chlorine contact combined), sludge digestion tank and sludge drying beds	600,000	Tributary to Manasquan River	Pollutions of bathing or recreational waters and nuisances
Glassboro	4-7-25	1926	....	Imhoff tanks, sprinkling filters, chlorinator, final sedimentation tank (and chlorine contact combined) and sludge drying beds	400,000	Chestnut Branch Mantua Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Gloucester Township	5-7-29	1930	....	Imhoff tanks, chlorinator, dosing tank, sprinkling filters, final sedimentation tank and sludge drying beds	200,000	Big Timber Creek, tributary to Delaware River	Pollutions of bathing or recreational waters and nuisances
Hackensack (Northern Plant) (Southern Plant)	6-20-22 Amended 6-5-23	....	....	Flotation basins, Imhoff tanks and sludge drying beds	.....	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Haddonfield Borough (Grove St. Plant)	2-1-01	1903	1921 1929	Chlorinator (pre) Imhoff tank, sprinkling filter, final sedimentation tank, and glass-covered sludge drying beds	1,000,000	Cooper River, Delaware River	Pollutions of bathing or recreational waters and nuisances
Haddonfield Borough (Cuthbert Rd. Plant)	5-3-19	1921	....	Chlorinator (pre) Imhoff tanks, sprinkling filter, final sedimentation tanks and glass-covered sludge drying beds	372,000	Newton Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Haddon Heights	6-7-10	1911	1922 1929	Modified Imhoff tanks, sprinkling filter (glass-covered), chlorinator, final sedimentation tank (and chlorine contact combined), sludge digestion tank and glass-covered	425,000	Kings Run, Newton Creek	Pollutions of bathing or recreational waters and nuisances

Haddon Township	6-6-22	1925	....	Sedimentation tank, sprinkling filters, final sedimentation tanks, sludge digestion tank and sludge drying beds	46,100	Newton Lake, Newton Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Haddon Township	7-7-22	1923	....	Imhoff tank and sludge drying beds	60,000	Newton Creek	Pollutions of bathing or recreational waters and nuisances
Haddon Township	5-3-19	1921	....	Imhoff tank, sprinkling filter, final sedimentation tanks and sludge drying beds	170,000	Tributary to Cooper River, Delaware River	Pollutions of bathing or recreational waters and nuisances
Haddon Township	6-3-24	1925	....	Sedimentation tanks and sludge drying beds	215,000	Cooper River, Delaware River	Pollutions of bathing or recreational waters and nuisances
Hammonton	4-8-13 Amended 7-1-13	1914	....	Imhoff tank, sprinkling filter, final sedimentation tank and sludge drying beds	300,000	Hammonton Creek, Mullica River	Pollution of shellfish area
Hasbrouck Heights	6-3-24	1926	....	Sedimentation tanks, chlorinator and chlorine contact tank	*404,500 (1923)	Riser Ditch, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Helmetta	2-25-13	1914	....	Sedimentation tanks, primary contact beds and sludge drying beds	25,000	South River	Pollutions of bathing or recreational waters and nuisances
Highlands	6-5-28	1928	....	Sedimentation tanks, chlorinator, chlorine contact tank and glass-covered sludge drying beds	1,200,000	Atlantic Ocean	Pollution of shellfish area
Hightstown	8-8-11	1913	....	Sedimentation tank, intermittent sand filters and sludge drying beds	.....	Rocky Brook, Millstone River	Pollutions of bathing or recreational waters and nuisances
Hohokus Township	12-7-15	1916	....	Sedimentation tank and chlorinator	.....	Ramapo River	Pollutions of bathing or recreational waters and nuisances
Island Heights (Plant No. 1)	....	1899	....	Basket screen, sand filters, chlorinator and chlorine contact tank	.....	Tributary to Toms River	Pollutions of bathing or recreational waters and nuisances
Island Heights (Plant No. 2)	6-29-16	1918	....	Sedimentation tanks, intermittent sand filters and sludge drying beds	.....	Toms River	Pollutions of bathing or recreational waters and nuisances
Keansburg	10-30-23 Amended 7-1-24	1924	....	Fine mechanical screens and chlorinator	2,000,000	Raritan Bay	Pollution of shellfish area
Kearny	10-2-23 Amended 2-5-24	1924	....	Mechanical screens	2,000,000	Hackeusack River	Pollutions of bathing or recreational waters and nuisances
Keyport	1-25-10	1912	....	Sedimentation tanks, hypochlorite of lime equipment and contact tank	*450,000 (6-10-30)	Raritan Bay	Pollution of shellfish area
Lakehurst	4-20-03	1904	....	Sedimentation tanks and intermittent sand filters	.....	West Branch Toms River	Pollutions of bathing or recreational waters and nuisances

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Lakewood Township	Lakewood Water Co.	Ocean	Lakewood Township	7,869*	part
Lavallette	Borough	Ocean	Lavallette	287*	287*
Leonia (South Side Plant)	Borough	Bergen	Southern Section of Leonia	5,350	part
Leonia (North Side Plant)	Borough	Bergen	Northern Section of Leonia	5,350	part
Little Falls	Township	Passaic	Little Falls Township	5,161	5,161
Little Ferry	Borough	Bergen	Little Ferry	4,151	4,151
Lodi Township	Township	Bergen	Lodi Township	1,294	1,294
Long Branch	Long Branch Sewer Co.	Monmouth	Long Branch	18,399*	part
Long Branch	City	Monmouth	Northern Section of Long Branch	18,399*	part
Long Branch	City	Atlantic	Branchport Section of Long Branch	18,399*	part

Longport (14th St. Plant)	Borough	Atlantic	Southern Section of Longport	228*	part
Longport	Borough	Atlantic	Longport	228*	part
Lyndhurst	Township	Bergen	Lyndhurst	17,362	17,362
Manasquan	Borough	Monmouth	Manasquan	2,320*	2,320
Mantua	Job Scott Estates	Gloucester	Section of Mantua Township	2,677	part
Matawan	Borough	Monmouth	Matawan	2,264	2,264
Maywood	Borough	Bergen	Maywood North Hackensack Section	3,398	3,398 part
Medford Township	Medford Sewer Co.	Burlington	Medford	2,021	part
Merchantville	Merchantville-Pensauken Township Joint Sewer Commission	Camden	Merchantville Pensauken Township Section of Delaware Township	3,592 16,915 5,734	3,592 part
Metuchen	Borough	Middlesex	Metuchen	5,748	5,748
Middlesex	Joint Meeting of Plainfield, North Plainfield and Dunellen	Middlesex	Plainfield (Union) North Plainfield (Somerset) Dunellen (Middlesex) Fanwood (Union County)	34,422 9,760 5,148 1,681	34,422 9,760 5,148 part
Millville	City	Cumberland	Millville	14,705	14,705
Moorestown	Township	Burlington	Moorestown	7,247	7,247

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Lakewood Township	11-10-08	1900	1929	Sedimentation tanks (with mechanical sludge removal), sludge digestion tank, intermittent sand filters, chlorinator, chlorine contact tank and sludge drying beds	*1,000,000 winter 450,000 summer 2,500,000 (Design) 868,000	Metedeconk River	Pollutions of bathing or recreational waters and nuisances
Lavallette	9-18-28	1929	....	Sedimentation tank, chlorinator and chlorine contact tank	.....	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Leonia (South Side Plant)	6-6-13	1914	1925	Grit chamber, sedimentation tanks (single story and Imhoff) and sludge drying beds.	.....	Overpeck Creek	Pollutions of bathing or recreational waters and nuisances
Leoula (North Side Plant)	7-31-23	1924	1929	Grit chamber, sedimentation tank, chlorinator and chlorine contact tank	200,000	Overpeck Creek	Pollutions of bathing or recreational waters and nuisances
Little Falls	....	1902	1932	Sedimentation tanks (with mechanical sludge removal), sprinkling filters, chlorinator, final sedimentation (and chlorine contact combined), intermittent sand filters, sludge digestion tank and glass-covered sludge beds.	580,000	Peckman River	Pollutions of bathing or recreational waters and nuisances
Little Ferry	5-6-24	1926	....	Sedimentation tanks and sludge drying beds	381,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Lodi Township	4-2-29	1930	....	Sedimentation tanks	100,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Long Branch	....	Prior to 1902	1932	Sedimentation tanks (with mechanical sludge removal), chlorinator (pre and post) and sludge digestion tank	2,237,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Long Branch	9-13-21	1922	....	Sedimentation tank and chlorinator	.....	Manahasset Creek, tributary to Shrewsbury River	Pollution of shellfish area
Long Branch	....	1923	....	Sedimentation tanks and chlorinator	.....	Branchport Creek, tributary to Shrewsbury River	Pollution of shellfish area

Longport (14th St. Plant)	5-14-12	1913	....	Imhoff tanks and hypochlorite of lime equipment	.....	Risley's Channel	Pollution of shellfish area
Longport	4-5-27	1928	....	Basket screens, sedimentation tanks, sludge digestion tanks, chlorinator, chlorine contact tank and sludge drying beds	500,000	Risley's Channel	Pollution of shellfish area
Lyndhurst	4-18-16	1919	1923	Imhoff tanks and sludge drying beds	300,000	Kingsland Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Manasquan	10-3-04	1905	1928 1931	Sedimentation tanks, chlorinator and chlorine contact tank	525,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Mantua	7-7-25	1926	....	Sedimentation tank, sprinkling filter, chlorinator (not in use), final sedimentation tank (and chlorine contact combined) and sludge drying bed	30,000	Mantua Creek	Pollutions of bathing or recreational waters and nuisances
Matawan	9-12-22	1924	....	Imhoff tank, chlorinator, chlorine contact tank and glass-covered sludge drying beds	*150,000 (1922)	Matawan Creek	Pollutions of bathing or recreational waters and nuisances
Maywood	2-23-15	1917	1931 1932	Imhoff tanks and glass-covered sludge drying beds	1,472,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Medford Township	....	About 1905	1911	Sedimentation tanks and intermittent sand filters	.....	Haynes' Creek, tributary South Branch Rancocas Creek	Pollution of potable waters
Merchantville	4-30-06	1909	1924	Grit chamber, sedimentation tanks (with mechanical sludge removal), sludge digestion tank and sludge drying beds	806,000	Cooper River	Pollutions of bathing or recreational waters and nuisances
Metuchen	4-2-22 Amended 7-7-25 10-6-25	1926	....	Bar screens, Imhoff tanks, intermittent sand filters and sludge drying beds	140,000	Dismal Swamp Brook, Bound Brook, Raritan River	Pollutions of bathing or recreational waters and nuisances
Middlesex	11-12-12 Amended 9-29-14	1916	....	Grit chamber, fine screens, sedimentation tanks, chlorinator, sprinkling filters, final sedimentation tank, sludge digestion tank and sludge drying beds	3,500,000	Green Brook, tributary Raritan River	Pollutions of bathing or recreational waters and nuisances
Millville	9-8-08	1909	1924	Sedimentation tanks, chlorinator (pre and post) and chlorine contact tank	1,000,000	Maurice River	Pollution of shellfish area
Moorestown	6-10-01	1904	1929	Imhoff tanks, sprinkling filter, chlorinator, final sedimentation tanks (and chlorine contact combined), sludge digestion tank and glass-covered sludge drying beds	1,000,000	North Branch of the Pensauken Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Morristown	Town	Morris	Morristown	15,197	15,197
Mount Ephraim	Borough	Camden	Mount Ephraim	2,319	2,319
Neptune City	Borough	Monmouth	Neptune City	2,258*	2,258
Neptune Township	Township	Monmouth	Neptune Township	10,625*	part
Newton (Clinton St. Plant)	Town	Sussex	Newton	5,401	part
Newton (Sparta St. Plant)	Town	Sussex	Newton	5,401	part
North Arlington	Borough	Bergen	North Arlington	8,263	part
North Bergen (Northern District)	Township	Hudson	North Bergen	40,714	part
North Bergen (Central District)	Township	Hudson	North Bergen	40,714	part

North Brunswick Township	Township	Middlesex	North Brunswick Township	3,622	part
North Wildwood	City	Cape May	North Wildwood	2,049*	2,049
Oaklyn	Borough	Camden	Oaklyn	3,483	3,483
Ocean City	Ocean City Sewer Service Company	Cape May	Ocean City	5,525*	part
Ocean Grove	Ocean Grove Camp Meeting Assoc.	Monmouth	Ocean Grove Section of Neptune Township	10,625	3,050*
Ocean Township	Borough of Interlaken, Township of Ocean	Monmouth	Borough of Interlaken Township of Ocean	545* 2,892*	545* 1,000*
Oradell	Borough	Bergen	Oradell	2,360	2,360
Palisades Park	Borough	Bergen	Palisades Park	7,065	7,065
Palmyra	Borough	Burlington	Palmyra	4,968	4,968
Paulsboro	Borough	Gloucester	Paulsboro	7,121	7,121
Pemberton	Borough	Burlington	Pemberton	783	part
Perth Amboy	City	Middlesex	Lehigh Park Section of Perth Amboy	43,516	part
Perth Amboy	City	Middlesex	Kennedale Park Section of Perth Amboy	43,516	part
Phillipsburg	Town	Warren	Phillipsurg	19,255	19,255

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Morristown	4-1-07	1910	1931	Preliminary sedimentation tanks (with mechanical sludge removal), aeration tanks, final sedimentation tanks (with mechanical sludge removal), chlorinator, chlorine contact tanks, sludge digestion tanks and sludge drying beds	2,000,000	Whippany River	Pollutions of bathing or recreational waters and nuisances
Mount Ephraim	9-13-27 Revised 11-1-27	1929	....	Sedimentation tanks (with mechanical sludge removal), sprinkling filter, chlorinator, final sedimentation tank (and chlorine contact combined), sludge digestion tanks and glass-covered sludge drying beds	500,000	Little Timber Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Neptune City	12-7-26	1927	....	Sedimentation tanks and chlorinator and chlorine contact tank	310,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Neptune Township	7-9-12	1913	1924 1929	Sedimentation tanks and chlorinator	1,164,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Newton (Clinton St. Plant)	6-5-05	1906	1931	Grit chamber, sedimentation tanks, sprinkling filters, final sedimentation tanks (with mechanical sludge removal), sludge digestion tanks and glass-covered sludge drying beds	500,000	Paulin's Kill	Pollutions of bathing or recreational waters and nuisances
Newton (Sparta St. Plant)	6-5-05	1906	....	Grit chamber, sedimentation tank, intermittent sand filter and sludge drying beds (one glass-covered)	300,000	Paulin's Kill	Pollutions of bathing or recreational waters and nuisances
North Arlington	7-31-17	1919	....	Imhoff tank and sludge drying bed	204,000	Kingsland Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
North Bergen (Northern District)	2-19-24	1927	....	Sedimentation tanks and glass-covered sludge drying beds	1,000,000	Bellman's Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
North Bergen (Central District)	9-14-26	1927	....	Sedimentation tanks and glass-covered sludge drying beds	810,000	Cromakill Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances

North Brunswick Township	10-6-25	1927	....	Preliminary sedimentation tanks and Imhoff tank (in series), sprinkling filters, final sedimentation tank (Imhoff) and glass-covered sludge drying beds	250,000	Mile Run, Raritan River	Pollutions of bathing or recreational waters and nuisances
North Wildwood	9-13-27	1929	....	Sedimentation tanks, chlorinator, chlorine contact tank and glass-covered sludge drying beds	2,110,000	Hereford Inlet	Pollution of shellfish area
Oaklyn	6-12-15	1915	....	Imhoff tank, sprinkling filter, chlorinator, final sedimentation tank (and chlorine contact combined) and sludge drying beds	168,000	Peter's Creek, Newton Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances
Ocean City	3-14-11 Amended 4-25-11	1912	1931	Sedimentation tanks (with mechanical sludge removal), chlorinator (pre and post), chlorine contact tank, sludge digestion tanks and glass-covered sludge drying beds	2,600,000	Great Egg Harbor Bay	Pollution of shellfish area
Ocean Grove	2-2-09	1910	1925 1930	Sedimentation tanks, chlorinator and chlorine contact tank	.....	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Ocean Township	9-24-06	1907	1926 1930	Sedimentation tanks	400,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Oradell	7-18-04	1905	1929	Sedimentation tanks (with mechanical sludge removal), sludge digestion tanks and glass-covered sludge drying beds	650,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Palisades Park	1-13-14 Amended 5-11-15	1917	....	Grit chamber, Imhoff tanks and sludge drying beds	.....	Overpeck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Palmyra	5-13-19 Amended 2-7-22	1922	....	Sedimentation tank, sludge digestion tanks and sludge drying beds	423,000	Delaware River	Pollutions of bathing or recreational waters and nuisances
Paulsboro	2-19-18	1922	....	Imhoff tanks and sludge drying beds	480,000	Mantua Creek	Pollutions of bathing or recreational waters and nuisances
Pemberton	....	1895	....	Broad irrigation	.....	.....	.....
Perth Amboy	6-5-23	1924	....	Sedimentation tank	135,000	Ditch, Tributary to Staten Island Sound	Pollutions of bathing or recreational waters and nuisances
Perth Amboy	7-1-24	1925	....	Sedimentation tank	135,000	Tributary of Raritan River	Pollutions of bathing or recreational waters and nuisances
Phillipsburg	4-12-19	1920	....	Fine mechanical screens, sedimentation tanks (chemical precipitation) and sludge drying beds	.....	Delaware River	Pollution of potable waters

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Pitman, Plant No. 1	Borough	Gloucester	West Side of Pitman	5,411	part
Pitman, Plant No. 2	Borough	Gloucester	East Side of Pitman	5,411	part
Pleasantville Point Pleasant Beach	City Borough	Atlantic Ocean	Pleasantville Point Pleasant Beach	11,580 1,844*	11,580 1,844
Princeton	Borough	Mercer	Princeton Princeton Township Princeton University	6,992 1,895	6,992 part 911
Raritan Township	Township	Middlesex	Clara Barton Section of Raritan Township	10,025	part
Red Bank	Borough	Monmouth	Red Bank	11,622*	11,622
Ridgefield	Borough	Bergen	Ridgefield	4,671	4,671
Ridgefield Park (East Side Plant)	Village	Bergen	Ridgefield Park	10,764	part
Ridgefield Park (West Side Plant)	Village	Bergen	Ridgefield Park	10,764	part
Riverside	Borough	Bergen	Riverside	2,210	2,210

Riverside	Township	Burlington	Riverside	7,061	part
Roebling	John A. Roebling Sons Co.	Burlington	Roebling Section of Florence Township	7,824	3,030
Rumson	Rumson Land Development Company	Monmouth	Rumson	2,073*	part
Rutherford	Borough	Bergen	East Side of Rutherford	14,915	14,915
Sea Girt	Borough	Monmouth	Sea Girt	386*	386
Sea Isle City	City	Cape May	Sea Isle City	850*	850
Seaside Heights	Borough	Ocean	Seaside Heights	399*	399
Seaside Park	Borough	Ocean	Seaside Park	571*	571
Secaucus (Front St. Plant)	Town	Hudson	Secaucus	8,950	part
Secaucus (Golden Ave. Plant)	Town	Hudson	Secaucus	8,950	part
South Bound Brook	Borough	Somerset	South Bound Brook	1,763	1,763
Spring Lake (Pennsylvania Ave.)	Borough	Monmouth	Spring Lake	1,145*	part
Spring Lake (Pitney Ave.)	Borough	Monmouth	Spring Lake	1,745*	part
Stone Harbor	Borough	Cape May	Stone Harbor	363*	part
Teaneck Township (Plant No. 1, Pomeroy Walk)	Township	Bergen	Western Section of Teaneck Township	16,513	part
Teaneck Township (Plant No. 2, Glenwood Park)	Township	Bergen	Eastern Section of Teaneck Township	16,513	part

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Pitman (Plant No. 1)	12-21-15	1917	1928	Imhoff tank, sprinkling filter, final sedimentation tanks and sludge drying beds	300,000	Chestnut Branch, Mantua Creek	Pollutions of bathing or recreational waters and nuisances
Pitman (Plant No. 2)	12-21-15	1918	....	Imhoff tank, sprinkling filter, final sedimentation tanks and sludge drying beds	140,000	Mantua Creek	Pollutions of bathing or recreational waters and nuisances
Pleasantville	5-15-17	1921	....	Mechanical screens	612,000	Beach Thoroughfare	Pollution of shellfish area
Point Pleasant Beach	8-25-08	1908	1928	Sedimentation tank, chlorinator and chlorine contact tank	1,500,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Princeton	....	1895	1932	Sedimentation tanks, sprinkling filters, chlorinator (pre and post) final sedimentation (and chlorine contact combined), sludge digestion tanks and glass-covered sludge drying beds	2,000,000	Millstone River	Pollution of potable waters
Raritan Township	4-2-29	1929	....	Chlorinator (pre) screen and grit chamber, Imhoff tank and sludge drying beds	750,000	Tributary of Raritan River	Pollution of potable waters
Red Bank	1-27-02	1902	1929	Mechanical bar screens, grit chamber, sedimentation tanks (with mechanical sludge removal), chlorinator, chlorine contact tank, sludge digestion tank and glass-covered sludge drying beds	1,600,000	Shrewsbury River	Pollution of shellfish area
Ridgefield	12-6-21	1922	1931	Grit chambers, Imhoff tank and glass-covered sludge drying beds	*2,343,000	Overpeck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Ridgefield Park (East Side Plant)	10-13-14 Amended 3-7-16	1922	....	Grit chamber, Imhoff tanks and sludge drying beds	830,000	Overpeck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Ridgefield Park (West Side Plant)	10-13-14 Amended 10-7-16	1922	....	Grit chambers, Imhoff tanks and sludge drying beds	.....	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Riverside	4-9-15	1915	1929	Grit chamber, Imhoff tanks and glass-covered sludge drying beds	365,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances

Riverside	7-11-07	1908	....	Primary sedimentation tanks, contact bed, final sedimentation tank and sludge drying bed	*300,000 (Actual)	Delaware River	Pollutions of bathing or recreational waters and nuisances
Roebling	1-12-09 Amended 9-21-09	1910	1921	Imhoff tanks, sprinkling filters and sludge drying beds	*300,000 (Actual)	Delaware River	Pollution of potable waters
Rumson	7-11-11	1912	....	Sedimentation tank and hypochlorite disinfection	.....	Shrewsbury River	Pollution of shellfish area
Rutherford	9-9-24 Amended 8-11-25	1925	...	Sedimentation tanks and sludge drying beds	.....	Tributary to Berry's Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Sea Girt	4-19-10	1910	....	Sedimentation tanks	.....	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Sea Isle City	11-14-11	1915	....	Sedimentation tanks, chlorinator and chlorine contact tank	.....	Ludlan's Thoroughfare	Pollution of shellfish area
Seaside Heights	5-10-28	1928	....	Sedimentation tanks and chlorinator	375,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Seaside Park	2-23-15	1916	....	Imhoff tank, chlorinator, chlorine contact tank and sludge drying bed	.....	Barneget Bay	Pollution of shellfish area
Secaucus (Front St. Plant)	4-29-12	1913	....	Grit chamber and sedimentation tank	.....	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Secaucus (Golden Ave. Plant)	6-3-13	1920	....	Grit chamber and sedimentation tank	.....	Mill Creek, tributary Hackensack River	Pollutions of bathing or recreational waters and nuisances
South Bound Brook	8-6-12 Amended 10-5-15	1916	....	Sedimentation tanks and sludge drying bed	.....	Raritan River	Pollution of potable waters
Spring Lake (Pennsylvania Ave.)	3-9-09	1909	1931	Sedimentation tanks (with mechanical sludge removal), grit chamber, chlorinator (pre and post), sludge digestion tanks and chlorine contact tank	1,040,000	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Spring Lake (Pitney Ave.)	12-8-08	1909	....	Sedimentation tank and chlorinator	.....	Atlantic Ocean	Pollutions of bathing or recreational waters and nuisances
Stone Harbor	12-8-08 Amended 2-2-09	1910	1930	Sedimentation tanks, chlorinator and glass-covered sludge drying beds	1,200,000	Great Channel	Pollution of shellfish area
Teaneck Township (Plant No. 1, Pomander Walk)	5-18-20	1921	1926	Grit chamber, Imhoff tank and glass-covered sludge drying beds	700,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Teaneck Township (Plant No. 2, Glenwood Park)	5-18-20	1922	1926	Grit chamber, Imhoff tank and glass-covered sludge drying beds	217,900	Teaneck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Teaneck Township (Plant No. 3, West Englewood Section)	Township	Bergen	West Englewood Section	16,513	part
Teaneck Township (Plant No. 4, Vandalinda Tract)	Township	Bergen	Vandalinda Section	16,513	part
Tenafly	Borough	Bergen	Tenafly	5,669	5,669
Toms River	Dover Township	Ocean	Toms River	1,800*	part
Totowa	Borough	Passaic	Totowa	4,600	4,600
Trenton	City	Mercer	Trenton Hamilton Township Lawrence Township Ewing Township	123,356 27,121 6,293 6,942	123,356 part part part
Ventnor	City	Atlantic	Ventnor Margate City	6,674* 2,913	6,674 2,913
Verona	Borough	Essex	Verona	7,161	7,161
Vineland	Borough	Cumberland	Vineland	7,556	part

Wanaque	E. I. du Pont de Nemours & Company	Passaic	Haskell Section of Borough of Wanaque	3,119	845
Washington	Borough	Warren	Washington	4,410	4,410
Wayne Township	Packanack Lake, Inc.	Passaic	Packanack Lake Section of Wayne Township	4,469	862
Wayne Township	Broadway Construction Company	Passaic	Wayne Township	4,469	part
Wenonah (Mantua Ave. Plant)	Greene Estate	Gloucester	Mantua Avenue Section of Wenonah	1,245	part
Wenonah (Princeton Ave. Plant)	Greene Estate	Gloucester	Princeton Ave. Section of Wenonah	1,245	part
West Milford Township	City of Newark	Passaic	Macopin Section of West Milford Township	1,901	part
West Paterson	Borough	Passaic	West Paterson	3,101	3,101
West Wildwood	Borough	Cape May	West Wildwood	178*	178
Westwood	Borough	Bergen	Westwood	4,861	4,861
Wildwood	City	Cape May	Wildwood	5,330*	5,330
Wildwood Crest	Borough	Cape May	Wildwood Crest	738*	738
Woodbridge Township	Township	Middlesex	Home Garden Section	25,266	part
Woodbridge Township	Township	Middlesex	Coddington Avenue Section	25,266	part

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Teaneck Township (Plant No. 3, West Englewood Section)	5-18-20	1922	1926	Grit chamber, Imhoff tanks and glass-covered sludge drying beds	700,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Teaneck Township (Plant No. 4, Vandalinda Tract)	10-7-24 Amended 1-6-25	1925	1928	Grit chambers, Imhoff tanks and glass-covered sludge drying beds	2,200,000	Overpeck Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Tenafly	9-14-26	1927	1932 1933	Mechanical fine screens, aeration tanks, final sedimentation tanks, intermittent sand filters, chlorinator, chlorine contact tank, reaeration tank, sludge conditioning tank and glass-covered sludge drying beds	750,000	Tenakill Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Toms River	6-20-16	1922	....	Imhoff tanks and chlorinator	*194,000	Toms River	Pollutions of bathing or recreational waters and nuisances
Totowa	7-5-27	1929	....	Grit chamber, Imhoff tanks, glass-covered sprinkling filters, chlorinator (pre and post), final sedimentation tanks (and chlorine contact combined) and glass-covered sludge drying beds	400,000	Passaic River	Pollutions of bathing or recreational waters and nuisances
Trenton	10-7-24	1926	....	Mechanical bar screens, grit chamber, Imhoff tanks and sludge drying beds	25,000,000	Delaware River	Pollution of potable waters
Ventnor	7-5-10 Amended 2-24-14	1911	1933	Sedimentation tanks, separate sludge digestion tanks, chlorinator, chlorine contact tank and sludge drying beds	3,500,000	Beach Thoroughfare	Pollution of shellfish area
Verona	9-3-29 7-21-14	1917	1924	Sedimentation tanks, contact beds, intermittent sand filters and sludge drying beds	1,200,000	Peckman River, Tributary to Passaic River	Pollutions of bathing or recreational waters and nuisances
Vineland	7-12-00	1901	1922	Sedimentation and broad irrigation	.....	.....	.....

Wanaque	4-18-16	1916	1918	Sedimentation tanks, intermittent sand filters and sludge drying beds	.....	Tributary to Pompton River	Pollutions of bathing or recreational waters and nuisances
Washington	3-9-09	1911	1929	Preliminary sedimentation tanks (single story and Imhoff), sprinkling filter, intermittent sand filters (not in use), chlorinators and glass-covered sludge drying beds	395,000	Shabbecong Creek, Pohatcong Creek	Pollutions of bathing or recreational waters and nuisances
Wayne Township	4-2-29	1929	....	Imhoff tanks, sprinkling filters, chlorinator, final sedimentation tank (and chlorine contact combined) and sludge drying beds	300,000	Big Ditch, Tributary of Pompton River	Pollutions of bathing or recreational waters and nuisances
Wayne Township	....	....	....	Sedimentation tank, sprinkling filter and chlorinator	.....	Tributary to Pompton River	Pollutions of bathing or recreational waters and nuisances
Wenonah (Mantua Ave. Plant)	....	Prior to 1904	1913	Sedimentation tanks and intermittent sand filters	.....	Mantua Creek	Pollutions of bathing or recreational waters and nuisances
Wenonah (Princeton Ave. Plant)	....	Prior to 1904	1913	Sedimentation tanks and intermittent sand filters	.....	Mantua Creek	Pollutions of bathing or recreational waters and nuisances
West Milford Township	7-29-13	1914	....	Imhoff tanks and intermittent sand filters	.....	Pequanook River	Pollution of potable waters
West Paterson	6-4-29	1929	....	Grit chamber, Imhoff tanks, glass-covered sprinkling filters, chlorinator (pre and post), final sedimentation tanks (and chlorine contact combined) and glass-covered sludge drying beds	400,000	Passaic River	Pollutions of bathing or recreational waters and nuisances
West Wildwood	12-6-21	1922	....	Sedimentation tanks, chlorinator and chlorine contact tank	45,000	Post Creek, Tributary to Grassy Sound	Pollution of shellfish area
Westwood	1-7-26	1926	....	Grit chamber, sedimentation tanks, intermittent sand filters and sludge drying beds	1,329,000	Hackensack River	Pollutions of bathing or recreational waters and nuisances
Wildwood	12-21-15	1916	....	Modified Imhoff tanks, chlorinator, chlorine contact tank, sludge digestion tank and glass-covered sludge drying beds	5,000,000	Sunset Lake, (Post Creek) Tributary to Grassy Sound	Pollution of shellfish area
Wildwood Crest	11-16-11 Amended 2-6-12	1913	1928	Sedimentation tanks, chlorinator, chlorine contact tank and glass-covered sludge drying beds	560,000	Sunset Lake	Pollution of shellfish area
Woodbridge Township	10-6-25	1926	....	Sedimentation tank	.....	Mud Creek, Merd Creek, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	10-24-11	1912	....	Sedimentation tank	.....	Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	OWNERSHIP, MUNICIPALITY OR COMPANY	COUNTY OF LOCATION OF PLANT	MUNICIPALITIES OR LOCATIONS SERVED	Permanent Population, 1930 Census	Estimated Population Served
Woodbridge Township	Township	Middlesex	Avenal Section	25,266	part
Woodbridge Township	Township	Middlesex	Edgars Section	25,266	part
Woodbridge Township	Township	Middlesex	Fords Section	25,266	part
Woodbridge Township	Township	Middlesex	Rahway Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Port Reading Section	25,266	part
Woodbridge Township	Township	Middlesex	Pleasant Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Wedgewood Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Crampton Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Woodbridge Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Frazer Section	25,266	part
Woodbridge Township	Township	Middlesex	Woodbridge Boulevard and Central Avenue Section	25,266	part
Woodbridge Township	Township	Middlesex	Hope Lawn Section	25,266	part

Woodbridge Township	Township	Middlesex	Keasby Heights Section	25,266	part
Woodbury (Plant No. 1)	City	Gloucester	Woodbury	8,172	part
Woodbury (Plant No. 2)	City	Gloucester	Woodbury	8,172	part
Woodbury Heights	Borough	Gloucester	Woodbury Heights	997	part
Woodlynne	Borough	Camden	Woodlynne	2,878	2,878
Woodridge	Borough	Bergen	Woodridge	5,159	5,159
Woodstown	Woodstown Sewer Company	Salem	Woodstown	1,832	part
Wrightstown	Hanover Water Company	Burlington	Wrightstown	176	part

* Seasonal increase from 2 to 20 times in population.

** Sewage flow arriving at plant for treatment; other figures represent the design flow.

TABLE No. 6—MUNICIPAL SEWAGE TREATMENT PLANTS IN NEW JERSEY—Continued

LOCATION	Date of Approval of Plans for Original Plant	Plant Placed in Operation	Reconstruction of Plant	UNITS OF TREATMENT PLANT	SEWAGE FLOW IN GALLONS PER DAY	EFFLUENT DISCHARGED INTO	PLANT FOR THE PREVENTION OF
Woodbridge Township	10-7-19	1920	....	Sedimentation tank	.....	Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	10-17-11	1912	....	Sedimentation tank	.....	Stone Mill Brook, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	7-31-17	1921	....	Sedimentation tank	.....	Slingtail Creek, Crow's Mill Creek, Raritan River	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	3-2-26	1926	....	Sedimentation tank	.....	Stone Mill Brook, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	11-18-13	1914	....	Sedimentation tank	.....	Smith Creek, Arthur Kill, Staten Island Sound	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	....	....	....	Sedimentation tank	.....	Old Creek, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	7-31-17	1918	....	Sedimentation tank	.....	Stone Mill Brook, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	3-2-26	1926	....	Sedimentation tank	.....	Old Creek, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	11-18-13	1914	....	Sedimentation tank	.....	Coye Creek, Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	....	....	....	Sedimentation tank	.....	Tributary to Raritan Lake, Raritan River	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	5-4-26	1926	....	Sedimentation tank	.....	Woodbridge Creek	Pollutions of bathing or recreational waters and nuisances
Woodbridge Township	10-2-23	1924	....	Sedimentation tank	.....	Tributary to Raritan Lake, Raritan River	Pollutions of bathing or recreational waters and nuisances

Woodbridge Township	7-3-28	1928	....	Sedimentation tank	.....	Raritan Lake, Raritan River	Pollutions of bathing or recreational waters and nuisances
Woodbury (Plant No. 1)	6-10-01	1903	....	Tidal detention basin	.....	Woodbury Creek	Pollutions of bathing or recreational waters and nuisances
Woodbury (Plant No. 2)	9-13-21	1922	....	Imhoff tanks	350,000	Woodbury Creek	Pollutions of bathing or recreational waters and nuisances
Woodbury Heights	6-21-21	1921	....	Imhoff tanks, sprinkling filters and sludge drying beds	90,000	Woodbury Creek	Pollutions of bathing or recreational waters and nuisances
Woodlynne	3-6-23	1924	....	Imhoff tanks and glass-covered sludge drying beds	120,000	Newton Creek	Pollutions of bathing or recreational waters and nuisances
Woodridge	9-9-24	1925	....	Chlorinator (pre), screens (bar), Imhoff tank and sludge drying beds	250,000	Berry's Creek, Hackensack River	Pollutions of bathing or recreational waters and nuisances
Woodstown	12-18-05	1906	....	Sedimentation tank and intermittent sand filter	48,000	Salem Creek	Pollutions of bathing or recreational waters and nuisances
Wrightstown	4-2-18	1918	....	Sedimentation tanks, intermittent sand filters and sludge drying bed	.....	Crosswick's Creek, Delaware River	Pollutions of bathing or recreational waters and nuisances

* Seasonal increase from 2 to 20 times in population.

** Sewage flow arriving at plant for treatment; other figures represent the design flow.

Report of the Bureau of Food and Drugs

For the Year Ending June 30, 1933

W. W. SCOFIELD, CHIEF

The enforcement of Chapter 131 of the Laws of 1932, the act fixing minimum requirements for the production, handling, importation and distribution of milk, cream and milk products in New Jersey, required a large proportion of the work of this Bureau during the past year. The act provided that this Department was to be satisfied that the sanitary requirements fixed in the law were complied with before a permit to import milk, cream or milk products was granted in the cases of those dairy farms and milk plants located in other States from which it was intended to ship milk, cream or milk products into New Jersey. In the case of those premises which were to be used in the production and handling of milk or cream to be used as such in the fluid condition, the inspections were to be made by agents of this Department or of a local board of health of this State, and in the case of premises which were to be used in the production and handling of milk to be used for manufacturing purposes, the inspections were to be made by either of these New Jersey official agencies or by the board having similar authority in the States in which the dairy farms and milk plants were located.

Applications for permits were received from one hundred and forty-five individuals or firms to ship milk, cream or milk products into this State from four hundred and twenty-seven milk plants supplied by 79,977 farmers in the States of New York, Pennsylvania, Maryland, Delaware, Virginia, West Virginia, Tennessee, Indiana, Illinois, Ohio, Missouri, Michigan, Minnesota and Wisconsin.

The enforcement of this law established the fact that fluid milk was imported into New Jersey from the States of New York, Pennsylvania, Delaware and Maryland, and that no milk for any purpose was received in this State from areas outside of the abovementioned States, although large quantities of cream were shipped into this State from Wisconsin, Michigan, Indiana, West Virginia and Virginia. It was also established that it was necessary to import cream in order to supply the demand for fluid cream and also cream for manufacturing purposes, due to the fact that a very small amount of cream is produced in this State.

Because of the extremely large number of premises outside of the State on which milk, cream or milk products were being produced or handled for final distribution in New Jersey, it became evident shortly after the law went into effect that it would be impossible for this Department to obtain reports of official inspections of all of these premises within a reasonable time, as many local boards of health of this State and certain of the States from which milk or cream was imported did not cause inspections to be made of milk plants or dairy farms. Consequently, it became apparent that an extreme shortage of milk and cream would result in this State if the provisions of the act were rigidly enforced and permits were refused because of the lack of information regarding compliance with the requirements of the law. The Milk Committee of this Department carefully considered this situation and the Department of Health of this State adopted the following declaration of policy at the meeting of September 13, 1932:

1. The intent of the act is to assure not only a safe supply of milk, cream and milk products but a better supply in respect to cleanliness. It is essentially a preventive measure enumerating the specific requirements which are generally recognized as essential to the output of a wholesome product. Changes in methods and equipment, especially improvements which are expensive, should be made gradually with due consideration of the evident desire of speedy compliance with the law.

The Department invites the cooperation of producers, distributors and consumers alike in attaining these desired ends. In particular, we request local boards of health which maintain their own inspection service to cooperate with our own staff and with each other to secure greater uniformity in standards and to avoid unnecessary duplication of inspection.

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2. Permits for the importation of milk, cream and/or milk products shall be granted upon evidence satisfactory to this Department that the supply meets the minimum requirements of the law. Such evidence shall be furnished by inspections of dairies, milk plants and methods of handling by the State Department of Health, by local boards of health or other official authorities approved by this Department.

Pending complete inspection, temporary permits may be granted to persons or corporations of good repute for the importation of milk, cream and/or milk products, provided that any part or all of the supply may be excluded, or the permit revoked without hearing, whenever, upon evidence secured by inspection or by examination of products offered for sale, it shall appear that such holders of temporary permits are not complying with the law or making reasonable efforts to do so.

3. The necessity of giving particular attention to the sanitary character of fluid milk and cream imposes a heavy burden upon the staff and resources of the Department. Until the staff shall be increased and sufficient funds provided for traveling expenses and maintenance in the field, the territory for inspection must be limited to accessible portions of adjacent States—New York, Pennsylvania, Maryland and Delaware. Inspections made by local boards of health of this State or other approved governmental authorities should be checked from time to time by our own staff in order to secure greater uniformity in standards. A "cross-section" inspection of approximately ten per cent. of the dairies selected at random from those supplying any milk or cream plant shall be termed a sufficient test of the standing of such plant, and if conditions are found to be unsatisfactory the entire output of such plant shall be excluded from shipment into this State.

4. Applications for reinstatement, following the revocation or the refusal of a permit or the exclusion of any part or all of the output of any milk or cream plant, shall be made as in the first instance and granted only on evidence supplied by inspection or from other tests satisfactory to this Department. Inspection incident to the reinstatement of permits which have been revoked for violation of the sanitary provisions of law should not take precedence over regular duties of the staff.

5. In case of emergency arising from any cause which in the judgment of this Department may endanger the public health, special permits for the importation of milk, cream and/or milk products may be granted for limited periods and for restricted areas without prejudice to the standing of other permits which may be temporarily suspended. Such special permit may be granted forthwith on evidence satisfactory to this Department that the proposed supply is sanitariously safe, provided that as speedily as possible thereafter the customary inspections be made by the Department or its approved representatives.

6. Present laws set up higher standards than heretofore for milk and cream produced and offered for sale within the State, but made no provisions for their enforcement except on the remedial basis. Preventive treatment is no less important at home than abroad. Gradually and as rapidly as possible our local producers and distributors must be educated to better methods and those who are unwilling or unable to comply with the minimum requirements of the law should be eliminated. This can be done only upon inspection by own staff and/or by local boards of health. It is imperative, therefore, that there should be

closer cooperation than heretofore between the State Department and local boards. By more frequent conference of inspectors and by regular inter-change of information concerning official action a more uniform system of administration may be secured and excessive duplication of inspection avoided.

Numerous conferences were held during July, August and September of 1932 between the Milk Committee of this Department and representatives of local boards of health, agricultural officials, milk producers and distributors. These conferences were called for the purpose of securing the active cooperation of all interested persons in carrying into effect the provisions of this act with a minimum amount of duplication of effort and with uniformity of interpretation. Local boards of health of the State were requested to send copies of reports of inspections of dairy farms and milk plants located in other States to us in order that permits to import milk, cream or milk products might be granted as rapidly as possible. The Milk Committee of this Department secured authorization from the Governor to send agents of this Bureau into other States to make inspections of dairy farms and milk plants. The agents of this Department were detailed to make inspections of those supplies which were not inspected by local boards of health of this State. In making these investigations, our agents were instructed to enter premises in States other than New Jersey only after permission had been granted by the person in charge and inspections were then to be made without giving orders to the person to make changes in the equipment or methods of operation of the dairy farm or milk plant.

Affidavits were taken by officials of certain milk companies and of certain boards in other States that all of the dairy farms and milk plants in certain milk supplies were operated in conformity with the requirements of this law. Shortly after certain of these sworn statements were received, indisputable proof was also received that the statements were false and that those persons had deliberately sworn to falsehoods for the purpose of securing permits. Where the Milk Committee was able to prove that false statements had been submitted, the applications for permits were rejected or the temporary permits were revoked. The fact that the submission of false statements was likely to result in failure to obtain the desired permit soon spread and sworn statements

received during the late fall and winter were generally carefully drawn with exceptions noted of those requirements of the law which had not been met.

Rapid progress was made during the summer and fall of 1932 in the enforcement of the act as certain boards of health of this State forwarded reports of inspections made of milk supplies in New York and Pennsylvania and of cream supplies in Indiana, Ohio, Michigan and Wisconsin.

As the enforcement of the law proceeded, it became evident that several of the firms obtaining cream in the mid-western States were very anxious to hold the permits granted to them because of their unusual activity in compelling the dairymen to make the changes necessary to comply with the provisions of the New Jersey law. In certain cases, forces of men with concrete mixing machines or forces of carpenters were employed by the firms and were ordered to install concrete floors in cow stables or to build milk houses on those premises not so equipped.

The Milk Committee of the Department decided in the early winter to concentrate inspection on the dairy premises in New Jersey. In carrying out this work, the Milk Committee took the position outlined in the act that the attention of local boards of health of those municipalities in which the milk was distributed was to be called to their failure to enforce the provisions of the act.

Inspections were made of certain of the milk supplies in New Jersey and it was gratifying to learn of the fine spirit of compliance on the part of dairymen and milk plant operators in complying with the provisions of the act.

In those cases where dairy farms did not meet the requirements, the matter was directed to the boards of health of the municipalities where the milk was distributed, in cases where the local boards of health had not filed resolutions of their inability to enforce the law (as specified in the law), and in those cases where such resolutions had been received, the dairymen were notified regarding the requirements which were not complied with in communications from this Department. Reinspections of certain of these supplies showed substantial compliance with the law.

In general, inspections made of dairy farms and milk plants in New Jersey showed that the requirements of this law placed little

hardship upon the operators of dairy farms and milk plants, with the exception of dairy farms located in certain sections of the State. This is attributed to inspections made and to educational advice given to dairymen and milk plant operators over a long period of years by agents of this Department.

The Department granted 137 permits to ship milk, cream or milk products into New Jersey from 319 milk plants which were supplied by 35,708 dairymen. Fourteen of the permits have been revoked because of violation of the requirements as contained in the act.

Physical Examinations of Dairy Cows—Under the provisions of Chapter 131 of the Laws of 1932, the reports of the annual physical examinations of the animals in herds used for the production of milk or cream intended for sale in this State are required to be filed at the milk plant to which the milk is delivered. These reports are being checked by the agents of this Department as inspections are made of the milk plants.

Physical Examinations of Employees of Milk Plants—Chapter 131 of the Laws of 1932 requires employees to be examined by a licensed physician at least annually and to submit such specimens of bodily discharges as the State or local board of health may require. The value of the laboratory examinations of bodily discharges from milk plant employees is probably equal to or greater than the physical examinations of such persons. Because of the practical difficulty in the cost of such laboratory examinations made in private laboratories, and because of the few laboratories equipped to conduct such examinations, this Department has not attempted to enforce this provision of the law during the year, but decided to postpone this work until the enlargement of the laboratory of this Department was completed. It is hoped that the laboratory of this Department will be in a position to offer to make these examinations for the employees of milk plants without cost to them during the coming year.

Collection of Milk, Cream and Milk Products—During the year 5,131 samples of milk and cream collected by the agents of the Bureau were examined chemically. None of these samples con-

tained 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 milk fat.

Non-Alcoholic Beverage and Bottled Water Plant Inspection—During the year 495 inspections were made of beverage and water bottling plants in this State and 91 samples of non-alcoholic beverages and bottled water were collected. In general, the plants were found to be operated under sanitary conditions. Emphasis has been placed upon the necessity of cleansing bottles and utensils thoroughly. Prosecutions have been ordered by the Department in cases where beverages were misbranded by statements on labels or caps that the beverages were prepared from fruit flavorings when in fact imitation flavorings had been used.

A careful inspection was made of each plant at which water was bottled for sale to determine whether or not the source of the water was protected adequately from contamination and also whether or not the methods employed in bottling the water were in accordance with the requirements of this State. Samples of each bottled water were collected and examined in the laboratory of this Department. Permits were granted only to those establishments which were operated in strict conformity with the requirements and in cases where the water was found to be free from contamination.

Slaughter-House Inspection—During the year 188 inspections have been made of slaughter-houses. These establishments were found to be operated in substantial compliance with the laws of this State.

During these investigations 543 beef carcasses, 413 calf carcasses and 134 hog carcasses were inspected and passed for food; 2 beef carcasses and 872 pounds of beef were condemned as unfit for food.

DEPARTMENT OF HEALTH

TABLE 1

Samples of Milk, Cream, Foods, Drugs, Cleansing Solutions, Collected for Analyses and their Classification

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Totals</i>
Milk and cream	4,867	264	5,131
Foods	1,027	96	1,123
Drugs	210	62	272
Cleansing solutions	5	...	5
Miscellaneous .....	...	3	3
	6,109	425	6,534

TABLE 2

Sanitary Inspections made of Establishments Where Foodstuffs are Produced, Prepared, Packed, Stored or Otherwise Handled

	<i>Inspections</i>
Dairy farms	4,045
Creameries	1,123
Milk depots	125
Ice cream factories	565
Cold storage warehouses	213
Slaughter-houses	188
Beverage and water bottling plants	495
Canning factories	32
Egg breaking establishments	19
Miscellaneous food establishments	41
	6,846

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 1932-1933

ARTICLE	July 1932	Aug. 1932	Sept. 1932	Oct. 1932	Nov. 1932	Dec. 1932	Jan. 1933	Feb. 1933	March 1933	April 1933	May 1933	June 1933
Eggs, cases	470,261	422,297	333,605	243,588	113,857	16,174	16,402	34,054	137,516	375,080	699,141	832,619
Eggs, broken lbs	13,793,943	13,166,791	12,522,230	11,839,421	10,227,275	9,782,975	9,080,865	9,451,217	8,534,012	8,592,753	8,501,228	8,951,401
Cheese, lbs.	7,544,018	8,164,929	8,061,132	7,793,549	7,858,586	7,362,701	7,396,581	6,616,964	6,092,884	5,404,067	5,998,186	8,156,272
Butter, lbs.	9,078,730	8,815,741	6,343,617	3,327,862	572,738	360,330	690,525	383,045	505,447	311,437	860,518	6,178,265
Poultry, lbs.	6,128,486	6,200,822	6,609,259	6,925,707	8,522,298	9,901,906	8,821,982	7,090,156	3,977,211	2,712,884	2,524,365	3,207,592
Fresh Meats, lbs.	3,845,848	3,590,017	3,061,992	2,985,025	2,704,265	2,490,611	2,614,983	3,002,575	1,810,004	3,092,881	2,804,885	3,328,668
Fresh Fish, lbs.	1,927,879	2,615,308	2,843,837	2,413,741	2,069,548	1,912,133	1,491,447	799,248	273,172	201,735	520,260	618,289
Milk and milk products, lbs.	932,576	656,933	731,803	581,954	412,248	297,616	220,350	122,076	77,108	7,972	62,189	208,316
Edible fats & oils, lbs.	1,824,201	835,442	982,048	343,425	1,026,388	653,857	755,137	387,007	306,827	1,002,467	960,105	3,152,568
Game, lbs.	5,395	5,395	5,407	5,122	5,433	3,992	1,190	1,163	750	746	.....	.....
Miscellaneous articles, pkgs.	79,159	135,976	494,995	756,543	1,080,571	851,470	588,972	502,612	424,570	249,134	154,145	103,440

Report of the Bureau of Bacteriology

For the Year Ending June 30, 1933

J. V. MULCAHY, CHIEF

The work of the Bureau of Bacteriology during the fiscal year ending June 30, 1933, has greatly increased over previous years, which shows that the physicians of the State appreciate the facilities of the laboratory and are submitting an increasing number of specimens to aid them in their diagnosis of suspected cases of communicable diseases.

The following table shows the number of specimens from various cases of communicable diseases examined during the last fiscal year, making a total number of specimens examined of 73,339.

TABLE I

Total Number of Specimens Examined During Fiscal Year
Ending June 30, 1933

Diphtheria	7,256
Tuberculosis	7,615
Typhoid fever	3,095
Typhoid bacilli (feces and urine)	4,036
Gonorrhoea	5,783
Syphilis	41,560
Miscellaneous specimens	3,994
Total	73,339

A comparison of this table with a similar table in last year's report shows an increase of 4,244 specimens. The number of specimens received for diphtheria examinations however is almost a thousand specimens less than last year. The examination of specimens from suspected cases of diphtheria is decreasing yearly and is a fine commentary on the efficacy of the diphtheria im-

munization that has been and is being carried on through the efforts of State and local health officials throughout the State.

It will be seen that 7,256 specimens were examined for the presence of diphtheria bacilli, many of these being taken from well persons on dairy premises, from new inmates in State institutions and from food handlers in camps and other groups to detect and control diphtheria carriers.

The largest increase in the number of specimens received and examined during the year was in the number of specimens of blood received for the Wassermann test. This test is being increasingly depended upon by physicians to assist them in the early diagnosis of cases of syphilis and also to eliminate the possibility of this disease being responsible for obscure cases of illness seen by the physician. Many other specimens of blood for syphilis are received to determine and follow the results of specific treatment for this disease so that the physician may be assured that sufficient treatment has been given.

Previous to June 15th of this year this work was done in a very small room under adverse working conditions. Due to the efforts of our Board and the generosity of the State House Commission it has been possible to equip a larger room for these examinations. This room is well adapted to carry on this work and the only thing that will prevent taking care of increased demands for this examination is lack of technical assistants.

This work is largely carried on by four technical workers and the preparation of over 41,500 blood specimens for examination and the examination of these specimens by the complicated test represents about the maximum number that can be handled by this force. To provide for the yearly increase in the number of these specimens and the increased demands from industrial plants and State institutions for Wassermann tests will require at least two additional technicians to assist with these examinations.

Kahn tests are also now done on all positive Wassermann specimens. This check on the results of the Wassermann test by running duplicate tests by the Kahn test we feel gives the physician additional information upon which to base his diagnosis, especially in obscure cases of illness that may not present any physical evidence of syphilis.

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During the latter part of the year we have been occupying our new rooms. The three rooms assigned to the Bureau of Bacteriology have been equipped and provide the additional space that has been much needed for several years. The new rooms are well lighted and the arrangement well adapted to facilitate handling the specimens for examination.

One room, as stated above, is devoted to the examination of blood specimens for syphilis. A larger room is used for the microscopical and cultural examination of specimens from suspected cases of communicable diseases. The third room is used for plating out feces and urine specimens from suspected and convalescent cases of typhoid fever and specimens from dairy employees and other food handlers to detect typhoid carriers.

We are much pleased with the equipment of these rooms. Ample bench and drawer space has been provided and the electrical, gas and water outlets are conveniently located for each technical worker.

TABLE II

Yearly Totals of Animals Examined for Rabies from 1924 to 1933, Inclusive

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Positive	125	160	202	164	93	106	96	80	177	130
Negative	79	116	145	132	116	115	121	114	123	121
Unsatisfactory..	23	18	25	26	19	22	11	8	27	21
Total	226	294	372	322	228	243	228	202	327	272

As will be seen from Table II the number of rabid dogs as determined by examinations made in this laboratory continues high, although less in number than the number found rabid in this laboratory during the previous year. This does not, however, give a true picture of the prevalence of this disease in this State, as many cases of rabies have occurred in the northern section of the State that are examined in municipal and county laboratories in that section of the State.

It will be seen from the table that 21 specimens were received unfit for examination, due to neglect to ice the animal's head when forwarding to the laboratory by express. When a person has

been bitten by a suspected rabid animal, delay due to shipment by express or spoilage of specimen in transit, may delay the treatment of the individual bitten. Unnecessary delay in the treatment of persons bitten by a rabid animal is to be avoided and the head of the animal should be brought promptly by messenger to the laboratory for examination. These specimens are examined upon the receipt of the specimen and a report can usually be given within an hour of its arrival.

Time consuming examinations have been made on various food products causing illness during the past year. Cases of illness with nausea, vomiting and diarrhea due to a batch of ice cream required extensive cultural and animal tests to determine the organisms responsible for the toxic products in this particular batch of ice cream.

Under unusual examinations may be listed such tests as foods of various kinds that have caused human sickness or are suspected to have caused sickness during this year; such as raw sausage, meat, cakes, eclairs, cream puffs, ice cream, etc. These examinations involve considerable time and work, as well as the use of a number of animals.

One of the most interesting cases, in spite of the continued publicity given out by the Department against the consumption of raw pork products, occurred in a family in Atlantic City in March. The suspected specimen was a sample of uncooked sausage prepared with spices and the raw pork from a hog raised and slaughtered by the household. The laboratory used the paraffin method of embedding, slicing and staining, and obtained a number of excellent slides showing the encysted trichina in great numbers in the muscle tissue. Such a heavily infected article of food would prove most dangerous to anyone so unfortunate as to consume it, resulting in severe sickness and sometimes death.

It will be seen from Table XII that 306 specimens were received during the year for evidence of *B. abortus* infection, and that 48 of these specimens gave a positive agglutination test on specimens of human blood for undulant fever.

The symptoms of this disease are so varied, indefinite and suggestive of many other diseases, particularly of typhoid fever,

malaria, tuberculosis and influenza that the physician is perhaps more dependent upon laboratory examination for the diagnosis of undulant fever than for any other disease.

Undulant fever is an infectious disease due to an infection with organisms of the abortus melitensis group transmitted by infected cows, goats, swine and possibly other animals. The chief source of infection is usually raw milk from infected cows and goats, but other cases have been found to be due to contact with infected animals either at the time of slaughtering or with discharges during parturition.

The laboratory diagnosis of undulant fever is made by the examination of the blood for agglutinating properties and this method has proven a valuable aid in the diagnosis of this disease. This is the most practical test but may be supplemented by cultivation of the organism from the blood stream. Special medium will be supplied upon request for the collection of blood for culture.

For the agglutination test a specimen of blood collected in the same manner as for a Wassermann test is necessary. Dried blood on paper or aluminum foil is not satisfactory for this examination.

A reaction obtained on a specimen of blood in a dilution of 1-80 or higher is evidence that the patient has undulant fever or has had such an infection in the past. It has been found, however, that occasionally a reaction will not be obtained in some cases of undulant fever though a blood culture may show evidence of infection.

During the year additional blood from recovered cases of poliomyelitis was collected and tests made on each lot by means of the Wassermann test before pooling the different lots. At the present time a large supply of this serum is on hand for distribution for the treatment of any cases of poliomyelitis that may occur during this year.

Smallpox vaccine virus, Schick test material, diphtheria toxoid and toxin-antitoxin, typhoid bacterin, scarlet fever toxin for Dick test and tetanus antitoxin are always carried in stock and supplied to physicians and health officials at a low cost.

For the use of the Bureau of Engineering and the Bureau of Chemistry in the examination of water supplies and swimming pool examinations, thousands of tubes of culture media have been prepared together with water collecting bottles and culture dishes.

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This work has kept the media force unusually busy with their other duties of preparing mailing cases for the collection of specimens for the use of physicians sending specimens from suspected cases of communicable diseases. These outfits are supplied to various repositories in all sections of the State for the convenience and use of physicians in their communities. These outfits are in some cases sent direct to the physicians who send many specimens to the laboratory.

The type of these special mailing cases is specified by the postal authorities and when the specimens sent in by the physicians are contained in the mailing cases supplied by the laboratory they are allowed in the mails with first class matter. Table XV shows that 78,912 of these outfits were assembled and shipped out for transmitting specimens for examination. These outfits after use are sterilized and reassembled for distribution.

The tabulations that follow show the various examinations made and the number of specimens examined in the laboratory, arranged and classified under the name of the disease for which they were examined.

Table XI shows the miscellaneous examinations made during the year and includes a large variety of specimens from many disease conditions.

TABLE III

Specimens Examined for Diphtheria Bacilli, Primary and Secondary, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	6	472	17	16	174	11	696
August	9	248	13	18	132	2	422
September	6	414	4	19	303	1	747
October	5	385	3	14	282	..	689
November	9	285	9	18	194	..	515
December	10	481	11	21	288	4	815
January	3	426	4	29	185	3	650
February	4	340	9	20	185	6	564
March	4	356	6	11	218	2	597
April	3	381	4	5	163	1	557
May	6	250	6	6	102	3	373
June	4	407	6	11	200	3	631
Total	69	4445	92	188	2426	36	7256

During the year twenty-two tests were made for the virulence of the diphtheria bacillus.

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TABLE IV

Specimens Examined for Tubercle Bacilli, Primary and Secondary, During
Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	50	270	3	55	179	..	557
August	46	220	2	54	119	1	442
September	39	257	5	91	218	2	612
October	47	261	..	71	175	2	556
November	44	247	2	57	150	2	502
December	37	266	5	53	188	5	554
January	57	306	2	102	306	4	777
February	46	333	5	75	239	6	704
March	39	288	2	86	214	6	635
April	61	272	3	116	216	3	671
May	60	265	6	95	292	4	722
June	57	362	3	144	317	..	883
Total	583	3347	38	999	2613	35	7615

TABLE V

Specimens Examined for Typhoid Fever Reaction, Primary and Secondary,
During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	10	222	16	..	17	..	265
August	9	166	5	7	18	1	206
September	23	165	13	6	16	2	225
October	18	110	8	5	9	1	151
November	12	94	2	6	8	..	122
December	9	298	4	3	11	..	325
January	13	601	22	4	41	1	682
February	3	214	4	4	30	..	255
March	4	138	4	8	28	4	186
April	1	134	4	2	25	..	166
May	13	101	12	6	21	3	156
June	12	178	8	8	147	3	356
Total	127	2421	102	59	371	15	3095

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TABLE VI

Specimens of Feces and Urine Examined for Typhoid Bacilli, Primary and Secondary, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	1	436	19	..	44	..	500
August	1	216	6	1	56	1	281
September	3	291	4	2	166	3	469
October	11	270	10	7	64	2	364
November	5	228	4	9	78	3	327
December	2	194	4	11	52	3	266
January	3	216	8	7	146	2	382
February	5	136	1	5	145	1	293
March	6	138	8	12	91	8	263
April .....	..	120	11	17	127	6	281
May	6	163	1	4	72	..	246
June	1	142	2	7	212	..	364
Total	44	2550	78	82	1253	29	4036

TABLE VII

Specimens Examined for Gonococci (pus smears), Primary and Secondary, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	85	228	8	11	63	3	398
August	103	260	14	16	87	5	485
September	93	239	7	17	93	4	453
October	80	245	9	19	83	2	438
November	80	215	13	17	59	2	386
December	64	237	7	10	75	9	402
January	79	232	5	22	177	2	567
February	61	272	8	33	126	6	506
March	63	273	5	19	200	7	567
April	83	240	8	9	121	4	465
May	100	304	6	26	149	9	593
June	77	289	..	17	139	1	523
Total	968	3084	89	216	1372	54	5783

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TABLE VIII

Miscellaneous Specimens Examined, Primary and Secondary, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary			Secondary			
	+	-	Uns.	+	-	Uns.	Total
July	87	180	9	7	30	1	294
August	68	186	6	18	38	..	316
September	69	258	9	12	51	1	400
October	61	239	5	10	77	2	394
November	82	158	4	20	78	2	344
December	83	145	1	20	50	1	300
January	61	151	3	20	35	..	270
February	66	141	3	16	27	..	253
March	81	187	4	19	56	..	347
April	79	181	2	8	30	1	301
May	77	212	4	28	57	1	379
June	80	223	8	22	63	..	396
Total	874	2261	58	200	592	9	3994

TABLE IX

Specimens of Blood and Spinal Fluid Examined for Syphilis (Complement Fixation Test), with Alcoholic Extract Beef Heart Antigen, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary							Secondary							
	4+	3+	2+	+	±	-	uns.	4+	3+	2+	+	±	-	Uns.	Total
July	140	15	19	12	22	2053	94	55	10	26	17	29	513	20	3025
August	164	21	25	16	33	2191	70	46	16	17	12	22	734	27	3394
September	184	24	25	17	45	2358	71	75	10	14	14	30	569	30	3486
October	100	14	14	15	24	2029	60	46	7	11	10	19	547	19	2915
November	99	10	11	19	30	2227	83	33	9	13	10	31	598	21	3194
December	96	16	17	25	24	2073	80	55	9	20	21	25	796	20	3279
January	146	20	21	14	21	2715	85	75	12	16	14	27	756	19	3941
February	115	14	29	22	16	2130	80	61	10	11	19	25	506	24	3062
March	126	19	20	25	26	2730	69	66	13	24	23	33	863	27	4054
April	72	19	22	14	24	2679	59	35	3	12	12	25	559	22	3557
May	87	11	15	14	19	2816	64	41	7	11	7	14	678	7	3791
June	104	21	25	23	35	2597	72	32	10	14	12	26	890	21	3882
Total	1433	204	243	216	319	28600	887	620	116	189	171	306	7999	257	41560

TABLE X

Specimens of Blood and Spinal Fluid Examined for Syphilis (Complement Fixation Test), with Cholesterinized Antigen, During Fiscal Year Ending June 30, 1933, by Months

MONTH	Primary							Secondary							Total
	4+	3+	2+	+	±	—	uns.	4+	3+	2+	+	±	—	Uns.	
July	224	8	6	29	34	1960	94	158	22	9	39	42	380	20	3025
August	273	22	2	20	17	2119	70	127	29	6	39	50	506	27	3394
September	318	17	9	32	50	2227	71	149	17	12	23	37	474	30	3466
October	183	13	5	13	25	1957	60	119	11	10	25	32	443	19	2915
November	177	19	8	11	22	2159	83	113	18	9	28	47	479	21	3194
December	197	14	4	25	22	1991	80	151	19	14	42	47	653	20	3279
January	256	17	1	21	26	2616	85	196	11	2	33	46	612	19	3941
February	220	12	4	16	20	2054	80	159	15	9	20	30	399	24	3002
March	259	14	3	21	15	2634	69	210	28	6	63	57	648	27	4054
April	166	22	2	18	20	2602	59	104	19	10	25	26	462	22	3557
May	161	15	4	19	17	2746	64	110	21	9	22	39	557	7	3791
June	243	10	1	21	26	2504	72	148	21	6	38	63	708	21	3882
Total	2677	183	49	246	294	27506	887	1744	231	102	397	516	6411	257	41560

TABLE XI

Miscellaneous Specimens Examined, Positive, Negative and Unsatisfactory, During Fiscal Year Ending June 30, 1933

<i>Specimen for</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Rabies	130	121	21
Bacterial infection (blood, body fluids, feces, milk, pus, sputum, urine, etc.)	661	246	10
B. tuberculosis (body fluids, feces, pus, urine, etc.)	8	115	..
B. typhosus (bile, blood and water)	1	16	..
Para-typhoid fever	2	1,027	9
B. para-typhosus (bile, feces, urine and water) ..	7	764	10
Gonococcus infection (urine) .....	..	5	..
Malarial parasite (blood) .....	..	35	2
Ophthalmia neonatorum	38	23	2
Pneumococci (sputum)	9	8	2
Poliomyelitis (spinal fluid)	2	3	..
Treponema pallida .....	..	2	..
Tularemia	3	13	..
Typhus fever (blood reaction for)	2	3	..
Undulant fever	56	241	9
Vincent's angina	150	196	..
Other unusual examinations	5	35	2
Total	1,074	2,853	67
Grand total			3,994

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TABLE XII

Specimens Examined for Evidence of Brucella Infection, During Fiscal Year
Ending June 30, 1933

	<i>Positive</i>	<i>Negative</i>	<i>Unsatis- factory</i>
Undulant fever			
Agglutination test of human blood	48	230	9
Human blood (culture for type of organism) ..	..	3	..
Cow's blood (culture for type of organism)	2	2	..
Feces (culture for type of organism) .....	..	1	..
Agglutination test of cow's milk	6	5	..
	56	241	9
Total			
Grand total			306

TABLE XIII

Rabies Specimens, Species of Animals, Positive, Negative and Unsatisfactory,
Examined during Fiscal Year Ending June 30, 1933

Dogs—Positive, 128; Negative, 113; Unsatisfactory, 18.

Cats—Negative, 6; Unsatisfactory, 3.

Cows—Positive, 2; Negative, 1.

Prairie Wolves—Negative, 1.

TABLE XIV

Municipalities, Arranged by Counties, from Which Rabid Animals Were
Received During Fiscal Year Ending June 30, 1933

Atlantic County—Atlantic City, 1.

Bergen County—Garfield, 1; Tenafly, 3.

Camden County—Brooklawn, 1; Camden, 1.

Essex County—Livingston, 3; Orange, 5.

Hunterdon County—Frenchtown, 1; Pittstown, 1.

Mercer County—Princeton, 9.

Middlesex County—Carteret, 1; East Brunswick, 4; Highland Park, 3;

Metuchen, 3; Milltown, 1; New Brunswick, 16; Parlin, 1; Perth Amboy, 5;

South Amboy, 1; Woodbridge, 1.

Morris County—Boonton, 2; Butler, 1; Dover, 10; Montville, 1; Morristown,

10; Netcong, 2; Parsippany, 1; Wharton, 2; Whippany, 2.

Passaic County—Bloomingdale, 2; Clifton, 1; Haledon, 1; Mountainview, 4;

Passaic, 1; Paterson, 1.

Somerset County—Belle Mead, 1; Bernardsville, 3; Somerville, 2; South Bound

Brook, 1.

Sussex County—Newton, 6; Ogdensburg, 1.

Union County—Hillside, 1; Plainfield, 1; Rahway, 2; Westfield, 4.

Warren County—Allamuchy, 1; Hackettstown, 2; Phillipsburg, 1; Washing-
ton, 1.

DEPARTMENT OF HEALTH

TABLE XV

Mailing Cases for the Collection and Transmission of Specimens Supplied to
Physicians and Repositories Throughout the State
During Fiscal Year Ending June 30, 1933

Diphtheria—Regular mailing cases	8,399	
Serum tubes and swabs	25	
Extra swabs	2,593	
		<hr/>
		11,017
Tuberculosis mailing cases		9,751
Typhoid fever mailing cases		3,852
Gonorrhoea mailing cases		7,793
Malaria mailing vases		284
Feces and urine mailing cases		5,112
Syphilis mailing cases		43,601
Ophthalmia neonatorum cases		61
		<hr/>
Total		81,477

Report of the Bureau of Chemistry

For the Year Ending June 30, 1933

J. E. BACON, CHIEF

Samples of foods, drugs, water, sewage and trade wastes collected by the Department's representatives in the enforcement of the Public Health Laws are examined by the Bureau of Chemistry. The facilities of the laboratory are also extended to local boards of health, State Department of Public Instruction, State Purchasing Agent, New Jersey State Police, State Department of Institutions and Agencies, State Board of Pharmacy and the Fish and Game Commission. Analyses are made of various samples of food and supplies purchased under specifications for institutional use, drugs collected by the inspectors of the State Board of Pharmacy, rural school waters submitted by local boards of education, water supplies from camps maintained by benevolent associations and other miscellaneous samples.

In addition this Bureau has supervision over the Department's laboratory boat "Inspector," which is used for field investigations in connection with the sanitary control of the shellfish industry. In cooperation with local health authorities condemned waters are patrolled and frequently opened to permit transplanted shellfish.

There was an increase of 57.5 per cent. in the number of samples analyzed in the water laboratory and the increased work was handled by shifting the personnel between the two laboratories, by 200 man days overtime and by the employment of a temporary man for a period of three months. It is contemplated there will be a further expansion in the work of this Bureau as the alterations to the chemical laboratory recently completed provide additional space and facilities to meet the increasing

demands from the different Bureaus of the Department. The need for an additional full time chemist is apparent.

Over 18,000 samples of food, drugs, water, shellfish and miscellaneous preparations have been examined during the past year. The tabulations indicate the variety of products analyzed.

TABLE SHOWING NUMBER AND CHARACTER OF SAMPLES EXAMINED IN THE
FOOD AND DRUG LABORATORY DURING THE FISCAL YEAR
ENDING JUNE 30, 1933

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>
Milk	4,122	208	4,330
Milk, bacteriological	29	...	29
Milk, chocolate	3	1	4
Cream	633	3	636
Sour cream	57	8	65
Ice cream	181	3	184
Human milk	4	...	4
Cheese	53	24	77
Butter	169	1	170
Soft drinks	70	3	73
Alcoholic beverages	52	8	60
Alcohol	14	...	14
Pork Sausage	162	24	186
Hamburg	123	...	123
Tomato products	109	...	109
Canned peas	56	...	56
Canned corn	2	...	2
Canned beets	2	...	2
Olive oil	55	3	58
Cottonseed and linseed oil	1	3	4
Shellfish	40	...	40
Waters, shellfish areas	835	...	835
Fruits for spray residue	5	...	5
Vegetables for spray residue	59	25	84
Relishes	37	2	39
Creamery wash waters	4	...	4
Bakery products	8	...	8
Miscellaneous	62	...	62
Total foods and miscellaneous	6,947	316	7,263

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	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>
Aspirin	31	2	33
Camphorated oil	77	8	85
Castile soap	23	15	38
Castor oil	9	...	9
Chloroform liniment	18	2	20
Citrate of magnesia	15	14	29
Cod liver oil	3	...	3
Hand lotions	3	...	3
Hydrogen peroxide	65	43	108
Lysol	33	...	33
Powder for alkaloids	5	...	5
Spirits nitre	17	13	30
Rhubarb and soda	42	2	44
Tincture iodine	252	2	254
Witch hazel	34	...	34
Miscellaneous	17	1	18
	<hr/>	<hr/>	<hr/>
Total drugs	644	102	746
Urinalysis	42	...	42
	<hr/>	<hr/>	<hr/>
Total food and drugs	7,633	418	8,051

SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY FROM JULY 1, 1932, TO JUNE 30, 1933

MONTH	Private Water Supplies													Totals															
	Public Water Supplies	Collected by Local Boards of Health	Collected by Employees	U. S. Government	Pay Samples	Camp Supplies	Private Samples	Private Institutions	County Institutions	State Institutions	State Park Commission	County Park Commission	School Supplies																
1932	236	18	9	1	6	32	2	4	18	3	8	2	6	1	10	2	6	6	1	1	19	43	28	138	62	5	2	148	717
July	202	33	6	1	4	10	3	4	13	5	10	2	6	3	11	1	6	6	3	1	11	43	28	138	67	3	2	309	1249
August	297	34	1	1	8	1	2	4	4	1	1	1	8	1	8	1	1	8	1	1	4	114	110	50	44	6	10	592	1592
September	317	29	3	3	3	3	3	7	14	12	1	9	10	6	4	4	3	11	6	5	59	50	30	38	1	7	555	1555	
October	171	30	3	4	4	3	7	6	12	12	1	122	10	1	4	6	6	18	3	1	18	41	33	33	22	5	51	459	1249
November	222	14	5	1	1	1	1	6	18	18	1	154	3	1	1	6	6	18	1	1	18	41	33	33	22	5	51	459	1249
December	222	14	5	1	1	1	1	6	18	18	1	154	3	1	1	6	6	18	1	1	18	41	33	33	22	5	51	459	1249
1933	209	12	1	3	3	2	2	13	9	7	142	6	7	1	11	24	32	38	26	2	2	28	116	60	1	2	63	589	
January	201	8	1	2	2	2	2	10	2	2	188	7	1	1	11	33	28	116	60	1	2	28	116	60	1	2	63	640	
February	269	14	2	2	2	2	2	8	8	8	20	7	1	1	8	33	40	33	22	3	3	40	33	37	5	3	42	599	
March	269	13	2	2	2	2	2	10	8	8	20	7	1	1	8	33	40	33	22	3	3	40	33	37	5	3	42	599	
April	321	40	6	4	4	11	11	8	18	9	7	9	1	1	11	11	11	9	1	1	11	11	11	11	11	11	11	1072	1072
May	321	40	6	4	4	11	11	8	18	9	7	9	1	1	11	11	11	9	1	1	11	11	11	11	11	11	11	1072	1072
June	198	12	1	4	4	11	11	7	5	8	7	6	9	1	13	49	53	201	231	20	1	135	135	135	135	135	135	1052	1052
Totals	2898	284	53	1	57	60	19	77	127	19	18	630	80	26	32	179	133	526	1439	960	52	11	772	112	8587	8587	8587	8587	

The marked improvement in the bacterial quality of the condemned waters of Sandy Hook Bay when investigated in the summer of 1931 warranted a resurvey last summer. This was done during July and August in cooperation with the United States Public Health Service as the New Jersey shellfish shipper's certificates of all persons doing interstate business must be approved by that Department.

As past investigations indicated these waters became progressively more polluted toward the State line and the Atlantic Ocean, the logical explanation for the improvement in the bacterial quality of these waters is the nearly completed two-mile long jetty being constructed at Rockaway Point, Long Island. This would have a tendency to increase the velocity of flow in the channels, thereby causing the New York and Passaic Valley sewage to be carried further out in the ocean on the ebb tide with a greater dilution when returned to Sandy Hook Bay on the flood tide.

The following tabulation gives a comparison of results of analyses of samples of water collected from the outer area of Sandy Hook Bay obtained during past investigations and shows the improvement in bacterial quality of these waters

<i>Date</i>	<i>Number collected</i>	<i>Number showing B. Coli percentage</i>		
		<i>1.0 cc.</i>	<i>0.1 cc.</i>	<i>0.01 cc.</i>
July, 1928	240	222=93 %	163=68 %	55=30 % (180 planted)
July, 1931	280	166=59.3%	45=16 %	8= 4 % (200 planted)
July-August, 1932	448	108=24.1%	30= 6.7%	4= 0.9%

In view of these results the Department modified its condemnation order affecting outer Sandy Hook Bay to permit the gathering of shellfish from those portions of Raritan and Sandy Hook Bay designated as follows:

The area bounded by a line drawn in a northerly direction from Point Comfort Beacon through channel buoy N 6 to the State line, and thence along the State line in a northeasterly direction to a point where said State line is intersected by a line drawn from Sandy Hook Point in a northwesterly direction through channel buoy N 24, excluding however,

all foreshores one-quarter mile from the mainland between Point Comfort and Highlands, New Jersey, also excluding the area bounded by a half circle having a radius of one mile from the Atlantic Highlands steamboat pier.

Following are tabulations of results of bacteriological analyses of samples from other parts of Sandy Hook Bay:

APPROVED WATERS, "INNER AREA"

Number of samples collected	320
Number showing B. coli in 1.0 cc.	11= 3.4%
Number showing B. coli in 0.1 cc.	2= 0.6%
Number showing B. coli in 0.01 cc.	0

APPROVED WATERS, "HIGHLANDS AREA"

Number of samples collected	55
Number showing B. coli in 1.0 cc.	11=20 %
Number showing B. coli in 0.1 cc.	3= 5.5%
Number showing B. coli in 0.01 cc.	0

Representatives of the United States Public Health Service obtained confiscated tanks, piping, pumps and other equipment from the Federal prohibition authorities and an experimental set up for the purification of soft clams was installed at Highlands, New Jersey. In cooperation with the Public Health Service experimental runs were conducted, whereby soft clams were placed in tanks ashore and allowed to drink river water, purified by chlorination, for varying periods of time. The results of the investigation, while encouraging, were not such that this method of treatment could be advocated with the assurance that high scores of the shucked clams would be eliminated. It is possible that changes in the mechanical set up might solve the problem.

The shellfish supervision at Bivalve and Maurice River has been carried on as in the past, in that a major portion of the time during the oyster season the Department's boat was located in these waters and the personnel were occupied in making bacteriological examinations of shellfish and the waters of Maurice River and Maurice River Cove. Considerable time was spent by the bacteriologist in checking up on sanitary conditions existing in the

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shucking houses and in the settlement at Shellpile, where most of the colored population reside. Under the direction of the Oyster Growers and Dealers Association a clinic for the treatment of venereal disease was established at Port Norris, New Jersey.

Following are tabulations of bacteriological results obtained on water and oyster samples taken from various shellfish areas of the State:

SCORES OF SALT OYSTERS TAKEN FROM DELAWARE BAY

Number of samples collected	40
Number scoring 0	24=60 %
Number scoring 1-5	12=30 %
Number scoring 6-50	4=10 %
Number scoring over 50	0

SCORES OF STORED OYSTERS TAKEN FROM MAURICE RIVER

Number of samples collected	53
Number scoring 0	0
Number scoring 1-5	25=47.2%
Number scoring 14-50	25=47.2%
Number scoring over 50	3=6.6%

SCORES OF SHUCKED OYSTERS, TAKEN AT SHUCKING HOUSES

Number of samples collected	35
Number scoring 0	4=11.4%
Number scoring 1-5	11=31.4%
Number scoring 14-50	11=31.4%
Number scoring over 50	9=25.8%

SCORES OF WATER SAMPLES

Samples Taken From Greenbank Reach, Maurice River

Number of samples collected	130
Number scoring 0	18=13.8%
Number scoring 1-5	87=66.9%
Number scoring 14-50	21=16.2%
Number scoring over 50	4= 3.1%

DEPARTMENT OF HEALTH

BACTERIOLOGICAL ANALYSES OF WATER SAMPLES

Maurice River Section

	Ebb Tide	Flood Tide
Section 1. Upper end of Long Reach to Leesburg—		
Number samples collected	70	70
Number showing B. coli in 1.0 cc.	65=92.8%	54=77.1%
Number showing B. coli in 0.1 cc.	28=40 %	21=30 %
Number showing B. coli in 0.01 cc.	10=14.2%	7=10 %
Section 2. Leesburg to Brickboro sand wharf—		
Number samples collected	70	70
Number showing B. coli in 1.0 cc.	67=95.7%	54=77.1%
Number showing B. coli in 0.1 cc.	35=50 %	24=34.3%
Number showing B. coli in 0.01 cc.	3= 4.7%	4= 5.7%
Section 3. Brickboro sand wharf to upper sand wharf—		
Number samples collected	70	70
Number showing B. coli in 1.0 cc.	64=91.4%	52=74.3%
Number showing B. coli in 0.1 cc.	27=38.5%	9=12.9%
Number showing B. coli in 0.01 cc.	5= 7.1%	2= 2.9%
Section 4. Upper sand wharf to Millville Bridge—		
Number samples collected	70	70
Number showing B. coli in 1.0 cc.	43=61.4%	43=61.4%
Number showing B. coli in 0.1 cc.	17=24.3%	13=18.6%
Number showing B. coli in 0.01 cc.	1= 1.4%	1= 1.4%

Delaware Bay

Over leased oyster grounds—		
Number samples collected		60
Number showing B. coli in 10.0 cc.		3= 5 %
Number showing B. coli in 1.0 cc.		0

Cape May Section

Jarvis Sound—Number water samples collected	20
Number showing B. coli in 10.0 cc.	11=55 %
Number showing B. coli in 1.0 cc.	0
Number showing B. coli in 0.1 cc.	0

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Great Channel—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	4=20	%
Number showing B. coli in 1.0 cc.	5=25	%
Number showing B. coli in 0.1 cc.	0	
Great Sound—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	10=50	%
Number showing B. coli in 1.0 cc.	4=20	%
Number showing B. coli in 0.1 cc.	1= 5	%
Main Channel—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	12=60	%
Number showing B. coli in 1.0 cc.	4=20	%
Number showing B. coli in 0.1 cc.	0	
Ludlam Bay—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	10=50	%
Number showing B. coli in 1.0 cc.	3=15	%
Number showing B. coli in 0.1 cc.	0	
Pecks Bay—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	14=70	%
Number showing B. coli in 1.0 cc.	5=25	%
Number showing B. coli in 0.1 cc.	0	

Atlantic City Section

Reeds Bay—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	7=35	%
Number showing B. coli in 1.0 cc.	3=15	%
Number showing B. coli in 0.1 cc.	2=10	%
Grassy Bay—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	10=50	%
Number showing B. coli in 1.0 cc.	3=15	%
Number showing B. coli in 0.1 cc.	3=15	%
Little Bay—Number water samples collected	20	
Number showing B. coli in 10.0 cc.	2=10	%
Number showing B. coli in 1.0 cc.	2=10	%
Number showing B. coli in 0.1 cc.	0	

Great Bay Section

Great Bay—Number water samples collected	40	
Number showing B. coli in 10.0 cc.	3= 7.5%	
Number showing B. coli in 1.0 cc.	0	

Little Egg Harbor Bay—Number water samples collected	10	
Number showing B. coli in 10.0 cc.	1=10	%
Number showing B. coli in 1.0 cc.	0	
Tuckerton Creek—Number water samples collected	20	
Number showing B. coli in 1.0 cc.	19=95	%
Number showing B. coli in 0.1 cc.	13=65	%
Number showing B. coli in .01 cc.	5=25	%

Barnegat Bay Section

Barnegat Bay, from Bay Head Yacht Club dock to Swan Point—		
Number water samples collected	10	
Number showing B. coli in 10.0 cc.	10=100	%
Number showing B. coli in 1.0 cc.	6= 60	%
Number showing B. coli in 0.1 cc.	1= 10	%
Barnegat Bay, from Swan Point to Coates Point (Toms River)—		
Number water samples collected	10	
Number showing B. coli in 10.0 cc.	7= 70	%
Number showing B. coli in 1.0 cc.	2= 20	%
Number showing B. coli in 0.1 cc.	0	
Barnegat Bay, from Coates Point to point opposite Cedar Creek Coast Guard Station—		
Number water samples collected	10	
Number showing B. coli in 10.0 cc.	5= 50	%
Number showing B. coli in 1.0 cc.	3= 30	%
Number showing B. coli in 0.1 cc.	0	
Barnegat Bay, from point opposite Cedar Creek Coast Guard Station to Double Creek (Barnegat)—		
Number water samples collected	10	
Number showing B. coli in 10.0 cc.	7= 70	%
Number showing B. coli in 1.0 cc.	2= 20	%
Number showing B. coli in 0.1 cc.	1= 10	%
Barnegat Bay, from Double Creek to Pettit Island—		
Number water samples collected	10	
Number showing B. coli in 10.0 cc.	8= 80	%
Number showing B. coli in 1.0 cc.	5= 50	%
Number showing B. coli in 0.1 cc.	0	

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Barnegat Bay, from Pettit Island to Popular Point—

Number water samples collected	10	
Number showing B. coli in 10.0 cc.	10=100	%
Number showing B. coli in 1.0 cc.	7=70	%
Number showing B. coli in 0.1 cc.	2=20	%

Barnegat Bay, from Popular Point to Long Point—

Number water samples collected	10	
Number showing B. coli in 10.0 cc.	5=50	%
Number showing B. coli in 1.0 cc.	1=10	%

Barnegat Bay, from Long Point across oyster beds to mouth of Tuckerton Creek—

Number water samples collected	10	
Number showing B. coli in 10.0 cc.	0	
Number showing B. coli in 0.1 cc.	0	

Barnegat Bay, from mouth of Tuckerton Creek along Staked Channel to Parker's Island—

Number water samples collected	10	
Number showing B. coli in 10.0 cc.	6=60	%
Number showing B. coli in 1.0 cc.	2=20	%
Number showing B. coli in 0.1 cc.	1=10	%

Manasquan River, from Highway Bridge to canal entrance—

Number water samples collected	5	
Number showing B. coli in 10.0 cc.	5=100	%
Number showing B. coli in 1.0 cc.	3=60	%
Number showing B. coli in 0.1 cc.	1=20	%

Manasquan Canal—

Number water samples collected	15	
Number showing B. coli in 10.0 cc.	15=100	%
Number showing B. coli in 1.0 cc.	13=86.7	%
Number showing B. coli in 0.1 cc.	12=80	%

Report of the Bureau of Child Hygiene

For the Calendar Year 1932

JULIUS LEVY, M. D., CONSULTANT

INFANT MORTALITY

We are very happy to be able to report for 1932 for New Jersey the lowest infant mortality that has ever been reported for the State. This rate for 1932 was 50, six points lower than the 1931 rate and the lowest in the history of the State. In the presence of the serious depression, this is naturally a source of great gratification.

The highest infant mortality rate for any county was 84. Only 3 had a rate over 70 and 8 with a rate less than 50.

Salem County had the highest rate, 84. Cape May was lowest with 36. These are sparsely populated counties and two or three deaths would make considerable difference in their rates. Low rates for the larger counties were found in Bergen and Essex, 40 and 41 respectively.

Among the largest cities in the State, those with more than 1,000 births, Newark had the lowest rate 44 and Camden City had the highest rate 72.

Among the cities with a population between 50,000 and 100,000, Irvington had the lowest rate, 35 and Atlantic City was again high with 89.

West New York with a rate of 17 was again low among the cities with a population between 25,000 and 50,000. Perth Amboy with a rate of 74 was high.

The lowest rate for cities with a population between 10,000 and 25,000 was 22 for Cliffside Park. Pleasantville had the highest rate, 91.

A comparison with neighboring States places New Jersey at the head of the list with the lowest infant mortality rate among the eastern States.

New Jersey	50	Pennsylvania	59
Connecticut	50.9	Vermont	62.9
New York	52.8	Maine	63.5
Massachusetts	53.1	Delaware	68.5
Rhode Island	57.3	Maryland	69.5
New Hampshire	58.6		

Recent surveys and our own experience seem to justify the view point that the health and lives of infants depend, above all things, upon the efficiency of the mothers. The educational work that has been carried on for the past 15 years has undoubtedly contributed very largely to this final result in the State of New Jersey.

MATERNAL MORTALITY

The maternal mortality rate 5.7 shows a slight decrease over 1931. However, the maternal rate varies but little from year to year.

NEO-NATAL MORTALITY

A slight decrease has occurred in the deaths under one month as well as the stillbirth rate. Twenty-nine, the neo-natal rate, was the lowest in the history of the State. The stillbirth rate of 38 was the same as 1930.

STATISTICAL SUMMARY

The following rates are per 1,000 live births for the State:

Deaths under one year	50
Deaths under one month	29
Stillbirths	38
Puerperal deaths	5.7

One hundred and forty-eight nurses supervised 9,997 expectant mothers, 24,588 babies, 24,969 preschool children and 127,727 school children.

- 16 nurses were paid by the State Department of Health
- 116 nurses were paid by the local communities
- 16 nurses were paid partly by the State and partly by the community in which they worked.

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Four hundred and eighty-one communities carried on the State Child Hygiene Program under State supervision.

One hundred and fifty baby keep-well stations were conducted weekly where mothers could take their babies and preschool children.

Nine district supervisors supervised 362 of the midwives of the State.

Three communities assumed part of the salary of the nurse during the year. The State re-assumed the salary of one nurse and part of the salary of another due to financial difficulties in their communities.

There were 61,215 births in 1932, a 4 per cent. drop in the number of births.

Visits made by nurses	329,716
To expectant mothers	28,740
To babies	133,531
To preschool children	106,139
To school children	61,306
Visits to Baby Keep-well Stations	109,067
By babies	82,189
By preschool children	26,878
Prenatal Advice (expectant mother)—	
Supervised prenatal cases	9,997
Address changed before delivery	303
Pregnancies ended	4,207
Live births	4,090
Stillbirths	75
Miscarriages	42
Maternal deaths	18
Attendants at births—	
Doctor or hospital	3,497
Midwife	693
No attendant	17
Infant care—	
Babies supervised	24,588
Preschool care—	
Children supervised	24,969
New cases	11,543
Illnesses and defects (not including school child)—	
Detected	7,068
Corrected	4,358
Contagious diseases—	
Suspected cases discovered	1,850

Unsanitary conditions discovered	657
Eye smears taken	32
Suspected tuberculosis cases referred	750
Assisted with:	
Toxin Anti-toxin (not including school child)	4,324
Vaccinations	529
Attendance at Little Mother League	148
Unreported births discovered	41
School children supervised	127,727
Inspections (general, classroom, annual, assisting doctor or nurses alone)	1,238,285
Defects detected	125,544
Defects corrected	47,587
Illnesses detected	3,674
Illnesses corrected	2,341
Pupils excluded	14,721
Assisted with:	
Nose and throat cultures for diphtheria	394
Toxin Anti-toxin	6,134

EXTENSION AND RETENTION OF CHILD HYGIENE WORK

On account of the serious financial condition in which many communities have found themselves during the past two years, it was naturally expected that a certain number would find it impossible to continue the salaries of Child Hygiene nurses and for any new communities to take over such salaries after demonstration.

We are able to report that on July 1, 1933, there are 357 communities paying salaries of Child Hygiene nurses. While some assistance was requested during the year, all but one of the communities so assisted, have managed to re-assume the salaries of the Child Hygiene nurses for the coming year.

There are now 146 Child Hygiene nurses under the supervision of the Bureau of Child Hygiene. This is only one less than in July, 1932. Of this total, 10 are paid entirely by the State, 118 by the community and 18 partly by the State and partly by the community. This result can be ascribed very largely to the thorough and devoted work of the field staff. The contribution in salaries for Child Hygiene work by local communities represents about \$210,000 a year.

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CONFERENCES

During the past year, conferences were seriously curtailed in order to effect necessary economies. Instead of holding State conferences, the Department held only regional conferences. There were two regional conferences for nurses and one for midwives.

In addition to taking up the usual Child Hygiene problems in the care and management of infants and children, special emphasis was placed upon the problems that are now coming up under the general title of mental hygiene. The staff of 146 nurses has a great opportunity to bring to the mothers a better understanding of their own and their children's problems from a psychiatric view point and it is our hope, through discussion and instruction, to enable the nurses to carry on this work in addition to the usual Child Hygiene work.

OPHTHALMIA

There has been a marked decrease in the number of cases of ophthalmia neonatorum. This is clearly evidenced by the fact that 148 Child Hygiene nurses, who in the course of the year visited some 25,000 infants, found only five cases of positive ophthalmia neonatorum. The increase in hospitalization, the application of silver nitrate by midwives and general improvement in hygiene and sanitation have undoubtedly contributed to the result.

It appears that ophthalmia neonatorum, as a cause of blindness, will be practically eliminated from New Jersey. In past years, it has been held that as much as 70 per cent. of blindness was due to this one cause alone.

AUDIOMETER

Late in 1932, the Department purchased an audiometer for use in the schools that were co-operating with our Bureau. An arrangement was made to rent the audiometer to boards of education at the rate of \$5.00 a day. The proper carrying out of this delicate test for the detection of defective hearing requires care-

ful supervision. The work was done under the direction of the district supervisor with the assistance of the local nurse. Up to date, this instrument has been used in all the counties in which the Child Hygiene supervision is carried on and has been applied to some 25,600 children.

Many serious cases of defective hearing have been discovered that have been previously overlooked. As a result, many conditions that contributed to the defective hearing have been corrected and children, who were presenting serious problems in scholarship and behavior, have been given an opportunity for normal development.

During the coming year, it is proposed to make this audiometer available to all the schools on the same rental basis. By this method, the State Department of Health has made available an important instrument without cost to the State.

BOARDING HOMES FOR CHILDREN

The licensing of boarding homes in New Jersey has passed through several stages. Prior to 1915, no homes were licensed, then a few municipalities passed ordinances.

In 1918, the State Department of Health passed a general ordinance requiring all homes to be licensed. An amendment was added in 1930 to have this ordinance conform more to the general formula of the State Sanitary Code requiring homes to be licensed by local health officers.

During the past year, there have been a number of conferences with the representatives of the Department of Institutions and Agencies and the State Board of Children's Guardians to effect a plan of cooperation that would enable the health officers to carry out the provisions of the ordinance in close cooperation with the State Board of Children's Guardians. A plan for cooperation was submitted to the State health officers, which after careful consideration by a special committee, was approved.

On account of certain questions of practice in carrying out the plan of cooperation, it has been suggested that the plan of cooperation be tried first in one or two communities and, as a result of that experience, the plan be put in practice for the entire State.

TOXIN ANTI-TOXIN

The Child Hygiene nurses have cooperated with the local health departments, the State Health Department and private physicians with the immunization of children. Great progress has been made in having infants under two years of age immunized. It is generally conceded that this is the group where immunization will yield the best results.

RELIEF PROBLEMS

Probably no group of workers in the State have been more conscious of the great problems that have confronted families, on account of the depression, than the Child Hygiene nurses. Their daily contact with families, in which there are infants and young children, has made them keenly aware of the urgent need for relief and has enabled them to assist thousands of families by cooperating with the various relief agencies. In many counties the nurses have been acting as field agents and as investigators for local agencies.

During this past year, the nurses have been instructed to place particular emphasis upon helping the mothers in the careful selections of food stuffs and their proper preparation. In this way, even though the relief funds were very limited, we have prevented the development of malnutrition.

MIDWIFERY

In 1932 there were 429 licensed registered midwives in the State of New Jersey. Of these 362, were under the supervision of the State Department of Health, 63 were under local supervision in Jersey City and 4 were from out of State. This was a decrease of one midwife since 1931.

Of the 362, 172 midwives, each delivered more than 12 cases a year; 133 midwives, each delivered less than 12 cases a year and 57 midwives did not deliver a single case during 1932. There was very little change in this respect.

UNLICENSED MIDWIVES

In 1932 two unlicensed midwives continued to practice after being prosecuted. They were located in rural districts where doctors or licensed midwives could not expect to make a living.

It is gratifying to find that despite trying economic conditions, no new unlicensed midwives came into existence during the year.

NUMBER OF CASES DELIVERED BY MIDWIVES

There was a decrease of 2,863 in the number of births for 1932. Of these 1,555 or 54 per cent. effected the cases delivered by midwives. Some of this was probably due to the fact that many midwives' patients were sent into hospitals by charity organizations.

The principal feature in regard to midwifery during the past year has been the continuous reduction of cases delivered by midwives. This fell in 1932 to 6,841 deliveries or 11 per cent. of the total.

When we started our work in 1919, midwives delivered 30,000 women or 42.2 per cent. of the total. It is interesting to note that in certain communities and counties, midwives still deliver the greater number of total births.

Garfield	34%	South River	57%
Carteret	53%	Perth Amboy	42%

SUPERVISION

The County Midwives' Associations held 94 meetings with an attendance of 1,552 during the year. In addition the annual conference was held in two sections of the State, namely: Newark and Trenton with an attendance of over 300.

The subjects for lectures and discussions were: "The Proper Care of the Premature Baby; The Proper Care of Lacerations; Emergency Relief Problems."

Special investigations were made of 23 cases. They were: Sepsis 1, Ophthalmia 1, Stillbirths 4, Infant Deaths 15 and others 2.

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The district supervisors actually attended 34 cases with midwives. These included labors and early postpartum cases.

PROSECUTIONS

During 1932 three midwives were referred to State Board of Medical Examiners for prosecution with the following results: one case was dismissed in the local court; one case is pending and the license of the third midwife was revoked. The complaints were:

Failure to call a physician on an abnormal case	2
For conviction for criminal abortion	1

This is the best record for a number of years.

PRENATAL CASES

The midwives under the supervision of the State Department of Health referred 2,297 or 33.6 of the total cases delivered by them for prenatal care. This was a slight decrease. These patients were referred to family physicians, to prenatal centres and prenatal clinics for physical examinations and prenatal care.

ABNORMAL CASES

Of the number of cases delivered by midwives, 479 or 7 per cent. of their total cases were reported as abnormal. Of this number, in 458 or 95.4 instances, family physicians were called in or the patients were sent to hospitals. Although the midwives delivered fewer cases in 1932, they referred a larger percentage of abnormal cases to physician or hospital. Abnormal cases reported by midwives include any deviation from the normal condition of pregnancy and labor.

ADVANCED COURSE

We have been able to conduct an Advanced Course for licensed midwives through the active cooperation of Dr. Cosgrove and the Margaret Hague Maternity Hospital, Jersey City. During

the past year, 32 midwives completed this course. This brings the total number of midwives, who have spent at least one month in the hospital for special instruction in advanced methods of midwifery, to 147.

When one considers the marked decrease in midwifery practice and the serious depression from which they suffered as acutely as any other group, all concerned can feel very proud of the fact that 147 midwives were willing to give up their time, at a considerable loss of income, to this work. This represents 40 per cent. of the total number of supervised midwives. It may be interesting to know that of this number, 36 were over 50 years of age.

It has been the custom to give certificates to midwives who completed the course but a pin of credit only to those midwives, who after one year of supervision, were found to be living up to the instructions they received in their course. One hundred and two or 70 per cent. of the midwives have received such pins of merit.

NINTH ANNUAL CONFERENCE

Because of economic conditions, the ninth annual conference of licensed supervised midwives of New Jersey was held in two sections in 1932. The first section was held in the Nurses' Home, Newark City Hospital. Midwives from the northern part of New Jersey were invited to this session which was half-day. The second section was held at the International Institute, Trenton. Midwives from the southern part of New Jersey were invited to this half-day session.

The speakers were: Dr. Earl Snavelly, Medical Director, Newark City Hospital; Dr. John F. Hagerty, President, State Medical Society; Dr. Lewis H. Loeser, Newark; Dr. S. A. Cosgrove, Medical Director, Margaret Hague Maternity Hospital, Jersey City; Miss Margaret MacNaughton, Member, State Board of Health; Dr. W. G. Schauffler, Chairman, Public Relations Committee, State Medical Society, Princeton; Dr. Hannah Beatty, Medical Director, Clinton Farms; Dr. J. Lynn Mahaffey, Director, State Department of Health.

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The program was devoted to "Mental Hygiene" or "How to Prepare a Patient Mentally for Pregnancy and Labor".

Six midwives from both the northern and southern parts of New Jersey gave demonstrations on "What I Do When I Visit an Expectant Mother".

MATERNITY HOMES

During the year 1932, 31 persons applied for licenses to conduct maternity homes. The results were:

Number of new homes licensed	2
Number of homes where license was renewed	22
Number of homes where license was rejected	3
Number of homes discontinued	1
Number of homes referred to Department of Institutions and Agencies ..	3

The homes were in charge of:

Graduate nurses	5
Practical nurses	24
Licensed, supervised midwives	2

There were 392 cases delivered in these maternity homes. Of these 378 were delivered by physicians and 14 were delivered by midwives. Last year 530 cases were delivered in maternity homes. Therefore, there is a large decrease this year.

UNMARRIED MOTHERS

During the year 1932, there were 1,297 reported illegitimate births. This was 2.1 per cent. of the total number of live births and a slight increase over 1931.

REPORTED ILLEGITIMATE BIRTHS FOR A FIVE-YEAR PERIOD

YEAR	Total Births	Total Illegitimate Births	Per Cent. Illegitimate Births	Illegitimate Births—Colored	Mothers Under 16 Years	Mothers 16 to 21 Years	Mothers 21 to 35 Years	Mothers Over 35 Years	Mothers' Age Not Given	REMARKS
1928.....	70,076	1,086	1.5	426 (39.2)	104	574	355	43	4	6 mothers had twins
1929.....	68,297	1,252	1.8	491 (39.2)	97	650	443	49	3	9 mothers had twins
1930.....	68,282	1,245	1.8	486 (39.)	96	681	416	45	3	4 mothers had twins
1931.....	64,078	1,260	1.9	468 (37.1)	94	676	444	41	0	3 mothers had twins 1 mother had triplets
1932.....	61,215	1,297	2.1	461 (35.8)	94	693	400	43	0	7 mothers had twins

It is interesting to note that there has not been any appreciable increase due to the depression and unemployment, while the percentage of unmarried mothers among the colored race has actually decreased.

Report of the Bureau of Venereal Disease Control

For the Year Ending June 30, 1933

WILLIAM SAMPSON, CHIEF

Probably more matters of importance affecting the control of the venereal diseases in the State of New Jersey have happened the last twelve months than in any other equivalent period since the Bureau was organized. Possibly the most important, because it has given the Bureau a solid legal background, has been the enactment of some amendments to the law enforcement law by the Legislature. These changes are treated more specifically later on.

The other matters referred to have been more subjective, dealing with the work of the personnel of the Bureau. These are discussed separately and it will not be necessary to outline them here. It is sufficient to say that the work has expanded steadily, and many of the accomplishments, or achievements, standing by themselves might even be considered spectacular.

There is more routine in connection with the treatment of patients than possibly any other phase of activity, and it is well to report upon the statistical data first.

CASES REPORTED

Number of cases of venereal disease reported to the State Department of Health, for the twelve months ending June 30, 1931, 1932, and 1933:

	1931	1932	1933
Chancroid	57	54	39
Gonorrhoea	4,175	4,088	3,734
Syphilis	7,591	7,911	7,007
	<hr/>	<hr/>	<hr/>
Total	11,823	12,053	10,780

The table below gives the reported cases in New Jersey by county, disease and sex for the calendar year of 1932, together with the yearly rate per thousand :

County	Gonorrhoea		Syphilis		Chancroid		Total	Popu- lation	Rate Per M
	M	F	M	F	M	F			
Atlantic	305	25	294	220	1	0	845	133,803	6.315
Bergen	93	40	224	190	0	0	547	398,842	1.371
Burlington ..	36	2	71	67	0	0	176	96,124	1.831
Camden	203	72	293	287	2	0	857	265,879	3.223
Cape May ...	19	11	19	9	0	0	58	31,687	1.830
Cumberland .	67	17	118	98	3	0	303	71,771	4.222
Essex	1,545	267	1,628	1,420	38	3	4,901	873,338	5.612
Gloucester ...	28	6	28	23	0	0	85	75,759	1.122
Hudson	48	10	64	35	1	0	*158	704,246	.224
Hunterdon ..	22	6	30	36	2	0	96	35,133	2.732
Mercer	288	61	411	237	2	0	999	193,128	5.173
Middlesex ...	48	3	83	64	0	0	198	223,156	.887
Monmouth ..	60	31	194	191	0	2	478	156,490	3.055
Morris	52	17	30	31	0	0	130	116,536	1.116
Ocean	27	6	20	18	3	0	74	35,465	2.087
Passaic	207	76	180	181	4	0	648	311,559	2.080
Salem	32	8	51	29	2	0	122	36,892	3.307
Somerset	35	7	30	17	1	0	90	68,894	1.306
Sussex	9	1	13	4	0	0	27	28,471	.948
Union	65	16	99	104	0	1	285	328,269	.868
Warren	5	1	17	10	0	0	33	50,255	.657
Total	3,194	683	3,897	3,271	59	6	11,110	4,235,698	2.623

* Does not include cases from Hudson County Laboratory.

This contrasts with 11,786 cases for the calendar year 1931, when the annual rate per thousand was 2.840 as against 2.623 for 1932. The customary indifference to reporting cases of gonorrhoea is again exhibited and this again is partially traceable to the ignorance of those infected as to the seriousness of the disease. They do not take their cases to physicians but continue to regard gonorrhoea as nothing worse than a cold. It is possible that this belief may never be wholly eradicated.

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CLINIC PATIENTS AND TREATMENTS FOR FISCAL YEARS
1931, 1932 AND 1933

<i>Patients</i>	1931	1932	1933
Syphilis	4,153	4,399	4,810
Gonorrhoea	2,242	2,383	2,638
Total	6,395	6,782	7,448
 <i>Treatments</i>			
Syphilis	108,887	161,231	187,654
Gonorrhoea	27,109	35,841	49,460
Total	135,996	197,072	237,114

This shows that there has been a steady increase the last three years in the number of clinic patients, both in syphilis and in gonorrhoea, in the twelve months just passed. Sixty-seven per cent. of the patients were being treated in clinics, as against 57 per cent. the preceding year. Thirty-three per cent. were private patients, as against 43 per cent. the year before, and it will be interesting to note if the trend changes when economical conditions are reversed.

ANALYSIS OF SOURCES OF INFECTION

The following table classifies the sources of infection that were reported to the State Department of Health for the fiscal years ending June 30, 1932, and June 30, 1933:

	1932	1933
Professional prostitutes and brothels	40	22
Clandestine prostitutes	229	222
Husband or wife	185	170
Congenital	136	376
Miscellaneous .....	...	7
Total	590	797

A supply of neoarsphenamine and bismuth subsalicylate, together with distilled water, was sent to 255 physicians in the State who furnished the names and addresses of the sources of syphilitic infections.

ACTION TAKEN ON SUSPECTED SOURCES

During the past fiscal year 205 cases of persons reported as being the probable sources of infection have been referred to local health executives for investigation as contrasted with 231 the preceding year. There is appended an analysis as to the manner in which these sources were handled by local health executives:

	1932	1933
Under supervised medical treatment	61	59
Unable to locate the person named	55	42
Examined but found presumably non-infectious	43	34
Other acceptable disposition (agreed to take treatment, etc.) ..	11	23
Disposition unknown, or unsatisfactory (evaded supervision by moving, etc.)	7	3
Referred to health officials in other States	33	25
Handled by police authorities	7	3
No response from local health authorities	14	16
	<hr/>	<hr/>
Total	231	205

The above is in addition to the cases where physicians have been instrumental in having the alleged sources brought in to them direct for examination and treatment.

Most physicians, realizing the infectiousness of gonorrhoea and syphilis, urge their patients to help them in having all who may have been exposed undergo examination and treatment. This is one of the most valuable services a physician can render in the control of these diseases.

Excellent cooperation is being offered by nearly all local health executives. The Bureau stands ready to help when the situation seems complicated or the local official does not know quite how to handle a case.

NEW CLINICS AND COOPERATING PHYSICIANS

A new list of venereal disease clinics and cooperating physicians has been published and is being circulated among physicians, health officers, and health workers, and a copy may be had on application.

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The clinic at Weehawken has been discontinued and new ones opened at Bridgeton, Irvington and Penns Grove.

There have been many changes in the list of cooperating physicians. Through death we have lost the valuable services of Dr. George L. Mack, of Bound Brook; Dr. R. B. Jarratt, of Penns Grove; Dr. Robert H. Reeves, of Paulsboro; Dr. H. H. Neldon, of Stanhope; Dr. Ralph S. Cone, of Westwood, and Dr. George L. Edwards, of Bogota. We are no longer represented at Collingswood, Leonia, Maplewood, Matawan, Newton, Phillipsburg, and Wildwood.

Summit, Bridgeton, Irvington and Penns Grove now have clinics; and new cooperating physicians are: Dr. E. H. Stillman, Audubon; Dr. T. M. Baird, Kearny; Dr. Clarence J. M. Hofer, Metuchen; Dr. Robert McC. Halbach, Toms River; and Doctors Charles T. Decker and L. H. Salvati, Westfield.

There are now 33 clinics in 28 cities, and 37 cooperating physicians.

PHYSICIANS REPORTING VENEREAL DISEASE CASES

In addition to the list of clinics and cooperating physicians another list has been included in the leaflet for the first time this year. It contains the names of physicians who have reported three or more cases of venereal disease in their private practices during the past year, and who may therefore be said to have a familiarity with the treatment of syphilis or gonorrhoea. The list will serve as a guide to the large number of physicians who do not treat gonorrhoea or syphilis, giving them the names of physicians who, as shown by the State records, have familiarized themselves with the treatment of gonorrhoea and syphilis, and to whom cases may be referred.

VENEREAL DISEASE WORKERS' CONFERENCE

The Third Annual Conference of Venereal Disease Social Workers was held under the auspices of the Bureau in connection with the Conference of New Jersey Social Workers, Thursday morning, December 1st, at the State House in Trenton. These

conferences were started three years ago with the idea of bringing together social workers in the venereal disease clinics throughout the State to hear discussions on matters closely relating to their work. Invitations have also been extended to clinicians, health officers, and to delegates generally to the State Conference of Social Workers. Usually there have been one or two principal addresses followed by a discussion of salient points relating to clinic and follow-up routine. At the 1932 meeting Dr. Walter Clarke, in charge of the Medical and Public Health Activities of the American Social Hygiene Association, spoke on the venereal disease clinic as it should be conducted in the large urban centers, and Dr. Franklin H. Church, Chief Clinician of the Salem County Venereal Disease Clinic, gave his experiences in the conduct of a successful rural clinic. Both papers were discussed at length bringing up the cleavage line between the health and police powers in the control of the venereal diseases.

PUBLIC HEALTH COURSE

Two lectures were given by the Chief of the Bureau, on the duties of the local health officers in the control of the venereal diseases, to the senior class in a public health course at Rutgers. The Supervisor of Social Hygiene Education presented a series of views showing syphilis in an advanced stage.

DRUG SUPPLIES

The continuance of the depression has been marked by growth in the number of patients in clinics and at the same time by a contraction in funds provided by local budgets to meet increasing costs in the treatment of the venereal diseases. The small allotment of funds to the bureau for drugs to be used in the treatment of venereal disease is insufficient to cover all demands that are made upon it, but the Bureau of Venereal Disease Control has felt under obligation to take care of clinics in emergency cases and to help them along where otherwise they would be compelled to refuse patients. Clinicians have had their attention called to the provision in the State law requiring communities to treat

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patients until non-infectious. Beyond that there is no legal obligation upon the health authorities. The Bureau has not recommended the discharge of any patient unless cured, if the community has the funds for treatment, but when it is a choice between a patient who has been under treatment for several years and one who is lately infectious, it is obvious that the protection of the public requires that the latter be treated rather than the former.

Drugs are supplied to cooperating physicians and also to physicians who in reporting a case of syphilis give the name and address of the source of infection.

INVESTIGATION

More than ever before has active assistance, especially in investigational work, been given to the local health officers. At the same time it is necessary to use some moderation in offering such assistance to avoid being imposed upon. The Bureau does not intend to supersede the local health officer, but will help with advice given in person. A striking instance of the value of this work has been the apprehension of a prostitute who voluntarily pleaded guilty to common prostitution and went to Clinton Farms where she is being given treatment. After her incarceration it was revealed that she had been the source of from 35 to 40 infections of gonorrhoea in one neighborhood. On the advice of one of the Bureau representatives an indigent woman with tertiary syphilis, who had been a problem and passed on from one health board to another, was sent to the State Hospital for the Insane for treatment, as she was regarded as a fit subject for that institution.

AN INDUSTRIAL CLINIC

A large industry in South Jersey employing colored men and women exclusively had the problem of syphilis among their workers thrust upon them. An investigation revealed that many of the workers, both men and women, were ignorant of the fact that they had syphilis but would gladly take treatment if it could be arranged. With the cordial cooperation of the corporation a

clinic was opened right on the grounds, a local physician engaged by the plant to examine the men and women and treat such as might be found to be infected. Six hundred and eighteen were examined, of whom 125 were positive, the syphilis ranging from primary to tertiary. Some moved away, but all of those who remained took treatment, the expenses being underwritten by the company. By now all of those originally found positive have become non-infectious and every new hand applying for employment is given a physical examination to determine the possible presence of a venereal disease. As a quasi-public clinic drugs were provided for its first year by the bureau.

EDUCATIONAL

New fields were discovered by the speakers representing the educational activities, and it is believed that the results will be appreciably felt in the control of the diseases.

It was found that many of the training schools for nurses limited their instruction on the venereal diseases strictly to the medical phases, not taking up the very important social and public health points of view. Accordingly each training school for nurses in the State was offered the services of speakers to discuss "The social phases of the venereal diseases," "The technique of sex education," and "The venereal diseases from a public health standpoint." The schools had the privilege of accepting any of the addresses, if they did not care for the three. It is evident that the lectures filled a need, for sixty-four talks were given in twenty-six hospitals. Close attention was given to all the lectures, and the speakers almost invariably commended highly by the director in charge. This newer knowledge of the venereal diseases can hardly fail to be an efficient preventive factor in later years.

Illustrated talks on venereal diseases have been given in several of the penal institutions of the State where older boys have been confined. When the meeting has been thrown open for questions at the conclusion of the lecture, the speaker is literally assailed from all sides by questions, frequently consuming over an hour for the questions and answers. The subject is a live one with

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most of the inmates and yet they had a pitiful ignorance as to the diseases and their causes.

WHEN VENEREAL DISEASE COMES TO SCHOOL

It may startle some to know that the venereal disease is an occasional visitor in the primary schools. Although it does not often appear, when it does it is an occasion for turmoil and confusion. Students are withdrawn, innocent children are suspected, and no one seems to know how or what to do. Usually the Bureau of Venereal Disease Control is appealed to, to lock the stable door after the horse has been stolen.

The idea was conceived to familiarize the teachers with the proper mode of procedure "when venereal disease comes to school" and supervising principals were asked to call special meetings of the teachers in their jurisdictions to hear the matter discussed by the Supervisor of Social Hygiene Education in the Bureau, who also conducted a round table discussion. Enough of these discussions were held to demonstrate the value of the plan, and emphasis will be placed upon it for the coming year.

HIGH SCHOOL

Every year high schools that have never availed themselves of the talks on sex hygiene to boys and girls become applicants for these addresses, and it is especially pleasing to know that during the past year the Atlantic City High School and both the Lincoln and Dickinson High Schools in Jersey City became applicants for the lectures for the first time. In these three schools several days were devoted to each, the boys and the girls. The groups were split up into approximately one hundred and fifty each, or as many as would be in a gymnasium class. Forty-six addresses were given in the two Jersey City High Schools.

CAMP DIX

The most spectacular phase of the educational activities undoubtedly was the work undertaken at Camp Dix in the last five

weeks of the fiscal year. Camp Dix in Burlington County was selected by the Federal Government as one of the headquarters for the Civilian Conservation Corps of young men enlisted for reforestation service under President Roosevelt's unemployment relief plan. The camp was placed under the control of the United States Army with a Brigadier-General in command. The Bureau rendered the Provost Marshal valuable assistance in ridding the vicinity of the camp of infectious prostitutes, and in breaking up some public dances where the girls engaged were of a questionable character.

The Commanding General saw the need of constructive, preventive work done with the young men, and he gave the Chaplain, Moral Officer of the Camp, *carte blanche* to go ahead and make arrangements with the Bureau to handle the situation. The reforestation men made up two units of approximately 7,000 each, each unit being in camp two weeks. It was decided that the men needed straight-out, direct information about venereal disease, which meant showing a series of films illustrating pathological specimens of the disease. The only hall suitable had a capacity of about 375. With the first unit one company was addressed at a time. This necessitated five talks a day before the men were covered. With the second unit two companies were addressed at a time, requiring only three meetings a day. The Supervisor of Social Hygiene Education and the Chief of the Bureau addressed each meeting, answering fully questions by the hundred, distributing copies of *Man Power*, and in the course of four or five weeks 88 addresses were made covering practically all the men in the Civilian Conservation Corps. The difficulty of the work will be understood when it is realized that the talks were given during one of the heated spells in late June, in a comparatively small room with both doors and windows closed to keep out the light. It required extraordinary endurance on the part of the speakers to go through with the work as planned. But they felt repaid when men, after an hour spent in a veritable sweat-box with the thermometer ranging around 100°, listening to talks on venereal disease, rewarded the lecturers with round after round of applause.

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GROUPS ADDRESSED

During the fiscal year meetings have been held as follows :

<i>Name of Group</i>	<i>Number of Meetings</i>	<i>Attendance</i>
Children of high school age	192	31,240
Civilian Conservation Corps	88	25,600
Parent-Teacher Associations	80	4,654
Nurses	64	2,665
Teachers	14	656
Kiwanis Club	10	430
Lions Club	10	310
Rotary Club	9	331
I. O. O. F. Lodges	7	326
Woman's Club	6	289
Reformatory Inmates	4	2,050
Junior Order United American Mechanics	4	865
Colored Groups	4	240
Clinic Social Workers	3	100
Public Health Course	3	37
American Legion	2	225
National Guards	1	75
Sons of St. George	1	75
Hi Y Boys	1	45
Masonic Lodge	1	40
Church Men's Club	1	38
State Normal Boys	1	30
N. J. State Safety Patrol	1	25
Service Clubs Council	1	10
Total	508	70,356

DEPARTMENT OF HEALTH

Below is a recapitulation of the number of meetings, the total attendance and the pamphlets distributed for each year since 1920:

	<i>Number of Meetings</i>	<i>Attendance</i>	<i>Pamphlets Distributed</i>
1920	376	72,192	353,873
1921	255	28,912	84,389
1922	232	28,111	120,032
1923	229	30,058	65,668
1924	300	41,629	49,560
1925	334	39,415	45,000
1926	357	38,923	50,000
1927	307	35,095	89,354
1928	308	28,624	38,146
1929	285	28,151	30,589
1930	388	37,954	49,502
1931	421	31,316	52,778
1932	327	25,276	27,279
1933	508	70,356	18,578
	4,627	535,912	1,074,748

The magnitude of the lecture activities may be gauged from the number of meetings; eighty-seven more than any other year since the establishment of the Bureau, and the attendance only 1,800 under the first year when the impetus of the governmental activities was still being felt and when the Bureau had a federal appropriation of \$27,500.

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MEETINGS HELD EACH MONTH, WITH THE TOTAL ATTENDANCE FOR THE MONTH, AND THE TYPE OF ATTENDANCE AT THE MEETINGS

1932-33	Men Only		Women Only		Together		Men & Women Students		Totals	
	No.	Attend- ance	No.	Attend- ance	No.	Attend- ance	No.	Attend- ance	No.	Attend- ance.
July	3	125	..	..	4	147	..	..	7	272
August	1	25	..	..	1	15	..	..	2	40
September	10	423	1	30	..	..	1	330	12	783
October	12	1,013	12	460	3	528	45	4,047	72	6,048
November	7	795	32	1,290	7	514	27	3,167	73	5,766
December	3	100	22	1,070	5	160	16	2,876	46	4,206
January	5	294	30	1,379	8	435	5	1,325	48	3,433
February	1	50	7	240	5	457	38	8,494	51	9,241
March	5	330	10	625	8	378	27	3,137	50	4,470
April	2	225	4	124	6	339	24	5,659	36	6,347
May	53	13,360	5	155	2	105	11	2,780	71	16,400
June	40	13,350	..	..	..	..	..	..	40	13,350
Totals	142	30,090	123	5,373	49	3,078	194	31,815	508	70,356

NEW LAW

The New Jersey Health Officers Association, realizing the need of a revision in the venereal disease enforcement law, sponsored the introduction of a bill in the General Assembly, making some basic changes in the present law. The bill passed both houses, with a slight amendment added in the Senate, and is now known as Chapter 261, P. L. 1933. The old law, Chapter 253, P. L. 1918, provides for the action to be taken by the local health executive upon receiving a report of an infection of venereal disease, from the Surgeon General of the United States Army or Navy or from the Commanding Officer of any military or naval organization situated in the State, etc. This feature of the bill, a "hang over" from the war-time legislation of 1918, was amended so as to provide that the action should be taken by the local health executive on receipt of such report from the Director of Health or anyone authorized by him to make the report.

The important change in the law, however, was in Section 7, and will best be understood by giving the section as it stood; namely:

“Cases of gonococcus infection are to be regarded as infectious until at least two successive smears taken not less than forty-eight hours apart fail to show gonococci. Cases of syphilis shall be regarded as infectious until all lesions of the skin and mucous membranes are fully healed. Cases of chancroid shall be regarded as infectious until all lesions are fully healed.”

Which will readily be recognized as an outgrown definition of infectiousness. Patients may be negative as to two smears, or have all their syphilitic skin lesions fully healed, yet still be virulently infectious. It is fortunate indeed that no legal action was ever brought to test the legality of holding patients as still infectious under those conditions.

Section 7 has been amended to read as follows:

“A case of syphilis, gonorrhoea or chancroid shall be regarded as infectious until a physician licensed to practice medicine, has examined the case and has reported to the local health department that the case is not infectious, but if in the opinion of the health officer of the jurisdiction the protection of the public health requires it he shall have power to review the case and to cause a medical examination of any such case to be made by a physician designated by him and the opinion of this physician as to the infectiousness or non-infectiousness of the case shall be final.”

The importance of the latter change cannot be over-estimated. Now the attending physician is the judge as to whether or not a patient is infectious, leaving the health officer the privilege of appeal to another physician whose decision is final. The passage of this law is without doubt one of the most important factors in venereal disease control that has happened in New Jersey in the last ten years.

Report of the Bureau of Public Health Education

For the Year Ending June 30, 1933

EDWIN C. LANIGAN, CHIEF

Public health education in New Jersey during the fiscal year consisted principally of dissemination of information through the medium of the public press and magazines. The press of New Jersey was very responsive to material furnished by the bureau. The magazine of the League of Municipalities carried a series of articles relating to the activities of the State Department of Health, its legislative program and subjects pertaining to public health.

Emphasis was placed upon the department's program urging the public to consult physicians for treatment of maladies.

The Bureau carried on publicity activities of the department. An intensive campaign was continued to acquaint the public with the various lines of work centered in the department.

Governmental experts have publicly commended the advisability of providing the department with an adequate appropriation to inaugurate an educational campaign which might eventually result in a substantial curtailment of the State's growing burden for institutional care. Such a recommendation is based on the theory that prevention will return greater dividends than subsequent cure after custodial care.

A better understanding on the part of the public of the services rendered by the department to the physicians of the State in diagnosis of communicable disease specimens and the work of our laboratories in analyzing food products and milk supplies would bring the department moral support to extend its work.

Administration of Chapter 175 of the Laws of 1933, adopted May 24, 1933, was placed in the Bureau of Public Health Educa-

tion. The act provides for the registration of those practicing barbering. It provides for the appointment of three examiners, one recommended by the Master Barbers' Association of New Jersey, the second by the Journeymen Barbers' Association, and the third member to be appointed by the State Department of Health.

The bureau had exhibits at fairs in Trenton, Flemington, Bridgeton and Egg Harbor. It also took part in the Summer School for health workers conducted jointly by the department and Rutgers University.

Report of the Bureau of Vital Statistics

For the Calendar Year 1932

DAVID S. SOUTH, STATE REGISTRAR

The Bureau, which was established in 1878, has the custody of more than seven million records of births, marriages and deaths which date back to 1848. In 1932 more than 13,000 searches were made and copies of the records found issued, for which \$7,516.00 were received and paid to the State Treasurer. Approximately 5,000 of the copies were issued to widows, veterans and veteran's organizations for compensation and other pension purposes; for children to enter school or procure employment; for enlistment in the Army or Navy of the United States, for all of which purposes no charge is made.

The registration of births, marriages and deaths was supervised in each city, borough and township of the State. Blanks for birth, marriage and death certificates, burial and transit permits and other forms were supplied by the Bureau as required by law.

During the year 1932, the Bureau received, examined, classified, indexed and permanently filed more than 135,000 certificates of births, marriages and deaths, part of which records were for unreported events which occurred in past years. The annual growth of the records requires approximately two hundred cubic feet of storage space.

An effort was made to further improve the marriage laws by preparing and introducing into the House of Assembly a revision of the marriage laws. It was impossible to secure the release of the bill from the Committee.

Previous efforts to obtain the much needed repair and restoration of the records of births, marriages and deaths from 1848 to

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1867 were successful. Those old records, which were received from the Secretary of State more than fifty years ago, were re-conditioned, repaired with Japanese tissue and rebound in canvas.

The Bureau compiled an increased amount of special statistical data, for the use of insurance companies, chambers of commerce, students, statisticians and agencies interested in disease and accident prevention.

GENERAL SUMMARY

	<i>1920</i>	<i>1930</i>	<i>1932</i>
Births registered, tabulated and indexed	76,431	68,282	61,215
Marriages registered, tabulated and indexed ..	31,327	28,499	22,840
Deaths registered, tabulated and indexed	40,820	43,190	42,826
Stillbirths registered, tabulated and indexed ..	3,221	2,647	2,343
	<hr/>	<hr/>	<hr/>
Total records registered, tabulated and permanently filed	151,799	142,618	129,224
Searches made and certified copies issued for which fees were received	4,664	10,523	8,489
Certified copies issued and searches made in pension and other cases for which no fees were received	4,232	6,938	4,743
Fees returned to State Treasurer for searches and certified copies	\$4,051	\$9,601	\$7,516

CHARTS AND TABLES, 1932

- Table 1. Births, marriages and deaths reported, with rates, 1879-1932.
- Table 1a. Births, marriages and deaths and deaths under one year of age by counties, cities, boroughs and townships.
- Table 2. Deaths by age groups, with the percentage which each group forms of total deaths: 1932.
- Chart 1. Total deaths per 1,000 population for 54 years.
- Table 3. Deaths of infants under five years of age and percentage of total deaths, 1904-1932.
- Chart 2. Deaths under five years of age per 10,000 population for 54 years.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1932.
- Table 5. Deaths under one year, deaths under one month, stillbirths and maternal deaths per 1,000 live births, by counties.

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- Table 6. Deaths under one year, deaths under one month, stillbirths and maternal deaths per 1,000 live births in the ten largest cities of New Jersey.
- Table 7. Births, birth rates, deaths under one year and infant mortality rates, by counties.
- Chart 3. Deaths from typhoid fever per 10,000 population for 54 years.
- Table 8. Comparison between typhoid fever death rates in New Jersey and the United States Registration Area, 1922-1931.
- Table 9. Typhoid fever in urban and rural districts.
- Table 10. Typhoid fever rates in the counties of New Jersey, 1923, 1932.
- Chart 4. Deaths from scarlet fever per 10,000 population for 54 years.
- Chart 5. Deaths from diphtheria per 10,000 population for 54 years.
- Table 11. Average annual death rates from all causes and from tuberculosis of lungs, per 10,000 inhabitants, by counties for 54 years, with rates for 1932.
- Chart 6. Deaths from tuberculosis of lungs per 10,000 population for 54 years.
- Table 12. Cancer and other malignant tumors by sex, age periods and organs affected.
- Chart 7. Deaths from cancer and other malignant tumors, per 10,000 population for 54 years.
- Table 13. Suicide by sex, age periods and means employed.
- Table 14. Percentage of the various causes of total deaths and 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 from each cause, Detailed International List, in the counties of New Jersey and selected municipalities of 5,000 or more inhabitants in 1930.
- Table 21. Deaths by occupations, age groups and certain selected causes.

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Table 22. Death by causes, sex, color and age periods in the counties and cities having 10,000 or more inhabitants in 1930 (county figures include cities which follow):

Atlantic County—	Essex County (con.)—	Monmouth County—
Atlantic City	Irvington	Asbury Park
Pleasantville	Montclair	Long Branch
	Newark	Red Bank
Bergen County—	Nutley	
Cliffside Park	Orange	Morris County—
Englewood	South Orange	Dover
Garfield	West Orange	Morristown
Hackensack		
Lodi	Gloucester County—	Ocean County—
Ridgefield Park		
Ridgewood	Hudson County—	Passaic County—
Rutherford	Bayonne	Clifton
	Harrison	Hawthorne
Burlington County—	Hoboken	Passaic City
Burlington City	Jersey City	Paterson
	Kearny	
Camden County—	Union City	Salem County—
Camden City	West New York	
Collingswood		Somerset County—
Gloucester	Hunterdon County—	Sussex County—
Cape May County—	Mercer County—	Union County—
	Trenton	Elizabeth
Cumberland County—		Linden
Bridgeton	Middlesex County—	Plainfield
Millville	Carteret	Rahway
	New Brunswick	Roselle
Essex County—	Perth Amboy	Summit
Belleville	South River	Westfield
Bloomfield		
East Orange		Warren County—
		Phillipsburg

Population—The estimated mid-year population of the State for 1932 was 4,235,698. These figures were obtained by the arithmetical method, using the United States census figures for 1920 and 1930. The estimated population of the counties and incorporated municipalities of the State having 10,000 or more inhabitants in 1930 appears at the foot of the mortality tables for the places.

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Births—The number of births for 1932 was 61,215 which was equivalent to a rate of 14.4 per 1,000 population. Total births reported decreased almost 3,000 from the number for the previous year. The 1932 rate was the lowest since 1905. It is likely that a higher rate would have prevailed in 1905 had all births been reported. The low figure for 1932 is a continuance of the decline in evidence since 1917 when the rate was 24.9.

Marriages—The number of persons married during 1932, per thousand population, was 10.7, which rate was the lowest since marriage statistics were first compiled in 1879. The ease and rapidity with which marriage licenses can be secured in certain adjacent States materially affect the New Jersey rate. Economic conditions were also a considerable factor and were undoubtedly partly responsible for the gradual decline which has occurred in the marriage rate during the past ten years.

Deaths—The death rate for 1932 of 10.1 was the lowest rate since the State Department of Health was established fifty-five years ago. The previous low rate was 10.6 for 1930 and 1931.

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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	Persons married per 1,000 population	Number of deaths	Death rate per 1,000 population
1879	1,020,584	23,116	22.65	7,096	13.91	20,440	20.03
1880	1,130,892	23,680	20.94	7,963	14.08	18,907	16.77
1881	1,160,275	23,484	20.24	8,109	13.98	20,812	17.94
1882	1,189,658	23,108	19.42	8,837	14.86	25,930	21.82
1883	1,209,048	24,430	20.21	9,166	15.16	23,310	19.28
1884	1,248,224	25,263	20.20	8,968	14.37	21,716	17.40
1885	1,278,033	24,077	18.84	8,980	14.07	23,807	18.63
1886	1,310,431	25,497	19.46	12,351	18.85	22,734	17.35
1887	1,342,829	27,340	20.36	15,416	22.06	24,331	18.12
1888	1,375,227	28,074	20.41	16,025	23.31	27,173	19.76
1889	1,407,625	29,099	20.67	15,726	22.34	26,543	18.86
1890	1,441,017	30,103	20.89	15,504	21.60	28,530	19.80
1891	1,478,784	28,882	19.53	15,305	20.70	28,540	19.50
1892	1,511,653	30,627	20.26	16,082	21.28	32,685	21.62
1893	1,538,799	32,285	20.98	17,178	22.33	30,596	19.88
1894	1,578,378	33,662	21.33	16,245	20.58	30,604	19.09
1895	1,672,942	31,742	18.97	15,873	18.98	30,634	18.31
1896	1,718,543	31,207	18.16	18,370	21.38	30,767	17.90
1897	1,764,144	31,595	17.91	18,171	20.60	29,822	16.90
1898	1,810,008	32,515	17.96	13,213	14.59	27,337	15.11
1899	1,855,872	29,419	15.84	13,336	14.37	30,999	16.70
1900	1,883,669	32,270	17.13	14,611	15.51	31,474	16.62
1901	1,925,781	34,812	18.08	16,539	17.18	31,759	16.48
1902	1,987,893	35,116	17.84	18,150	18.45	31,319	15.91
1903	2,016,797	37,242	18.47	19,512	19.55	31,820	15.87
1904	2,058,909	38,751	18.82	18,919	18.38	35,298	17.14
1905	2,144,143	39,689	18.51	20,572	19.19	33,864	15.79
1906	2,196,288	42,677	19.43	21,580	19.65	35,670	16.24
1907	2,248,321	44,651	19.86	23,649	21.04	37,408	16.63
1908	2,309,427	47,405	20.61	26,155	22.74	35,597	15.47
1909	2,352,522	47,508	20.19	26,734	25.27	36,359	15.46
1910	2,337,167	53,942	23.26	27,912	25.00	39,494	15.57
1911	2,615,772	58,133	22.23	25,914	19.13	38,612	14.76
1912	2,694,377	60,073	22.30	26,821	19.91	37,772	14.02
1913	2,771,981	61,432	22.15	27,697	19.98	39,425	14.22
1914	2,851,586	65,403	22.94	28,528	20.01	39,967	14.02
1915	2,877,532	66,476	23.10	27,694	19.25	39,435	13.70
1916	2,948,016	70,211	23.82	31,169	21.15	43,376	14.71
1917	3,014,193	75,309	24.98	30,060	19.94	43,532	14.44
1918	3,080,371	74,549	24.20	33,989	15.58	60,852	19.75
1919	3,146,547	70,935	22.54	29,281	18.61	39,979	12.71
1920	3,187,767	76,431	23.97	31,327	19.65	40,820	12.80
1921	3,251,494	78,172	24.04	27,815	17.10	37,362	11.49
1922	3,315,223	74,479	22.46	27,114	16.35	40,086	12.06
1923	3,378,963	74,611	22.08	28,730	17.00	41,294	12.22
1924	3,442,695	76,530	22.22	27,601	16.03	40,531	11.77
1925	3,506,427	74,193	21.15	27,672	15.78	41,749	11.90
1926	3,570,159	72,366	20.27	28,424	15.92	44,396	12.43
1927	3,633,801	72,799	20.03	28,316	15.58	41,562	11.43
1928	3,697,623	70,076	18.95	29,120	15.75	44,555	12.04
1929	3,761,355	68,237	18.15	30,257	16.08	45,746	12.16
1930	4,062,930	68,282	16.80	28,499	14.02	43,190	10.63
1931	4,149,314	64,078	15.44	26,468	12.75	44,135	10.63
1932	4,235,698	61,215	14.45	22,840	10.78	42,826	10.11

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TABLE 1A.—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS, 1932
(Births and Deaths Corrected as to Residence)

ATLANTIC COUNTY				
NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Absecon City	32	8	20	2
Atlantic City	920	470	970	82
Princeton City	6	3	2	...
Buena Vista Township	74	26	41	6
Corbin City	3	1	2	...
Egg Harbor City	69	42	41	4
Egg Harbor Township	41	12	29	...
Estelle Manor City	2	...	3	...
Folsom Borough	1	...	...	...
Galloway Township	67	9	45	2
Hamilton Township	53	...	35	1
Hammonton Town	135	56	62	6
Linwood City	33	11	22	3
Longport Borough	3	1	4	...
Margate City	32	6	35	1
Mullica Township	24	3	17	1
Northfield City	41	10	32	3
Pleasantville City	177	74	172	16
Port Republic City	6	5	4	...
Somers Point City	39	7	27	3
Ventnor City	39	45	94	3
Weymouth Township	19	...	13	1
Total	1833	799	1670	134

BERGEN COUNTY				
NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allendale Borough	16	5	14	...
Alpine Borough	6	8	8	...
Bergenfield Borough	156	48	80	5
Bogota Borough	85	38	81	1
Carlstadt Borough	89	41	59	8
Cliffside Park Borough	227	67	119	5
Closter Borough	36	15	18	2
Crosskill Borough	26	9	20	...
Demarest Borough	13	6	8	...
Dumont Borough	93	35	59	4
East Paterson Borough	60	14	37	...
East Rutherford Borough	99	46	82	5
Edgewater Borough	49	33	45	3
Emerson Borough	16	3	9	1
Englewood City	273	182	193	16
Englewood Cliffs Borough	7	5	6	...
Fair Lawn Borough	142	28	50	3
Fairview Borough	124	58	58	3
Fort Lee Borough	106	167	79	3
Franklin Lakes Borough	12	2	8	...
Garfield City	503	147	170	27
Glen Rock Borough	58	15	37	...
Hackensack City	392	194	240	22
Harrington Park Borough	9	3	6	...
Hasbrouck Heights Borough	71	23	37	3
Haworth Borough	10	6	13	...
Hillsdale Borough	39	11	22	...
Hobokus Borough	14	17	9	1
Hobokus Township	48	17	28	3
Leonia Borough	56	33	58	3
Little Ferry Borough	81	28	51	4
Lodi Borough	211	85	104	14
Lodi Township	23	4	9	...
Lyndhurst Township	239	88	130	6
Maywood Borough	44	13	34	1
Midland Park Borough	76	23	44	3
Montvale Borough	12	9	21	4
Moanachie Borough	19	7	9	...
New Milford Borough	40	7	18	3
North Arlington Borough	165	32	57	5
Northvale Borough	9	28	3	...

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BERGEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Norwood Borough	17	5	13	...
Oakland Borough	15	2	11	1
Old Tappan Borough	7	...	12	1
Oradell Borough	34	10	26	...
Palisade Park Borough	116	29	46	4
Paramus Borough	30	8	22	...
Park Ridge Borough	33	25	21	1
Ramsey Borough	43	17	43	3
Ridgefield Borough	41	33	44	3
Ridgefield Park Borough	136	53	111	5
Ridgewood Village	118	72	148	7
River Edge Borough	31	10	28	1
Rivervale Township	12	...	7	...
Rochele Park Township	48	12	21	...
Rockleigh Borough	...	...	...	...
Rutherford Borough	137	71	147	5
Saddle River Borough	9	2	16	1
Saddle River Township	22	5	10	...
Teaneck Township	253	47	173	11
Tenafly Borough	89	26	66	3
Teterboro Borough	1	...	...	...
Upper Saddle River Borough	5	...	3	...
Waldwick Borough	23	5	15	...
Wallington Borough	150	12	57	6
Washington Township	4	...	3	1
Westwood Borough	56	33	58	2
Woodcliffe Lake Borough	11	3	8	...
Woodridge Borough	85	16	50	1
Wyckoff Township	39	7	20	1
Total	5319	2098	3323	215

BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township	9	3	12	1
Beverly City	62	18	35	3
Bordentown City	55	23	67	1
Bordentown Township	7	1	2	1
Burlington City	167	54	139	13
Burlington Township	28	5	25	3
Chester Township	96	11	39	5
Chesterfield Township	16	4	15	2
Cinnaminson Township	20	6	23	3
Delanco Township	35	6	29	3
Delran Township	30	6	23	5
Eastampton Township	8	...	4	...
Edgewater Park Township	13	2	14	1
Evesham Township	31	2	27	3
Fieldsboro Borough	5	1	5	...
Florence Township	111	31	62	3
Hainesport Township	22	1	8	...
Lumberton Township	8	3	16	1
Mansfield Township	20	10	30	2
Medford Township	37	8	34	2
Moorestown Township	97	36	77	7
Mount Holly Township	114	44	105	8
Mount Laurel Township	31	6	17	1
New Hanover Township	11	1	17	3
North Hanover Township	9	3	6	...
Palmyra Borough	82	20	49	6
Pemberton Borough	7	6	11	...
Pemberton Township	23	4	23	2
Riverside Township	116	37	61	8
Riverton Borough	27	7	33	...
Shamong Township	6	1	7	...
Southampton Township	31	5	36	...
Springfield Township	23	1	18	3
Tabernacle Township	8	...	6	...
Washingtown Township	10	1	8	...
Westampton Township	7	6	5	1
Willingboro Township	14	1	7	...
Woodland Township	13	1	6	1
Wrightstown Borough	4	...	7	1
Total	1403	375	1108	93

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CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough	91	23	74	1
Barrington Borough	32	8	30	3
Bellawar Borough	16	...	11	...
Berlin Borough	38	22	21	5
Berlin Township	35	7	19	2
Brooklawn Borough	19	6	15	...
Camden City	1916	648	1445	138
Chesilhurst Borough	3	2	6	...
Clementon Borough	31	10	35	1
Collingswood Borough	146	51	134	9
Delaware Township	57	3	43	1
Gibbsboro Borough	12	3	5	2
Gloucester City	225	42	189	16
Gloucester Township	70	26	72	3
Haddonfield Borough	111	29	121	5
Haddon Heights Borough	65	33	68	1
Haddon Township	84	17	69	3
HiNella Borough	2	...	2	1
Laurel Springs Borough	20	8	11	...
Lawnside Borough	23	8	21	...
Lindenwald Borough	37	12	33	4
Magnolia Borough	25	9	16	4
Merchantville Borough	109	30	86	4
Mount Ephraim Borough	44	17	19	3
Oaklyn Borough	75	10	35	4
Pensauken Township	196	30	173	8
Pine Hill Borough	22	...	29	5
Pine Valley Borough	...	...	...	...
Runnemede Borough	45	8	27	...
Somerdale Borough	23	...	16	1
Stratford Borough	15	1	10	...
Tavistock Borough	3	...	...	...
Voorhees Township	21	1	6	1
Waterford Township	58	9	32	2
Winslow Township	92	11	53	7
Woodlyn Borough	39	7	25	3
Total	3794	1094	2951	237

CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough	10	2	7	...
Cape May City	37	22	51	3
Cape May Point Borough	2	2	4	...
Dennis Township	31	5	33	1
Lower Township	22	6	25	1
Middle Township	61	23	49	1
North Cape May Borough	...	...	...	...
North Wildwood City	25	8	23	1
Ocean City	86	48	58	1
Sea Isle City	10	11	12	...
South Cape May Borough	...	...	...	...
Stone Harbor Borough	9	1	6	...
Upper Township	34	15	32	3
West Cape May Borough	12	...	13	...
West Wildwood City	...	...	2	...
Wildwood City	76	61	92	4
Wildwood Crest Borough	4	1	12	...
Woodbine Borough	23	3	13	1
Total	442	208	432	16

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CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City	260	99	219	16
Commercial Township	40	19	36	2
Deerfield Township	27	4	8	...
Downe Township	36	4	28	3
Fairfield Township	41	9	29	4
Greenwich Township	14	5	11	1
Hopewell Township	23	4	26	2
Landis Township	87	56	142	5
Lawrence Township	29	2	24	3
Mautice River Township	31	7	30	...
Millville City	261	87	200	12
Shiloh Borough	7	2	10	...
Stow Creek Township	18	2	10	...
Upper Deerfield Township	33	14	20	2
Wichland Borough	165	44	94	1
Total	1912	358	887	51

ESSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Belleville Town	461	122	223	17
Bloomfield Town	639	174	364	26
Calwail Borough	68	25	72	3
Caldwell Township	14	3	10	...
Cedar Grove Township	33	5	39	...
East Orange City	861	289	695	42
Essex Falls Borough	11	9	3	1
Gen. Ridge Borough	81	25	77	3
Ivington Town	793	219	483	28
Livingston Township	62	12	37	6
Maplewood Township	264	74	169	7
Millburn Township	132	35	77	4
Montclair Town	521	259	431	21
Newark City	7257	3486	4865	324
North Caldwell Borough	9	2	6	...
Norley Town	391	105	159	15
Orange City	625	206	312	24
Roseland Borough	18	4	11	...
South Orange Village	138	52	132	6
Verona Borough	166	24	65	3
West Caldwell Borough	27	6	21	...
West Orange Town	424	97	228	14
Total	12850	5392	8499	538

GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough	37	15	35	5
Deptford Township	54	9	28	3
East Greenwich Township	30	7	23	2
Eik Township	24	2	18	1
Franklin Township	61	14	34	5
Glassboro Borough	65	29	58	7
Greenwich Township	53	5	28	1
Harrison Township	31	7	32	4
Logan Township	28	2	21	...
Mantua Township	46	1	47	5
Monroe Township	70	16	53	6
National Park Borough	43	11	27	3
Newfield Borough	16	4	14	2
Paulsboro Borough	135	35	73	4
Pitman Borough	51	29	75	...
South Harrison Township	6	...	6	...
Swedesboro Borough	47	10	47	5
Washington Township	20	7	23	2
Wenonah Borough	9	9	19	...
West Deptford Township	67	3	39	4
Westville Borough	45	7	50	2
Woodbury City	132	39	121	16
Woodbury Heights Borough	18	3	13	2
Woolwich Township	21	1	7	1
Total	1109	265	891	80

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HUDSON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bayonne City	1290	401	726	65
East Newark Borough	34	8	21	1
Guttenberg Town	93	49	58	7
Harrison Town	245	104	132	8
Hoboken City	734	739	637	41
Jersey City	5201	2069	3567	318
Kearny Town	609	157	347	23
North Bergen Township	589	171	387	22
Secaucus Borough	89	32	60	6
Union City	772	464	562	29
Weehawken Township	146	175	164	5
West New York Town	556	419	295	10
Total	10358	4779	6956	535

HUNTERDON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Township	21	2	17	2
Bethlehem Township	14	...	4	1
Bloomsbury Borough	12	6	7	1
Califon Borough	10	6	7	...
Clinton Town	11	2	23	1
Clinton Township	26	6	11	...
Delaware Township	26	8	19	2
East Amwell Township	11	4	18	...
Flemington Borough	35	15	35	2
Franklin Township	12	4	19	1
Frenchtown Borough	10	6	22	...
Glen Gardner Borough	8	1	6	...
Hampton Borough	13	8	16	...
High Bridge Borough	21	3	32	1
Holland Township	20	1	17	3
Kingwood Township	9	1	10	...
Laurelville City	53	22	71	4
Lebanon Borough	10	3	15	1
Lebanon Township	14	3	10	1
Milford Borough	10	3	14	...
Raritan Township	23	3	12	...
Readington Township	33	13	48	4
Stockton Borough	9	1	9	...
Tewksbury Township	8	5	18	1
Union Township	20	...	8	1
West Amwell Township	12	1	8	...
Total	460	127	476	26

DEPARTMENT OF HEALTH

MERCER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Township	13	...	7	...
Ewing Township	179	17	66	9
Hamilton Township	502	73	290	25
Hightstown Borough	40	10	47	1
Hopewell Borough	26	11	30	3
Hopewell Township	49	6	54	8
Lawrence Township	83	14	73	5
Pennington Borough	21	1	22	...
Princeton Borough	112	55	86	4
Princeton Township	34	5	23	3
Trenton City	1886	480	1400	123
Washington Township	15	...	9	1
West Windsor Township	21	4	14	...
Total	2981	676	2121	182

MIDDLESEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Carteret Borough	192	47	81	9
Cranbury Township	20	13	15	2
Dunellen Borough	103	31	50	...
East Brunswick Township	51	2	25	2
Helmetta Borough	7	12	5	...
Highland Park Borough	131	28	67	7
Jamesburg Borough	47	19	35	4
Madison Township	46	7	29	2
Metuchen Borough	86	30	53	1
Middlesex Borough	45	4	30	2
Milltown Borough	45	15	35	4
Monroe Township	28	2	13	2
New Brunswick City	559	255	363	19
North Brunswick Township	42	26	29	3
Perth Amboy City	620	268	373	46
Piscataway Township	89	12	39	1
Plainsboro Township	13	1	12	1
Raritan Township	180	22	84	11
Sayreville Borough	159	37	63	6
South Amboy City	131	39	93	3
South Brunswick Township	40	8	48	1
South Plainfield Borough	74	13	51	4
South River Borough	177	46	88	12
Spotswood Borough	21	2	12	...
Woodbridge Township	397	70	217	28
Total	3283	1009	1910	170

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MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Borough	6	...	11	...
Allentown Borough	17	14	18	...
Asbury Park City	202	164	232	10
Atlantic Township	7	4	14	...
Atlantic Highlands Borough	31	20	45	6
Avon Borough	16	9	23	...
Belmar Borough	57	24	61	2
Bradley Beach Borough	26	15	38	...
Brielle Borough	10	1	5	2
Deal Borough	9	14	8	...
Eatontown Borough	31	14	30	3
Englishtown Borough	12	1	18	2
Fair Haven Borough	36	6	32	1
Farmingdale Borough	21	5	14	...
Freehold Borough	119	52	80	5
Freehold Township	30	3	30	1
Highlands Borough	42	18	25	1
Holmdel Township	22	2	13	2
Howell Township	33	8	38	2
Interlaken Borough	6	...	6	...
Keansburg Borough	44	20	38	2
Keyport Borough	72	51	75	4
Little Silver Borough	18	3	14	3
Long Branch City	281	123	219	12
Manalapan Township	21	6	19	3
Manasquan Borough	42	34	35	1
Marlboro Township	18	5	39	2
Matawan Borough	51	10	46	1
Matawan Township	25	7	16	...
Middletown Township	127	45	127	8
Millstone Township	16	3	19	2
Monmouth Beach Borough	11	1	8	...
Neptune Township	177	52	158	14
Neptune City Borough	40	11	20	1
Ocean Township	52	8	48	4
Oceanport Borough	19	1	25	...
Raritan Township	18	...	17	1
Red Bank Borough	181	82	154	5
Rumson Borough	38	26	36	3
Sea Bright Borough	21	4	17	1
Sea Girt Borough	5	2	7	...
Shrewsbury Borough	24	12	7	1
Shrewsbury Township	9	4	7	...
South Belmar Borough	19	2	13	...
Spring Lake Borough	30	9	23	1
Spring Lake Heights Borough	23	3	14	2
Union Beach Borough	25	7	26	...
Upper Freehold Township	22	3	25	1
Wall Township	53	12	25	...
West Long Branch Borough	27	14	13	...
Total	2242	952	2081	109

DEPARTMENT OF HEALTH

MORRIS COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bounton Town	112	28	82	7
Bounton Township	8	1	1	...
Butler Borough	58	23	34	4
Chatham Borough	66	17	43	1
Chatham Township	13	...	7	1
Chester Borough	10	5	15	1
Chester Township	5	...	13	...
Denville Township	41	11	23	1
Dover Town	163	64	95	10
East Hanover Township	12	3	5	...
Florham Park Borough	13	1	18	...
Hanover Township	37	6	25	2
Harding Township	13	6	12	...
Jefferson Township	27	4	14	2
Kinnelon Borough	8	...	3	...
Lincoln Park Borough	25	4	17	1
Madison Borough	136	48	89	10
Mendham Borough	24	8	20	1
Mendham Township	7	5	6	1
Mill Hill Township	24	2	12	2
Montville Township	54	12	35	1
Morris Plains Borough	38	24	26	1
Morristown Town	241	87	191	11
Morris Township	55	13	72	7
Mountain Lakes Borough	25	6	28	1
Mount Arlington Borough	6	2	6	...
Mount Olive Township	14	9	17	1
Netcong Borough	42	29	21	...
Parsippany-Troy Hills Township	36	11	47	1
Passaic Township	32	13	26	...
Pennamock Township	42	6	20	1
Randolph Township	29	12	23	2
Riversdale Borough	14	...	11	...
Rockaway Borough	65	23	42	2
Rockaway Township	40	4	30	...
Roxbery Township	31	13	39	1
Washington Township	20	10	14	1
Wharton Borough	62	19	34	6
Total	1708	520	1216	80

OCEAN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat City Borough	7	1	1	...
Bay Head Borough	4	5	4	...
Beach Haven Borough	6	6	6	...
Beachwood Borough	5	...	6	...
Berkeley Township	11	3	10	2
Brick Township	18	4	17	5
Dover Township	64	29	36	1
Eagleswood Township	10	6	11	1
Harvey Cedars Borough	...	...	1	...
Island Heights Borough	6	1	11	...
Jackson Township	14	2	15	...
Lacey Township	8	2	9	...
Lakehurst Borough	15	7	19	2
Lakewood Township	99	90	102	8
Lavallette Borough	6	...	2	...
Little Egg Harbor Township	10	...	10	...
Long Beach Township	4	1	6	...
Manchester Township	8	1	6	1
Mantoloking Borough	1	...	...	...
Ocean Township	7	...	...	...
Ocean Gate Borough	1	2	2	...
Pine Beach Borough	2	3	1	...
Plumstead Township	18	5	30	3
Point Pleasant Borough	58	12	36	5
Point Pleasant Beach Borough	7	10	17	...
Seaside Heights Borough	4	3	6	...
Seaside Park Borough	12	7	6	...
Ship Bottom-Beach Arlington Borough	5	...	1	...
South Toms River Borough	7	5	5	...
Stafford Township	16	7	12	3
Surf City Borough	1
Tuckerton Borough	21	10	17	1
Union Township	14	1	17	...
Total	469	230	439	32

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PASSAIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomfield Borough	54	14	21	2
Clifton City	682	99	379	30
Haledon Borough	76	21	54	4
Hawthorne Borough	153	41	100	4
Little Falls Borough	84	28	58	5
North Haledon Borough	29	7	11	1
Passaic City	814	506	539	38
Paterson City	2011	865	1519	105
Pompton Lakes Borough	54	16	31	3
Prospect Park Borough	92	23	32	4
Ringwood Borough	27	...	8	2
Totowa Borough	59	12	38	5
Wanaque Borough	48	20	26	5
Wayne Township	85	24	54	4
West Milford Township	37	9	31	2
West Paterson Borough	53	5	44	1
Total	4358	1690	2945	215

SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Township	28	8	25	2
Elmer Borough	17	19	28	...
Elsinboro Township	5	1	6	...
Lower Alloways Creek Township	22	6	11	...
Lower Penns Neck Township	60	4	29	4
Mannington Township	14	2	16	3
Oldmans Township	24	7	11	1
Penns Grove Borough	109	37	77	12
Pilesgrove Township	29	3	18	3
Pittsgrove Township	25	3	19	2
Quinton Township	21	5	19	2
Salem City	119	37	115	19
Upper Penns Neck Township	55	13	32	7
Upper Pittsgrove Township	35	1	19	1
Woodstown Borough	27	12	33	1
Total	581	140	449	49

SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Township	14	9	15	1
Bernards Township	28	11	22	...
Bernardsville Borough	58	28	35	1
Bound Brook Borough	155	82	69	2
Branchburg Township	20	2	17	1
Bridgewater Township	91	8	52	7
Far Hills Borough	9	1	8	...
Franklin Township	99	20	55	3
Green Brook Township	4	...	6	...
Hillsborough Township	29	14	28	1
Manville Borough	115	34	35	3
Millstone Borough	5	...	1	...
Montgomery Township	31	10	21	1
North Plainfield Borough	134	69	106	7
Peapack-Gladstone Borough	22	3	20	3
Raritan Town	50	24	27	2
Rocky Hill Borough	11	2	9	2
Somerville Borough	113	49	109	5
South Bound Brook Borough	26	8	22	...
Warren Township	19	3	12	1
Watchung Borough	14	5	6	...
Total	1047	373	675	40

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SUSSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Borough	5	5	5	...
Andover Township	6	1	4	...
Branchville Borough	13	4	11	...
Byram Township	7	...	6	1
Frankford Township	30	...	17	1
Franklin Borough	76	20	34	4
Fredon Township	4	2	4	...
Green Township	11	1	3	...
Hamburg Borough	22	9	13	2
Hampton Township	8	10	4	1
Hardyston Township	15	3	10	...
Hopatcong Borough	7	2	1	...
Lafayette Township	16	2	17	1
Montague Township	10	4	8	1
Newton Town	75	24	75	8
Ogdensburg Borough	21	1	11	...
Sandyston Township	6	3	7	1
Sparta Township	26	4	27	2
Stanhope Borough	15	9	18	2
Stillwater Township	14	4	7	1
Sussex Borough	33	14	22	1
Vernon Township	20	5	12	2
Wallpack Township	2	...	1	...
Wantage Township	26	4	15	...
Total	468	131	332	28

UNION COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Township	16	1	18	1
Cranford Township	183	31	110	4
Elizabeth City	1807	673	1090	96
Fanwood Borough	40	2	16	1
Garwood Borough	49	22	25	2
Hillside Township	234	56	133	5
Kenilworth Borough	37	2	16	2
Linden City	400	82	181	22
Mountainside Borough	17	...	8	...
New Providence Borough	26	8	15	...
New Providence Township	24	4	13	1
Plainfield City	566	197	404	32
Rahway City	238	72	169	7
Roselle Borough	214	77	110	9
Roselle Park Borough	136	30	79	6
Scotch Plains Township	84	17	36	3
Springfield Township	79	19	35	5
Summit City	187	65	121	5
Union Township	331	58	158	9
Westfield Town	212	69	164	9
Total	4880	1485	2901	219

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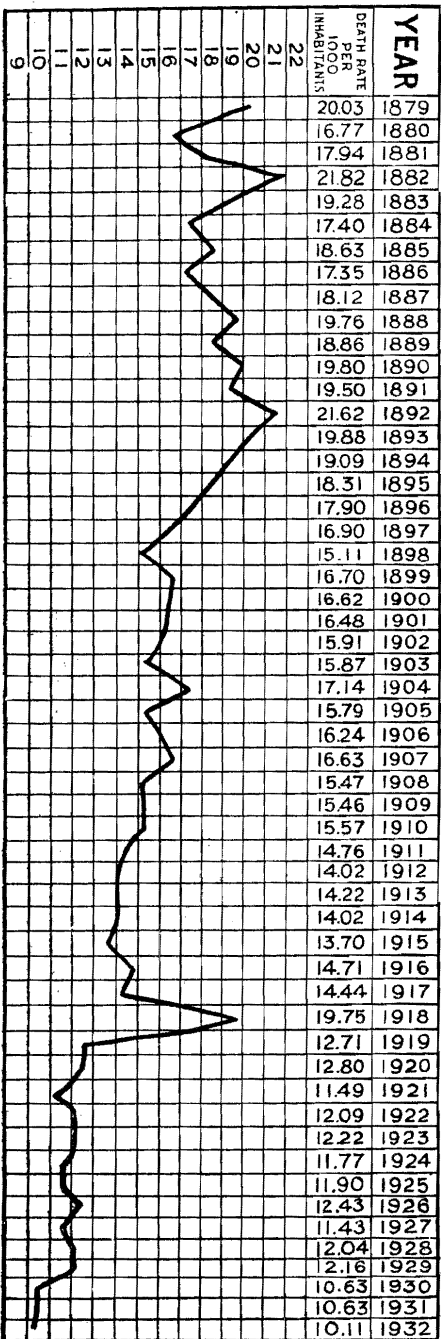
WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Township	11	...	5	...
Alpha Borough	28	15	21	4
Belvidere Town	29	16	34	1
Blairstown Township	16	5	22	...
Franklin Township	28	1	23	4
Frelinghuysen Township	13	4	10	...
Greenwich Township	19	12	13	2
Hackettstown Town	48	14	51	1
Hardwick Township	8	2	5	1
Harmony Township	19	2	19	1
Hope Township	7	3	9	...
Independence Township	8	5	14	...
Knowlton Township	13	6	21	...
Liberty Township	4	...	5	...
Lopatcong Township	13	1	13	...
Mansfield Township	12	6	17	2
Oxford Township	30	7	20	1
Pahaquarry Township	2	...	1	...
Phillipsburg Town	226	75	204	15
Pohatcong Township	28	9	21	...
Washington Borough	42	24	58	5
Washington Township	13	7	15	1
White Township	21	6	13	2
Total	638	220	614	40
State Total	61215	22840	42826	3089

TABLE 2.—TOTAL DEATHS BY AGE PERIODS SHOWING PERCENTAGE OF TOTAL DEATHS, 1932

	AGE PERIODS																	
	Total	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
Deaths	42,826	3,089	413	227	175	145	4,019	578	1,300	2,087	3,006	4,628	6,791	8,469	7,809	3,602	516	..
Percentage of total ..	100.0	7.2	1.0	0.5	0.4	0.3	9.4	1.4	3.0	4.9	7.0	10.8	15.9	19.8	18.2	8.4	1.2	..

CHART 1.—TOTAL DEATHS PER 1,000 POPULATION FOR 54 YEARS



Infant Mortality—The infant mortality rate for 1932 was 50.4 per 1,000 babies born alive. This was the lowest infant mortality rate attained in New Jersey. The previous low rate was 56.6 for 1930. The rate for 1931 was 56.9. 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 92.8. The colored races have shown high mortality rates ever since vital statistics were first collected and analyzed.

Maternal Mortality—This rate for 1932 was 5.7 and for 1931, 5.9. It is regrettable that a decrease comparable to the infant mortality decline has not been shown in deaths due to maternity. The colored maternal mortality rate was 6.3.

Stillbirths—The number of stillbirths reported for 1932 was 2,343. The number for the previous year was 2,578. The 1932 rate was 38.2 per 1,000 live births. The rate for the colored population was 55.4.

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TABLE 3—NUMBER OF DEATHS AT ALL AGES, UNDER ONE YEAR OF AGE AND UNDER FIVE YEARS OF AGE, AND THEIR PERCENTAGES OF TOTAL DEATHS

CALENDAR YEAR	DEATHS IN NEW JERSEY				
	All Ages	Under one year		Under five years	
		Number	Percentage of Total	Number	Percentage of Total
1904	35,298	7,472	21.2	10,927	31.0
1905	33,864	6,951	20.5	9,864	29.1
1906	35,670	7,773	21.8	11,246	31.5
1907	37,408	7,732	20.7	10,867	29.0
1908	35,597	7,823	22.0	10,869	30.5
1909	36,359	7,658	21.1	11,137	30.6
1910	39,494	8,352	21.1	11,648	29.5
1911	38,612	7,642	19.8	10,740	27.8
1912	37,772	7,457	19.7	10,309	27.3
1913	39,425	7,542	19.1	10,686	27.1
1914	39,967	7,431	18.6	10,278	25.7
1915	39,435	7,077	17.9	9,828	24.9
1916	43,376	7,348	16.9	11,188	25.8
1917	43,532	7,582	17.4	10,267	23.6
1918	60,852	8,372	13.8	13,709	22.5
1919	39,979	6,111	15.3	8,661	21.7
1920	40,820	6,672	16.3	9,569	23.4
1921	37,362	5,773	15.4	8,047	21.5
1922	40,086	5,864	14.6	8,371	20.9
1923	41,294	5,368	13.0	7,727	18.7
1924	40,531	5,359	15.5	7,344	21.3
1925	41,749	5,109	12.3	6,997	16.8
1926	44,396	5,090	11.5	7,442	16.8
1927	41,562	4,464	10.7	6,045	14.5
1928	44,555	4,600	10.3	6,438	14.4
1929	45,746	4,116	9.0	5,795	12.6
1930	43,190	3,870	9.0	5,205	12.1
1931	44,135	3,649	8.3	4,916	11.1
1932	42,826	3,089	7.2	4,049	9.4

CHART 2—DEATHS UNDER 5 YEARS OF AGE PER 10,000 TOTAL POPULATION FOR 54 YEARS

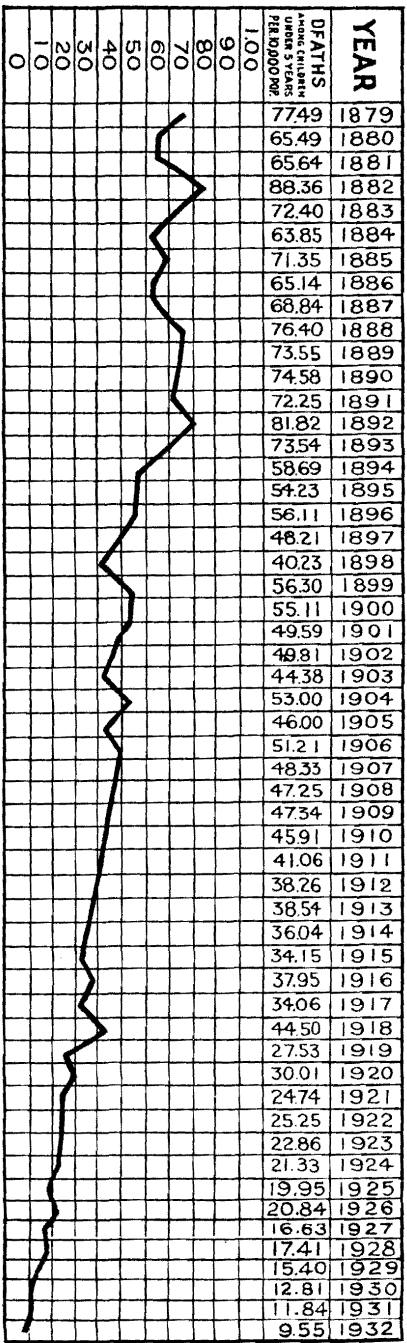


TABLE 4.—NUMBER OF BIRTHS, STILLBIRTHS, DEATHS UNDER ONE MONTH, DEATHS UNDER ONE YEAR AND MATERNAL DEATHS IN NEW JERSEY, WITH RATES PER 1,000 LIVE BIRTHS

<i>Year</i>	<i>Births Reported</i>	<i>Deaths Under 1 Year of Age</i>	<i>Rates per 1,000 Live Births</i>	<i>Deaths Under 1 Month of Age</i>	<i>Rates per 1,000 Live Births</i>	<i>Stillbirths</i>	<i>Rates per 1,000 Live Births</i>	<i>Maternal Deaths</i>	<i>Rates per 1,000 Live Births</i>
1906	42,677	7,773	182.1	2,545	59	2,399	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	2,655	56	2,617	55	329	6.9
1909	47,508	7,658	161.2	2,661	56	2,539	53	311	6.5
1910	53,942	8,352	154.8	2,801	51	2,737	50	377	6.9
1911	58,133	7,642	131.4	2,887	49	2,754	47	427	7.3
1912	60,073	7,457	124.1	2,836	47	2,953	49	415	6.9
1913	61,432	7,542	122.7	2,903	47	2,866	46	460	7.4
1914	65,403	7,431	113.6	2,995	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	75,309	7,582	100.7	3,256	43	3,183	42	411	5.4
1918	74,549	8,372	112.3	3,175	42	3,525	47	417	5.5
1919	70,935	6,111	86.1	2,696	38	3,047	42	366	5.1
1920	76,431	6,672	87.2	2,961	38	3,221	42	472	6.1
1921	78,172	5,773	73.8	2,830	36	3,242	41	464	5.9
1922	74,479	5,864	78.7	2,773	37	3,033	40	466	6.2
1923	74,611	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	2,607	35	3,010	40	461	6.2
1926	72,386	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	60.2	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

DEPARTMENT OF HEALTH

TABLE 5.—DEATHS UNDER ONE YEAR, DEATHS UNDER ONE MONTH, STILL-BIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS—1932

	<i>Rates per 1,000 live births</i>			
	<i>Deaths Under One Year</i>	<i>Deaths Under One Month</i>	<i>Stillbirths</i>	<i>Maternal Deaths</i>
New Jersey	50	29	38	5.7
Atlantic	73	43	34	4.9
Bergen	40	26	41	5.6
Burlington	66	39	44	8.5
Camden	62	35	37	6.8
Cape May	36	18	27	13.5
Cumberland	50	27	34	3.9
Essex	41	26	37	4.4
Gloucester	72	38	27	1.8
Hudson	51	26	42	6.1
Hunterdon	54	32	34	6.5
Mercer	61	33	39	6.3
Middlesex	51	31	41	4.2
Monmouth	48	28	30	8.4
Morris	46	28	32	3.5
Ocean	68	42	31	6.3
Passaic	49	28	37	7.1
Salem	84	43	43	3.4
Somerset	38	24	32	5.7
Sussex	59	29	59	12.8
Union	44	29	34	4.0
Warren	62	29	37	18.8

TABLE 6.—DEATHS UNDER ONE YEAR, DEATHS UNDER ONE MONTH, STILL-BIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS :
NEW JERSEY AND TEN LARGEST CITIES—1932

	<i>Rates per 1,000 live births</i>			
	<i>Deaths Under One Year</i>	<i>Deaths Under One Month</i>	<i>Stillbirths</i>	<i>Maternal Deaths</i>
New Jersey	50	29	38	5.7
Newark	44	26	42	4.5
Jersey City	61	29	43	5.9
Paterson	52	30	39	6.4
Trenton	65	36	44	6.3
Camden	72	39	44	5.7
Elizabeth	53	33	37	5.5
Bayonne	50	28	41	6.0
East Orange	48	40	30	2.3
Atlantic City	89	56	48	6.5
Passaic City	46	23	42	8.5

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TABLE 7.—BIRTHS, BIRTH RATES, DEATHS UNDER ONE YEAR AND INFANT MORTALITY RATES (EXCLUSIVE OF STILLBIRTHS)—1932

	<i>Births (Exclusive of of Still- births)</i>	<i>Birthrates per 1,000 Population</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
New Jersey	61,215	14.4	3,089	50
Atlantic County	1,813	13.5	134	73
Atlantic City	920	13.2	82	89
Hammonon	135	17.0	6	44
Pleasantville	174	13.5	16	91
Bergen County	5,319	13.3	215	40
Bergenfield	156	15.6	5	32
Cliffside Park	227	13.0	5	22
Englewood	273	14.2	16	58
Fairview	124	12.4	3	24
Fort Lee	106	11.2	3	28
Garfield	503	15.7	27	53
Hackensack	392	15.0	22	56
Lodi Borough	211	17.1	14	66
North Arlington	165	17.0	5	30
Ridgefield Park	136	12.0	5	36
Ridgewood Village	118	8.9	7	59
Rutherford Borough	137	8.5	5	36
Wallington Borough	150	15.3	6	40
Burlington County	1,403	14.5	93	66
Bordentown City	55	12.4	1	18
Burlington City	167	14.8	13	77
Camden County	3,794	14.2	237	62
Audubon	91	9.2	1	10
Camden City	1,916	16.0	138	72
Collingswood	146	10.7	9	61
Gloucester City	225	15.8	16	71
Haddonfield	114	11.9	5	43
Cape May County	442	13.9	16	36
Cumberland County	1,012	14.1	51	50
Bridgeton	260	16.2	16	61
Millville	201	13.6	12	59
Vineland	165	21.1	1	60

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	<i>Births (Exclusive of of Still- births)</i>	<i>Birthrates per 1,000 Population</i>	<i>Deaths Under One Year</i>	<i>Infant Mortality Rates</i>
Essex County	12,850	14.7	538	41
Belleville Town	461	15.6	17	36
Bloomfield	639	15.3	20	31
East Orange	864	12.0	42	48
Irvington	793	12.4	28	35
Montclair	521	11.5	21	40
Newark	7,257	16.1	324	44
Nutley	303	13.1	15	49
Orange	625	17.4	24	38
South Orange	138	9.1	6	43
West Orange	424	16.1	14	33
Gloucester County	1,109	14.6	80	72
Woodbury	132*	15.1	16	121
Hudson County	10,358	14.7	535	51
Bayonne	1,290	14.0	65	50
Guttenberg	93	14.2	7	75
Harrison	245	15.7	8	32
Hoboken	734	12.3	41	55
Jersey City	5,201	16.2	318	61
Kearny	609	13.9	23	37
Secaucus	89	9.1	6	66
Union City	772	13.1	29	37
West New York	556	14.3	10	17
Hunterdon County	460	13.0	26	54
Lambertville	53	11.7	4	75
Mercer County	2,981	15.4	182	61
Princeton Borough	112	15.4	4	35
Trenton	1,886	15.1	123	65
Middlesex County	3,283	14.7	170	51
Carteret	192	13.8	9	46
Highland Park	131	13.7	7	53
New Brunswick	559	15.9	19	33
Perth Amboy	620	14.1	46	74
Sayreville	159	17.7	6	37
South Amboy	131	15.2	3	22
South River	177	15.1	12	67

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	<i>Births</i> (<i>Exclusive of</i> <i>of Still-</i> <i>births</i>)	<i>Birthrates</i> <i>per 1,000</i> <i>Population</i>	<i>Deaths</i> <i>Under</i> <i>One Year</i>	<i>Infant</i> <i>Mortality</i> <i>Rates</i>
Monmouth County	2,242	14.3	109	48
Asbury Park	202	12.9	10	49
Long Branch	281	14.4	12	42
Red Bank	181	14.9	5	27
Morris County	1,708	14.6	80	46
Dover	163	16.1	10	61
Madison	136	17.1	10	73
Morristown	241	15.2	11	45
Ocean County	469	13.2	32	68
Passaic County	4,358	13.9	215	49
Clifton	682	13.2	30	43
Hawthorne	153	11.4	4	26
Passaic City	814	12.9	38	46
Paterson	2,011	14.4	105	52
Salem County	581	15.7	49	84
Salem City	119	14.5	10	84
Somerset County	1,047	15.1	40	38
Bound Brook	155	20.1	2	12
North Plainfield	134	12.9	7	52
Somerville	113	13.1	5	44
Sussex County	468	16.4	28	59
Union County	4,880	14.8	219	44
Elizabeth	1,807	15.2	96	53
Linden	400	16.6	22	55
Plainfield	566	15.7	32	56
Rahway	238	13.9	7	29
Roselle	214	14.6	9	42
Roselle Park	136	13.9	6	44
Summit	187	12.0	5	26
Westfield	212	12.2	9	42
Warren County	638	12.6	40	62
Phillipsburg	226	11.4	15	66

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Typhoid Fever—The death rate for this disease (including paratyphoid) for 1932 was only 0.07 per 10,000 population, which was the lowest rate ever attained in New Jersey. That the rate was indeed low was proven by the 1931 rate of 0.44 for the United States Registration Area. The rate for the Registration Area for 1932 was not available. The number of deaths from typhoid fever and other diseases of the international list of causes of death by counties and cities can be obtained by referring to Table 20. Table 22 shows the more important causes by sex, color and age groups.

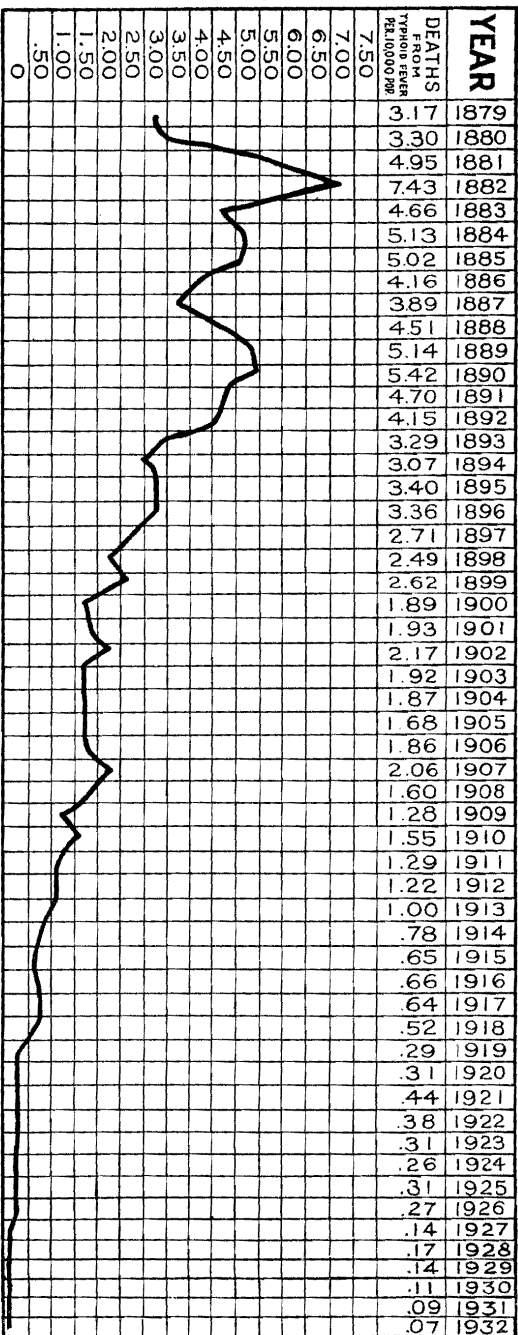
TABLE 8—COMPARATIVE DEATH RATES FROM TYPHOID FEVER PER 10,000 INHABITANTS, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Registration area of the United States	0.75	0.68	0.67	0.80	0.65	0.55	0.49	0.42	0.48	0.44
New Jersey	0.38	0.31	0.26	0.31	0.27	0.14	0.17	0.14	0.11	0.09

TABLE 9—URBAN AND RURAL DEATHS FROM TYPHOID FEVER—1932

	Estimated population	Deaths from typhoid fever	Rate per 10,000 population
State	4,235,698	31	0.07
Municipalities having 5,000 or more inhabitants in 1930	3,079,428	22	0.07
Remainder of State	1,156,270	9	0.07

CHART 3—DEATHS FROM TYPHOID FEVER PER 10,000 POPULATION FOR 54 YEARS



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

COUNTIES	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlantic County	0.34	.....	0.44	0.97	0.53	0.21	0.10	0.31	0.15	0.22
Bergen County	0.12	0.28	0.23	0.26	0.07	0.18	0.07	.....	0.07	.....
Burlington County	0.45	0.56	0.44	0.54	0.32	0.31	0.31	0.31	0.10	0.31
Camden County	0.19	0.42	0.36	0.35	0.08	0.47	0.29	0.19	0.07	0.15
Cape May County	.....	0.51	.....	0.51	0.54	.....	.....	0.33	.....	.....
Cumberland County	0.31	0.31	1.07	0.15	.....	0.14	0.14	.....	0.14	0.13
Essex County	0.22	0.26	0.13	0.16	0.15	0.09	0.13	0.08	0.07	0.05
Gloucester County	0.95	0.37	0.91	0.90	.....	0.51	0.33	.....	0.27	0.28
Hudson County	0.22	0.19	0.32	0.18	0.09	0.09	0.09	0.07	.....	0.02
Hunterdon County	.....	0.91	0.69	.....	0.30	0.30	.....	.....	.....	.....
Mercer County	0.87	0.22	0.39	0.49	0.10	0.13	0.15	0.15	0.15	0.05
Middlesex County	0.55	0.27	0.31	0.41	0.10	0.09	0.19	0.18	0.13	0.13
Monmouth County	0.55	0.36	0.36	0.26	0.26	0.70	0.17	0.33	0.26	0.31
Morris County	0.93	.....	0.34	.....	0.11	0.22	.....	0.08	0.08	.....
Ocean County	.....	0.44	.....	0.88	.....	.....	.....	0.29	0.29	.....
Passaic County	0.14	0.21	0.24	0.06	0.03	0.10	0.23	.....	0.19	0.06
Salem County	.....	0.24	0.47	0.23	0.45	0.22	.....	0.27	.....	.....
Somerset County	.....	0.95	0.94	0.18	0.36	0.35	.....	0.45	.....	.....
Sussex County	1.20	.....	0.40	.....	.....	0.40	0.40	.....	.....	.....
Union County	0.31	0.21	0.34	0.41	0.12	0.11	0.11	0.09	0.18	.....
Warren County	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The State	0.31	0.26	0.31	0.27	0.14	0.17	0.14	0.11	0.09	0.07

Malaria—As the following figures show, deaths during recent years from this affection are practically negligible in this State:

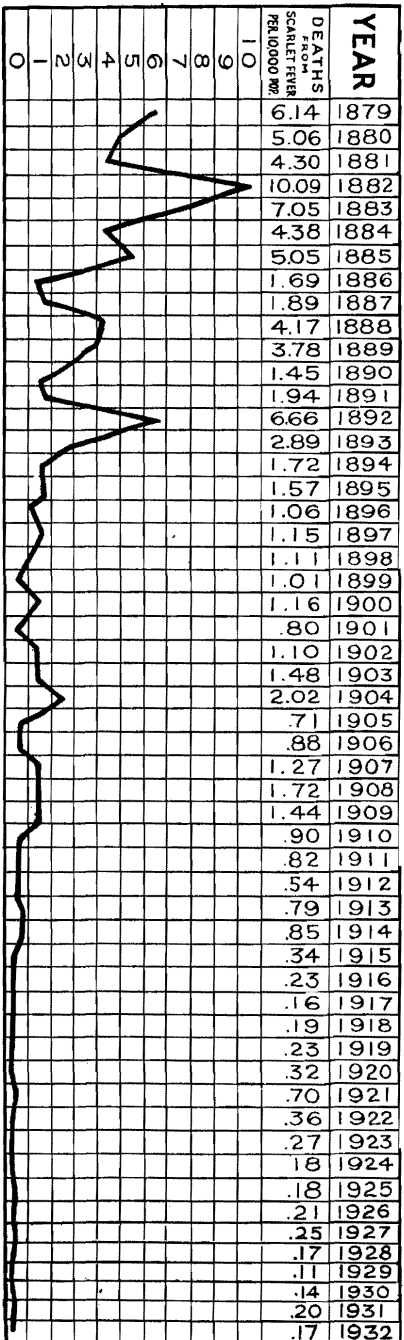
1879	268	1892	198	1905	21	1919	2
1880	293	1893	148	1906	33	1920	5
1881	431	1894	162	1907	29	1921	10
1882	379	1895	144	1908	30	1922	3
1883	290	1896	119	1909	25	1923	2
1884	230	1897	132	1910	25	1924	6
1885	209	1898	82	1911	25	1925	3
1886	243	1899	96	1912	29	1926	2
1887	217	1900	84	1913	11	1927	2
1888	264	1901	50	1914	10	1928	3
1889	203	1902	36	1915	17	1929	5
1890	195	1903	40	1916	10	1930	5
1891	180	1904	47	1917	5	1931	0
				1918	13	1932	3

Smallpox—During 1926, 1927, 1928, 1929, 1930, 1931 and 1932, no deaths from smallpox occurred in New Jersey. During the two years previous to 1926 deaths occurred as the disease was prevalent in epidemic form in certain sections of the State.

Measles—This disease was responsible for 41 deaths in 1932. During the preceding year a total of 95 deaths occurred. In 1929 there were only 33 deaths from measles.

Scarlet Fever—Very little variation was noted in the death rate from this disease for the past ten years. The average rate for the period was about one half the rate which prevailed during the previous decade.

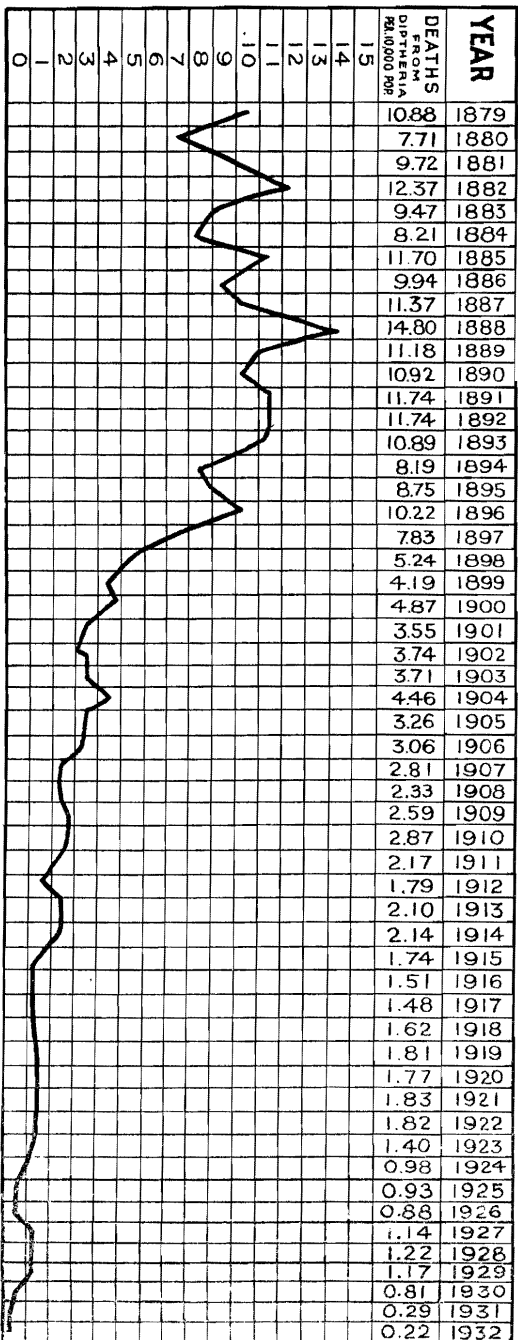
CHART 4—DEATHS FROM SCARLET FEVER PER 10,000 POPULATION FOR 54 YEARS



Whooping Cough—This disease caused 123 deaths in 1932; for 1931 the number was 136 and for 1930, 90.

Diphtheria—During 1932 only 97 persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.22 per 10,000 population, compared with 0.29 for the previous year and 0.81 for 1930. The death rate from diphtheria for 1888 was 14.8 per 10,000 population. During the decade beginning with 1900 the rate declined from 4.8 to 2.5. The following ten year period showed a decline to 1.8. The rate for 1932 was the lowest recorded.

CHART 5—DEATHS FROM DIPHTHERIA PER 10,000 POPULATION FOR 54 YEARS



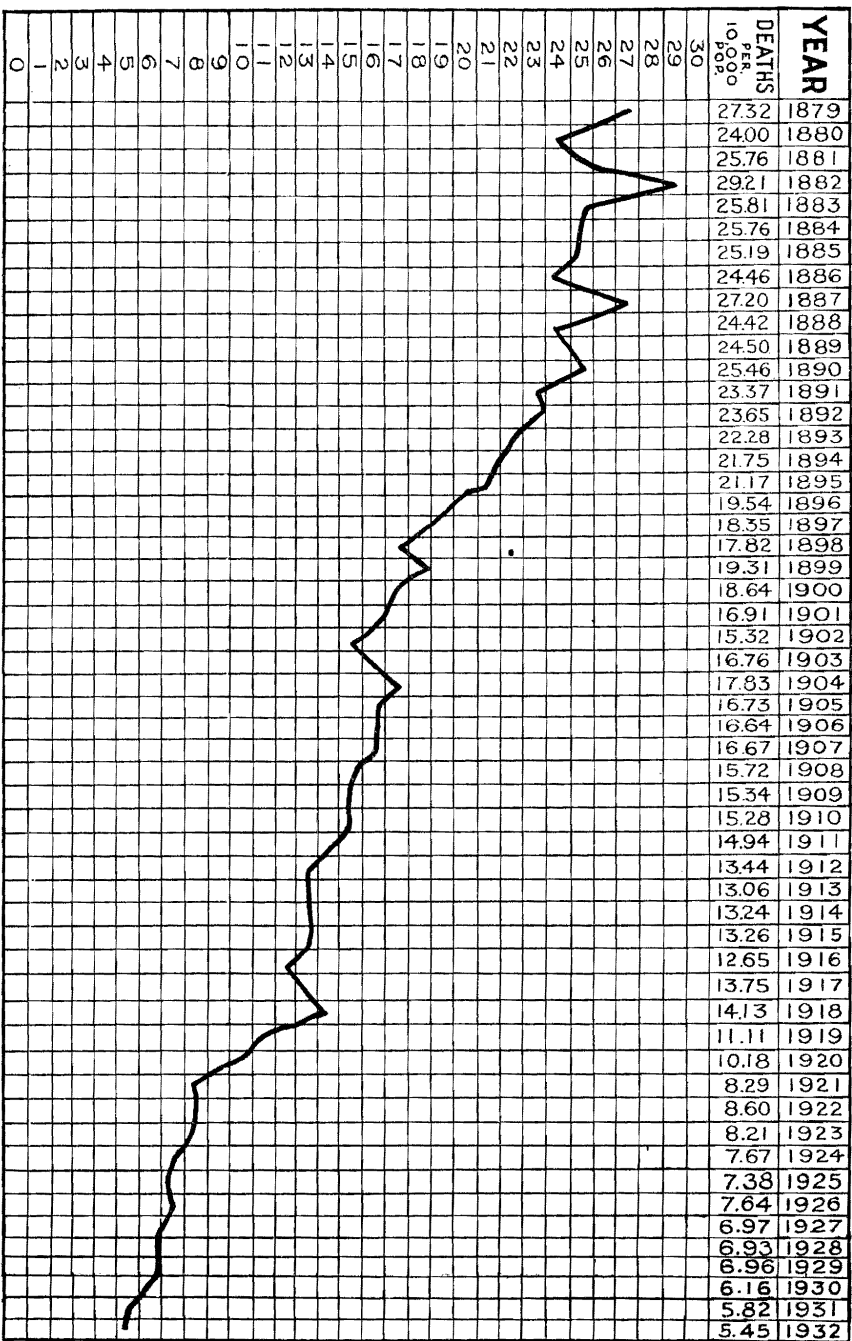
Tuberculosis—The number of deaths from all forms of tuberculosis during 1932 was 2,569. The number of deaths from tuberculosis of the respiratory system was 2,311. The death rates per 10,000 population were 6.06 and 5.45 respectively. These were the lowest tuberculosis death rates recorded in New Jersey.

TABLE 11.—AVERAGE ANNUAL DEATH RATES FROM ALL CAUSES AND FROM TUBERCULOSIS OF LUNGS, PER 10,000 POPULATION, FOR 54 YEARS, COMPARED WITH RATES FOR 1932

COUNTIES	Average annual death rates from all causes	Death rates from all causes, 1932	*Average annual death rates from tuberculosis of lungs	*Death rates from tuberculosis of lungs, 1932
Atlantic County	155	124	12.0	6.2
Bergen County	122	83	10.5	4.3
Burlington County	147	115	13.2	5.9
Camden County	158	110	14.9	5.3
Cape May County	143	136	9.8	2.8
Cumberland County	109	123	14.1	5.0
Essex County	149	97	16.4	6.5
Gloucester County	140	117	12.1	4.8
Hudson County	161	98	16.8	6.0
Hunterdon County	142	135	11.7	3.4
Mercer County	151	109	16.0	7.3
Middlesex County	137	85	11.5	5.1
Monmouth County	152	129	12.3	5.5
Morris County	121	104	13.9	4.7
Ocean County	146	123	14.5	5.0
Passaic County	142	94	13.3	3.9
Salem County	137	121	13.0	3.2
Somerset County	133	97	10.9	4.4
Sussex County	126	116	11.1	2.8
Union County	125	88	11.5	4.7
Warren County	140	122	10.9	2.5
The State	146	101	14.2	5.4

* It should be noted that these rates are for tuberculosis of the respiratory system. Rates of all forms of tuberculosis appear among the tables of the Bureau of Local Health Administration.

CHART 6—DEATHS FROM TUBERCULOSIS OF LUNGS PER 10,000 POPULATION FOR 54 YEARS

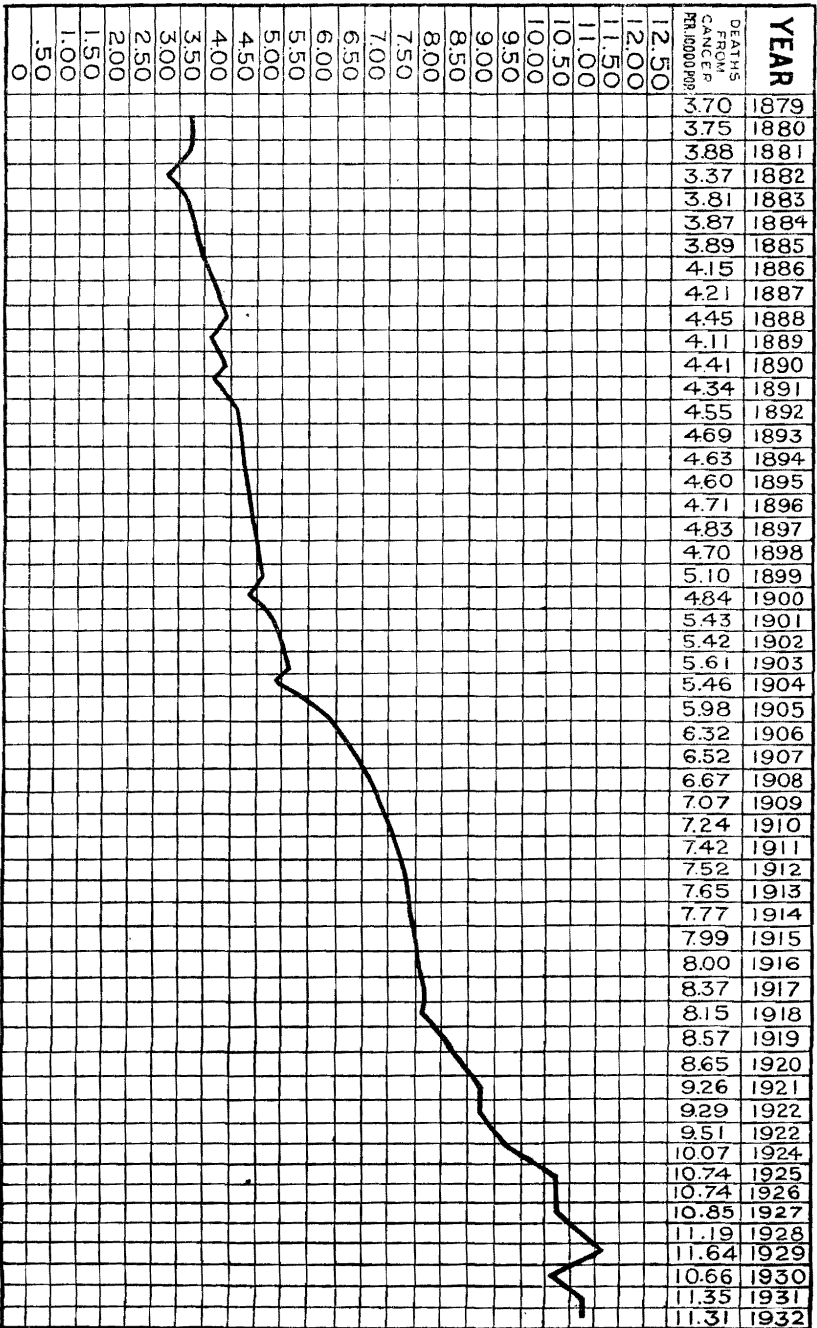


Cancer—The death rate from cancer and other malignant growths for 1932 was 11.31 per 10,000 population compared with 11.35 for the previous year. The mortality from this disease, with few exceptions, has steadily increased during the fifty-four years recorded in New Jersey.

TABLE 12.—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY ORGAN AFFECTED: NEW JERSEY, 1932

CANCER AND OTHER MALIGNANT TUMORS	AGE PERIODS																	Total				
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79		80 to 84	85 to 89	90 and over	
Buccal Cavity—																						
Male							2	...	2	3	8	15	16	14	16	25	9	6	3	1	120	
Female							2	...	2	3	1	2	3	1	3	4	1	3	...	20	20	
Total							3	...	2	3	9	17	19	15	17	28	13	7	6	1	140	
Stomach, Liver—																						
Male				1	...	1	2	7	13	31	50	88	115	147	124	120	68	35	6	...	808	
Female .....				...	...	1	4	5	15	21	45	56	93	89	115	97	60	39	15	3	658
Total				1	...	2	6	12	28	52	95	144	208	236	239	217	128	74	21	3	1466	
Peritoneum, Intestines, Rectum—																						
Male				2	...	4	2	5	10	13	27	36	57	79	58	53	42	13	5	...	406	
Female .....				...	...	1	6	7	16	17	15	47	61	74	73	66	64	39	11	2	499
Total				2	...	5	8	12	26	30	42	83	118	153	131	119	106	52	16	2	905	
Female genital organs						6	11	23	43	57	69	87	72	87	60	54	40	16	5	2	632	
Breast—																						
Male									1	...	2	...	2	3	1	...	...	...	...	...	9
Female						2	...	1	10	26	44	72	71	68	61	73	36	26	10	9	4	513
Total						2	...	1	10	27	44	74	71	70	64	74	36	26	10	9	4	522
Skin																						
Male						1	...	...	...	1	2	2	3	6	5	7	10	4	5	...	46
Female	1	...	2	1	2	1	3	2	5	2	3	1	2	25
Total						1	...	1	...	2	3	4	4	9	7	12	12	7	6	2	71	71
Other organs and organs not specified—																						
Male		3	6	4	6	6	4	11	21	39	45	62	85	106	100	92	60	38	7	2	697	
Female	1	4	5	1	6	6	7	6	11	16	37	20	36	37	48	50	41	19	4	3	358	
Total	1	7	11	5	12	12	11	17	32	55	82	82	121	143	148	142	101	57	11	5	1055	
Total Male		3	6	7	6	12	10	23	47	87	134	203	278	355	304	297	189	96	26	3	2086	
Total Female	1	4	5	1	8	14	30	52	111	157	240	285	334	352	372	311	237	127	48	16	2705	
Total Male and Female	1	7	11	8	14	26	40	75	158	244	374	488	612	707	676	608	426	223	74	19	4791	

CHART 7—DEATHS FROM CANCER PER 10,000 POPULATION FOR 54 YEARS



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Encephalitis Lethargica or Sleeping Sickness—Thirty-five deaths were assigned to this affection for the year 1932. In 1922, which was the first year that the disease was separately classified, there were forty-five deaths, while for 1931, 37 deaths were recorded.

Bright's Disease—Deaths due to acute and chronic nephritis totaled 3,865, compared with 3,941 for the previous year.

Suicide—Deaths by this means increased considerably during the years 1927 to 1932. Of the various means employed poisonous gas was responsible for the most deaths with firearms and hanging in second and third places. The number of deaths by suicide for six years follows:

1927	505	1930	601
1928	565	1931	694
1929	622	1932	740

TABLE 13.—DEATHS BY SUICIDE: NEW JERSEY, 1932

MODE OF DEATH	AGE PERIODS														Total			
	0 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	Not stated
Solid or liquid poisons—																		
Male .....	...	3	...	1	3	6	3	4	4	6	3	1	...	...	...	...	...	34
Female .....	...	1	3	3	5	...	...	1	...	...	...	1	...	...	...	...	...	14
Total .....	...	4	3	4	8	6	3	5	4	6	3	2	...	...	...	...	...	48
Corrosive substances —																		
Male .....	...	...	...	1	1	2	6	6	3	5	3	1	1	...	...	...	...	29
Female	1	...	3	2	2	3	4	...	4	...	1	1	...	...	...	1	...	20
Total	1	...	3	3	3	5	10	6	5	5	4	2	1	...	...	1	...	49
Poisonous gas—																		
Male .....	...	1	4	13	10	11	16	21	28	33	14	10	5	5	1	2	...	174
Female .....	...	...	2	6	4	6	8	6	6	5	4	4	5	1	...	...	...	57
Total .....	...	1	6	19	14	17	24	27	34	38	18	14	10	6	1	2	...	231
Hanging or strangulation—																		
Male	2	1	3	5	6	8	11	24	23	17	10	13	9	3	3	...	...	138
Female	1	1	1	3	2	2	1	2	2	2	2	...	1	...	...	...	...	18
Total	2	2	4	6	9	10	13	25	25	19	12	13	10	3	3	...	...	156
Drowning—																		
Male .....	...	1	...	...	2	6	1	2	4	3	...	...	...	1	1	...	...	21
Female .....	...	...	1	...	...	...	1	1	1	2	1	2	...	...	...	...	...	9
Total .....	...	1	1	...	2	6	2	3	5	5	1	2	...	1	1	...	...	30
Firearms—																		
Male	1	...	10	13	8	16	14	17	25	17	16	12	4	4	1	...	...	158
Female .....	...	...	...	2	...	3	...	2	...	...	1	1	...	...	...	...	...	9
Total	1	...	10	15	8	19	14	19	25	17	17	13	4	4	1	...	...	167

Cutting or piercing instruments—																		
Male .....	...	...	...	1	4	2	...	3	4	2	...	1	...	1	...	...	...	18
Female .....	...	...	...	...	1	1	...	2	...	2	...	...	...	...	...	...	...	3
Total .....	...	...	...	1	4	3	...	5	4	2	...	1	...	1	...	...	...	21
Jumping from high places—																		
Male .....	...	...	...	1	3	2	4	5	1	1	...	1	...	1	1	...	...	20
Female .....	...	1	...	1	1	...	1	...	3	...	2	...	...	...	...	...	...	9
Total .....	...	1	...	2	4	2	5	5	4	1	2	1	...	1	1	...	...	29
Crushing—																		
Male .....	...	...	1	...	1	...	1	1	...	...	1	1	1	...	...	...	...	7
Female .....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Total .....	...	...	1	...	2	...	1	1	...	...	1	1	1	...	...	...	...	8
Others—																		
Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female .....	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Total .....	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Total Male	3	6	18	35	38	53	56	83	92	84	47	40	20	15	7	2	...	599
Total Female	1	3	10	15	16	16	16	13	14	9	11	9	6	1	...	1	...	141
Total Male and Female	4	9	28	50	54	69	72	96	106	93	58	49	26	16	7	3	...	740

AUTOMOBILE FATALITIES

Deaths due to accidents in which moving automobiles were involved total 1,158 compared with 1,302 for 1931. The figures include 10 deaths due to motorcycle accidents and 19 deaths of bicyclists who were struck by automobiles, but are exclusive of 35 accidental deaths due to the inhalation of motor exhaust.

Analyzed the motor fatality data show the death of 620 pedestrians, which number is equivalent to 53 per cent of the total. More than one fourth of the pedestrians who died were children under fifteen years of age. Sixteen per cent of the drivers and occupants of automobiles who were killed were less than twenty years of age.

The following table shows deaths, in New Jersey, of both residents and non-residents of the State, arranged by age groups :

MOTOR VEHICLE FATALITIES BY AGE PERIODS, 1932

Age	<i>Pedestrians Struck by Motor Vehicles</i>		<i>Deaths From Other Motor Vehicle Accidents</i>		<i>Totals</i>	
	<i>Non-</i>		<i>Non-</i>		<i>Non-</i>	
	<i>Residents</i>	<i>Residents</i>	<i>Residents</i>	<i>Residents</i>	<i>Residents</i>	<i>Residents</i>
Under 5 years ..	46	2	4	3	50	5
5 to 9	75	4	7	3	82	7
10 to 14	47	0	15	2	62	2
15 to 19	12	1	46	8	58	9
20 to 24	8	0	61	9	69	9
25 to 29	12	1	38	14	50	15
30 to 34	10	1	29	18	39	19
35 to 39	17	7	47	10	64	17
40 to 44	35	3	37	7	72	10
45 to 49	38	5	30	4	68	9
50 to 54	39	6	24	5	63	11
55 to 59	55	7	27	5	82	12
60 to 64	55	3	27	7	82	10
65 to 69	53	1	19	1	72	2
70 and over	73	4	29	2	102	6
Totals	575	45	440	98	1,015	143

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MOTOR VEHICLE FATALITIES BY SEX, COLOR AND TYPE OF ACCIDENT, 1932

	<i>Males</i>		<i>Females</i>	
	<i>White</i>	<i>Colored</i>	<i>White</i>	<i>Colored</i>
Pedestrians	412	29	164	15
Collison, auto and train or engine	29	2	13	1
Collison, auto and street car	0	0	2	0
Collison, auto with stationary objects ..	157	12	53	3
Collison, auto with another motor vehicle	157	7	71	2
Collison, auto with bicycle	19	0	0	0
Motorcycle accident	8	0	2	0
Total	782	50	305	21

MOTOR VEHICLE FATALITIES BY MONTHS OF DEATH, 1932

January	82	July	76
February	86	August	126
March	93	September	122
April	91	October	110
May	87	November	119
June	80	December	86
Total			1,158

TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL IN NEW JERSEY—1932

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Males—Percentage of Total	Females—Percentage of Total
1	Typhoid fever .....	.1	48	52
2	Typhus fever .....	..	..	..
3	Malaria .....	..	33	67
4	Smallpox .....	..	..	..
5	Measles .....	.1	61	39
6	Scarlet fever .....	.2	45	55
7	Whooping cough .....	.3	41	59
8	Diphtheria and croup .....	.2	47	53
9	Influenza	1.4	46	54
10	Asiatic cholera .....	..	..	..
11	Cholera nostras .....	..	..	..
12	Other epidemic diseases .....	.4	49	51
13	Tuberculosis of the lungs	5.4	59	41
14	Tuberculosis meningitis .....	.2	50	50
15	Other forms of tuberculosis .....	.4	53	47
16	Cancer and other malignant tumors	11.2	44	56
17	Simple meningitis .....	.2	40	60
18	Cerebral haemorrhage and softening	7.7	46	54
19	Organic diseases of the heart	22.9	52	48
21	Bronchitis .....	.4	49	51
22	Pneumonia	4.1	55	45
23	Other diseases of the respiratory system (tuberculosis and broncho pneumonia excepted) .....	.7	63	37
23a	Broncho pneumonia	2.7	53	47
24	Diseases of the stomach (cancer excepted) .....	.8	78	22
25	Diarrhoea and enteritis (under 2 years) .....	.6	56	44
26	Appendicitis and typhlitis	1.2	61	39
27	Hernia, intestinal obstruction .....	.9	52	48
28	Cirrhosis of the liver .....	.8	62	38
29	Acute nephritis and Bright's disease	9.0	49	51
30	Noncancerous tumors and other diseases of the female genital organs .....	.5	..	100
31	Puerperal septicaemia (puerperal fever, peritonitis) .....	.3	..	100
32	Other puerperal accidents of pregnancy and labor .....	.5	..	100
33	Congenital debility and malformations	3.9	57	43
34	Senility .....	.3	37	63
36	Suicide	1.7	81	19
35	Violent deaths (suicide excepted)	6.5	69	31
37	Other diseases	14.3	52	48
38	Unknown or ill-defined diseases .....	.1	70	30
	Total	100.0	52.2	47.8

TABLE 16.—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATH: NEW JERSEY—1932

Abridged International List Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
1	Typhoid fever	31	4	1	.....	.....	2	1	1	8	2	6	3	3
2	Typhus fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Malaria	3	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....
4	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles	41	1	1	5	7	14	4	1	1	.....	.....	3	4
6	Scarlet fever	73	4	1	9	12	12	6	2	5	3	4	10	5
7	Whooping cough	123	12	12	32	11	11	13	6	7	6	6	1	6
8	Diphtheria and croup	97	10	11	8	10	13	3	6	5	3	7	9	12
9	Influenza	595	40	60	211	100	41	16	11	6	3	21	30	56
10	Asiatic cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Cholera nostras	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases	181	14	16	20	17	8	13	10	22	23	16	4	18
13	Tuberculosis of the lungs	2311	203	202	230	211	226	208	181	182	167	160	165	176
14	Tuberculosis meningitis	86	8	3	7	11	9	11	5	7	5	8	8	4
15	Other forms of tuberculosis	172	13	17	17	21	11	10	15	17	11	14	14	12
16	Cancer and other malignant tumors	4791	361	376	429	400	381	391	407	416	383	490	400	447
17	Simple meningitis	87	13	11	7	9	4	7	2	6	7	7	7	11
18	Cerebral haemorrhage and softening	3300	269	274	379	312	254	276	229	218	213	282	278	316
19	Organic diseases of the heart	9806	909	854	1076	908	818	755	662	674	647	756	794	953
21	Bronchitis	154	16	9	28	15	18	8	8	5	8	11	11	17
22	Pneumonia	1765	226	183	353	196	135	77	53	45	55	98	131	213
23	Other diseases of the respiratory system (tuberculosis and broncho pneumonia excepted)	289	24	25	26	19	22	29	20	17	21	34	23	29
23a	Broncho pneumonia	1166	98	118	196	116	108	59	46	32	47	77	91	178
24	Diseases of the stomach (cancer excepted)	343	32	24	38	21	32	18	26	25	42	26	26	39
25	Diarrhoea and enteritis (under 2 years)	237	14	10	28	13	21	8	13	27	34	25	21	23
26	Appendicitis and typhlitis	531	43	39	51	44	52	33	53	60	39	40	40	37
27	Hernia, intestinal obstruction	381	35	29	29	32	34	33	37	27	32	36	32	24
28	Cirrhosis of the liver	359	36	34	36	31	34	19	22	29	25	36	30	27
29	Acute nephritis and Bright's disease	3865	321	325	488	332	314	265	253	267	310	302	299	389
30	Noncancerous tumors and other diseases of the female genital organs	194	13	19	18	21	21	22	12	15	15	14	13	11
31	Puerperal septicemia (puerperal fever, peritonitis)	124	16	7	9	14	8	17	11	12	6	5	6	13
32	Other puerperal accidents of pregnancy and labor	227	17	27	23	19	26	19	14	22	10	16	16	18
33	Congenital debility and malformations	1657	145	119	127	142	148	146	149	137	143	126	130	145
34	Senility	137	12	18	15	12	13	6	6	9	6	8	14	18
36	Suicide	749	66	51	51	68	62	66	75	52	65	44	71	69
36	Violent deaths (suicide excepted)	2805	205	231	266	223	226	210	273	260	234	266	259	212
37	Other diseases	6122	488	480	642	544	542	480	440	458	462	464	497	616
38	Unknown or ill-defined diseases	33	3	4	8	3	1	2	1	2	3	1	3	2
	Total	42826	3671	3600	4862	3894	3622	3231	3050	3075	3027	3251	3440	4108

TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS), FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX, AND COLOR IN NEW JERSEY, 1932

CAUSE OF DEATH, SEX, AND COLOR	AGE PERIODS—YEARS																			Age unknown							
	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	
All causes	42826	3089	413	227	175	145	4049	578	545	755	1013	1074	1281	1725	2066	2562	3128	3663	4164	4266	4235	3574	2419	1183	516	...	
Both sexes—White	39389	2664	343	208	157	130	3502	532	496	659	854	867	1043	1484	1811	2399	2812	3405	3914	4122	4112	3472	2356	1155	489	...	
Both sexes—Colored	3437	425	70	19	18	15	547	46	49	96	159	207	235	241	255	263	316	258	250	174	123	102	63	28	27	...	
Males—White	20579	1512	179	107	88	74	1969	286	291	361	421	417	534	784	1065	1345	1677	1930	2129	2141	1997	1619	1028	455	139	...	
Males—Colored	1781	221	37	11	13	8	296	22	27	42	74	97	127	129	137	133	165	141	141	87	64	50	27	15	16	...	
Females—White	18810	1152	164	101	69	56	1542	246	205	298	433	450	514	700	746	954	1135	1475	1785	1981	2115	1853	1328	700	330	...	
Females—Colored	1653	204	33	8	5	7	257	24	22	54	85	110	166	112	118	130	151	117	109	87	59	52	36	13	11	...	
1 Typhoid fever—																											
Total	31					1	1	3	2	2	3	2	3	7	2		1		4	1							
Males—White	12							1			1			4	2		1		2	1							
Males—Colored	3								1					2													
Females—White	12							2	1		1	2	3	1				2									
Females—Colored	4					1	1			2																	
2 Typhus fever—																											
Total																											
Males—White																											
Males—Colored																											
Females—White																											
Females—Colored																											
3 Malaria—																											
Total	3															1	1	1									
Males—White	1																1										
Males—Colored																											
Females—White	2															1		1									
Females—Colored																											
4 Smallpox—																											
Total																											
Males—White																											
Males—Colored																											
Females—White																											
Females—Colored																											

TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS) FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX, AND COLOR IN NEW JERSEY, 1932—Continued

CAUSE OF DEATH, SEX, AND COLOR	AGE PERIODS—YEARS																										
	All deaths	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over	Age unknown	
21 Bronchitis—																											
Total	154	30	3	1	2	1	37	1	-1	1	2	2	1	2	5	7	5	6	10	12	13	16	18	5	9	...	
Males—White	70	15	1	...	...	1	18	1	...	...	1	2	...	2	...	4	4	4	6	2	9	5	7	1	1	...
Males—Colored	5	3	...	...	1	...	4	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Females—White	73	11	1	1	...	...	9	...	1	1	2	...	1	...	2	2	1	2	4	10	4	11	11	4	6	...
Females—Colored	6	3	1	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22 Pneumonia—																											
Total	1765	149	58	25	18	12	262	35	27	62	49	61	85	111	124	132	121	143	129	126	106	97	51	34	10	...	
Males—White	851	80	25	9	10	7	131	17	7	34	25	21	42	52	59	72	63	74	56	64	41	51	19	16	1	...	
Males—Colored	121	12	4	3	4	...	23	2	1	3	4	4	7	12	16	12	12	5	7	6	2	2	2	1	2	...	
Females—White	694	46	21	12	3	5	87	15	17	24	16	24	28	38	41	41	58	60	52	50	40	40	30	16	7	...	
Females—Colored	99	11	3	1	1	...	21	1	2	1	4	12	8	9	8	7	5	6	6	4	1	1	2	1	1	...	
23a Broncho pneumonia—																											
Total	1166	387	92	22	13	8	522	26	8	9	22	17	22	16	29	27	40	56	57	69	74	59	51	41	21	...	
Males—White	550	183	39	12	6	4	244	10	5	5	7	11	7	7	18	15	22	32	30	37	30	28	22	13	7	...	
Males—Colored	72	30	10	2	3	...	45	2	...	...	3	2	5	1	2	2	3	2	2	1	1	1	2	1	1	...
Females—White	483	140	34	7	3	4	188	14	3	2	12	3	10	8	...	10	13	19	24	20	41	31	27	27	14	...	
Females—Colored	61	34	9	1	1	...	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23 Other diseases of the respiratory system (tuberculosis and broncho pneumonia excepted)—																											
Total	289	12	4	6	2	2	26	5	10	11	12	6	6	13	21	28	19	29	21	22	18	13	14	7	8	...	
Males—White	168	5	2	4	2	1	14	1	5	7	5	3	3	7	18	22	13	12	11	16	14	8	4	4	1	...	
Males—Colored	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Females—White	98	6	2	2	...	1	11	4	5	4	6	1	1	2	2	5	5	12	10	4	4	5	9	3	5	...	
Females—Colored	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24 Diseases of the stomach (cancer excepted)—																											
Total	343	10	...	1	...	1	12	1	...	4	5	16	16	27	35	45	40	33	31	27	24	11	5	9	2	...	
Males—White	251	4	...	1	...	...	5	1	...	2	2	15	12	19	29	38	31	25	24	20	14	8	3	5	1	...
Males—Colored	17	1	...	...	...	...	1	...	...	...	1	1	5	2	1	1	1	2	...	...	...	...	...	...	...	...
Females—White	66	5	...	...	...	1	6	...	...	2	1	...	2	6	6	6	6	7	...	4	10	3	2	3	1	...
Females—Colored	9	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	...	3	...	...	...	...	...	...

TABLE 17—DEATHS (EXCLUSIVE OF STILLBIRTHS) FROM EACH CAUSE OF THE ABRIDGED INTERNATIONAL LIST, BY AGE, SEX, AND COLOR IN NEW JERSEY, 1932—Continued

CAUSE OF DEATH, SEX, AND COLOR	AGE PERIODS—YEARS																			Age unknown							
	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	
32 Other puerperal accidents of pregnancy and labor—																											
Total	227									18	34	51	51	56	17												
Females—White	205									13	28	45	49	53	17												
Females—Colored	22									5	6	6	2	3													
33 Congenital debility and malformations—																											
Total	1657	1655	10	4	3	3	1655	2																			
Males—White	841	831	2	4	3	3	840	1																			
Male—Colored	105	104	1				105																				
Females—White	624	614	6			3	623	1																			
Females—Colored	87	86	1				87																				
34 Senility—																											
Total	137														1		1	2	7	16	17	41	30	22			
Males—White	8														1		1	2	2	5	6	12	10	7			
Males—Colored	2																										
Females—White	5																	1	3	6	9	15	20	15			
Females—Colored	4																				2	5	1	1			
36 Suicide—																											
Total	740								4	9	28	50	54	69	72	96	106	93	58	49	26	16	1	3			
Males—White	589								3	6	16	34	36	51	55	83	92	84	46	40	20	14	1	2			
Male—Colored	10										2	1	2	3	1												
Females—White	139									3	10	15	16	16	16	12	14	9	11	9	6	1	1	1			
Females—Colored	2															1											
35 Violent deaths (suicide excepted)—																											
Total	2803	44	34	37	47	34	196	142	133	139	184	138	143	171	205	189	179	190	186	169	128	125	99	60	29		
Males—White	1763	19	16	18	21	22	96	88	96	107	123	89	94	120	157	144	131	137	119	99	59	54	30	16	6		
Males—Colored	156	2	1		2	3	8	3	7	6	17	26	19	14	14	10	7	9	6	6	2	1	1	1			
Females—White	821	22	17	18	22	9	87	43	28	25	37	18	21	32	31	33	35	39	52	62	67	69	69	43	23		
Females—Colored	63	1		1	2		4	8	2	1	7	5	9	5	3	2	6	5	3	2		1					

TABLE 18.—DEATHS (exclusive of stillbirths) BY CAUSES, BY DAYS, WEEKS AND MONTHS OF THE FIRST YEAR OF LIFE, IN NEW JERSEY—1932

Abridged International List Number	CAUSE OF DEATH	AGE UNDER 1 YEAR, IN COMPLETED DAYS, WEEKS AND MONTHS																			
		Under 1 Year	DAYS				WEEKS				MONTHS										
			Under 1	One	Two	3 to 6	Under 1	One	Two	Three	Under 1	One	Two	3 to 5	6 to 8	9 to 11					
1	Typhoid fever																				
2	Typhus fever																				
3	Malaria																				
4	Smallpox																				
5	Measles	10																			4
6	Scarlet fever	5						1													4
7	Whooping cough	71								1											13
8	Diphtheria and croup	8																			1
9	Influenza	33																			7
10	Asiatic cholera																				
11	Cholera nostras																				
12	Other epidemic diseases	24						3	1												5
13	Tuberculosis of the lungs	9						1													1
14	Tuberculosis meningitis	10																			4
15	Other forms of tuberculosis	10																			3
16	Cancer and other malignant tumors	1																			
17	Simple meningitis	12						1													2
18	Cerebral hemorrhage and softening	5																			
19	Organic diseases of the heart	9	1	1				1													2
20	Bronchitis	30		1				3	1												3
21	Pneumonia	149		2	1	2		5	1	5	7	18	24	17	32	30	28				
22	Other diseases of the respiratory system (tuberculosis and broncho pneumonia excepted)	12																			
23a	Broncho pneumonia	387	2	4	7	12		25	14	8	15	62	44	53	103	75	50				
24	Diseases of the stomach (cancer excepted)	10							1												
25	Diarrhoea and enteritis (under 2 years)	203			1	4		5	5	8	6	24	32	26	72	32	17				
26	Appendicitis and typhlitis	3						1													
27	Hernia, intestinal obstruction	32	1					1													1
28	Cirrhosis of the liver	1																			
29	Acute nephritis and Bright's disease	7				2		2													1
30	Noncancerous tumors and other diseases of the female genital organs																				
31	Puerperal septicaemia (puerperal fever, peritonitis)																				
32	Other puerperal accidents of pregnancy and labor																				
33	Congenital debility and malformations	1635	771	194	111	182		1238	106	45	28	1437	71	35	56	30	6				
34	Senility																				
35	Suicide																				
36	Suicide																				
37	Violent deaths (suicide excepted)	44	8	2	2			12	1			13	4	7	8	8	4				
38	Other diseases (exclusive of 37A)	212	14	3	9	21		47	19	6	6	78	18	24	33	30	29				
37a	Other diseases peculiar to early infancy	152	67	20	12	23		122	11	6	6	145	2	5							
38	Unknown or ill-defined diseases	5				1		1				1			3						1
	Total	3089	864	227	143	248		1482	162	85	73	1802	254	214	383	263	193				

TABLE 19.—DEATHS (exclusive of stillbirths) UNDER ONE YEAR OF AGE, BY CAUSES AND MONTHS OF DEATHS, IN NEW JERSEY—1932

Abridged International List Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
		1	Typhoid fever											
2	Typhus fever													
3	Malaria													
4	Smallpox													
5	Measles	10	1			3	2						2	2
6	Scarlet fever	5				1	1	1				1	1	
7	Whooping cough	71	8	8	23	4	7	8	3		3	2	1	3
8	Diphtheria and croup	8		1	1		1	1	1	1		1	2	
9	Influenza	33	3	4	9	6	2	1		1		1	2	4
10	Asiatic cholera													
11	Cholera nostras													
12	Other epidemic diseases	24	5	3	2	2		4	1		2	2		3
13	Tuberculosis of the lungs	9			1	1		2		2	1		1	1
14	Tuberculosis meningitis	10	1			3	2	1		10	1			
15	Other forms of tuberculosis	10	1	1	1	2		1		1	2			1
16	Cancer and other malignant tumors	1					1							
17	Simple meningitis	12	3		1		2	2			1			2
18	Cerebral haemorrhage and softening	5			1		1		1				1	1
19	Organic diseases of the heart	9			2		2			1	1			2
21	Bronchitis	30	3	2	5	4	5			1	1		2	6
22	Pneumonia	149	19	20	13	15	14	11	2	4	3	13	11	24
23	Other diseases of the respiratory system (tuberculosis and broncho pneumonia excepted)	12	2	1	2	1		2		1	1	2		
23a	Broncho pneumonia	387	23	32	35	35	47	24	21	14	20	30	28	78
24	Diseases of the stomach (cancer excepted)	10	1	1	2		1				3		1	1
25	Diarrhoea and enteritis (under 2 years)	203	11	9	24	12	17	7	10	25	32	21	16	19
26	Appendicitis and typhlitis	3			2						1			
27	Hernia, intestinal obstruction	32	4	3	3	5	1	1	4	3	1	3	3	1
28	Cirrhosis of the liver	1					1							
29	Acute nephritis and Bright's disease	7		1		2	2				1	1		
30	Noncancerous tumors and other diseases of the female genital organs													
31	Puerperal septicaemia (puerperal fever, peritonitis)													
32	Other puerperal accidents of pregnancy and labor													
33	Congenital debility and malformations	1635	144	119	127	139	147	143	148	136	140	123	126	143
34	Senility													
36	Suicide													
36	Suicide (suicide excepted)	44	4	7	4	4	2	4	2	1	2	5	3	6
37	Violent deaths (suicide excepted)	212	16	20	14	19	32	16	11	24	15	15	17	13
37a	Other diseases (exclusive of 37a)	152	10	21	13	21	10	9	11	12	16	9	12	8
38	Unknown or ill-defined diseases	5	1	1	1	1				1				
	Total	3089	260	254	287	280	300	238	214	231	245	234	228	318

BUREAU OF VITAL STATISTICS

OF NEW JERSEY AND MUNICIPALITIES OF 5,000 OR MORE INHABITANTS IN 1930. (COUNTY WHICH FOLLOW): 1932—Continued

Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	Secaucus	Union City	West New York	Hunterdon County	Lambertville	Mercer County	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy
2								1				1			3				1		
24	2			2	20					4					3						
9	1			6	1		1			3	1			1							
18	1		1	11	4		1	1		3		3		4					2		2
29	3			13	4		1	2		2		2		2			1				
86	19	1	3	7	42	7		2	2	5	1	2	1	12	33	3	2	6	3		2
1				1																	
12	2		1	1	8					1					3						
5				2	2	2			1			2		1	1				1		
3				1	4							4		4	2			1			
2	1		1	5	5			1				2		2	2						
1				1	1										2						
425	52	2	9	40	235	15	2	28	18	12	1	142	3	99	115	7	1	20	27	3	2
23	5		1	3	11	1									5	1			2		
1					1							2		2	2				1		
6				5				1				2		1							
6	1			1	3							2		2	2						
13	1		1	2	6							2		1	1				1		1
42	3			8	25			1	4	1	1	16	2	12	14	1	1	3	3	1	
7				2	3				1	1		1		1	1						
9	1		1	1	3				2			2		2	3		1	1	1		
25			2	1	15			2	3	1		5	1	4	6	1		3			
230	33		3	18	113	14	2	20	8	20	1	53	3	32	74	2	1	12	8	5	6
152	15	1	4	14	69	10	1	15	7	12	3	38	2	29	34	2	1	4	3	1	5
92	2	1		6	46	6	1	9	7	5	1	28	1	17	26		5	7	4		1
67	4	2	2	6	41	2	1	1	3	9	2	23	1	14	19		1	4	1		2
9				3	5	1						4		2							
169	16	2	4	11	92	13	1	12	6	7	1	43	2	24	36		3	5	8	2	4
7	1				4				1			2		1	1	1					
26	5		2	1	11	3			3	1		5		5	4	1			1	1	
6				1	4							1		1	3		1		1	1	

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	South River	Monmouth County	Asbury Park	Long Branch	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County
Typhoid and paratyphoid fever	1	1	5	3							2
Typhus fever	2										
Relapsing fever	3										
Malta fever	4		1								
Malaria	5										
Smallpox	6										
Measles	7		2								1
Scarlet fever	8		6		1	1	2			1	2
Whooping cough	9		1							3	4
Diphtheria	10		2			1			1		14
Influenza	11	1	27	5	3	2	5		1	7	36
Miliary fever	12										
Mumps	13									1	
Asiatic cholera	14										
Cholera nostras	15										
Dysentery	16										
Plague	17										
Yellow fever	18										
Spirochetel hemorrhagic jaundice	19										
Leprosy	20										
Erysipelas	21					2				2	5
Acute anterior poliomyelitis	22		1			3				3	2
Lethargic encephalitis	23	1	1		1	1					2
Meningococcus meningitis	24		1	1							3
Other epidemic and endemic diseases	25		1	1							
Glanders	26										
Anthrax	27										1
Rabies	28										
Tetanus	29										
Mycoses	30										
Tuberculosis of the respiratory system	31	7	87	10	11	8	53	2	2	10	123
Tuberculosis of the meninges and central nervous system	32		2				2				4
Tuberculosis of the intestines and peritoneum	33		4	1			2		1		2
Tuberculosis of the vertebral column	34										2
Tuberculosis of the joints	35	1	1	1							1
Tuberculosis of other organs	36		3	1	2		1			1	2
Disseminated tuberculosis	37		2				5				2
Syphilis	38	1	23	7	2	4	10	1	2	2	20
Soft chancre	39										
Gonococcus infection	40	1	1				3	1		1	3
Purulent infection, septicaemia	41		1				1				3
Other infectious diseases	42										
Cancer and other malignant tumors of the buccal cavity	43		9	1	1	1	3			1	2
Cancer and other malignant tumors of the stomach, liver	44	5	56	3	2	6	48	6	2	8	17
Cancer and other malignant tumors of the peritoneum, intestines, rectum	45		50	7	4	6	28	1	5	4	7
Cancer and other malignant tumors of the female genital organs	46		42	5	4	5	16	1	1	2	5
Cancer and other malignant tumors of the breast	47	1	27	5	2	6	20	1	1	1	3
Cancer and other malignant tumors of the skin	48		6			1	2			1	1
Cancer and other malignant tumors of other or unspecified organs	49	4	47	4	1	3	28	4	1	6	12
Benign tumors and tumors not returned as malignant (tumors of the female genital organs excepted)	50		4				3			1	
Acute rheumatic fever	51		2				2		1	1	
Chronic rheumatism, osteoarthritis, gout	52		2			1	1				
Scurvy	53						1	1			

DEPARTMENT OF HEALTH

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	State Total	Atlantic County	Atlantic City	Hammonon	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield	Hackensack	
Pellagra	54	5												
Beriberi	85	1												
Ricketts	86	9	12											
Diabetes mellitus	87	1103	45	27	1	5	76	3	3	5	3	12	3	
Anemia, chlorosis	88	137	12	1			7		1	3		1	1	
Diseases of the pituitary gland	89	4												
Diseases of the thyroid gland	90	125	3	2			7	1	1				1	
Diseases of the parathyroid glands	61	4	1		1		1							
Diseases of the thymus gland	62	50				2			1				1	
Diseases of the adrenals (Addison's disease)	63	15				3			1					
Diseases of the spleen	64	7												
Leukemia & Hodgkin's disease	65	155	2	1			21	1	2				1	
Alcoholism (acute and chronic)	66	107	9	7		1	3				1			
Chronic poisoning by mineral substances	67	4												
Chronic poisoning by organic substances	68	1												
Other general diseases	69	51	3			3	3					1		
Encephalitis	70	49	3	2			3					1		
Meningitis	71	87	2	1			9		2					
Tabs dorsalis (locomotor ataxia)	72	33	1	1			1							
Other diseases of the spinal cord	73	129	7	3		1	10				1		1	
Cerebral hemorrhage, apoplexy	74	3281	142	77	6	19	230	4	4	11	7	9	10	18
Paralysis without specified cause	75	102	9	7			9						1	1
General paralysis of the Insane	76	136	9	5		3	9		1				1	1
Other forms of mental alienation	77	59					3	1				1	1	1
Epilepsy	78	62	3	2			1	1				1	1	1
Convulsions (nonpuerperal; 5 years and over)	79	3												
Infantile convulsions (under 5 years of age)	80	13	2	2										
Chorea	81	2												
Neuralgia and neuritis	82	1												
Softening of the brain	83	19	1	1										
Other diseases of the nervous system	84	176	7	2		2	10					1	2	
Diseases of the eye and annexa	85	3												
Diseases of the ear and of the mastoid process	86	143	5	3			18		1	1		1	2	
Pericarditis	87	16	1	1										
Endocarditis and myocarditis (acute)	88	391	28	17	2		19	2	5	3		2	3	2
Angina pectoris	89	636	34	21		2	44	2	5	3		2	1	2
Other diseases of the heart	90	8763	381	229	12	34	706	21	34	42	18	12	21	50
Diseases of the arteries	91	739	16	9		2	50	1	1	1	1	2	1	3
Embolism and thrombosis (not cerebral)	92	590	13	12			65	1	3	2	1	1	1	3
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	93	22	1			1	2							
Diseases of the lymphatic system (lymphangitis, etc.)	94	7	1	1										
Hemorrhage without specified cause	95	3												
Other diseases of the circulatory system	96	4												
Diseases of the nasal fossae and their annexa	97	33	2	1			4					1	1	
Diseases of the larynx	98	19					2					1		1
Bronchitis	99	154	4	3			9							1
Broncho pneumonia	100	1166	31	15	3	3	69	2	1	4		2	6	15
Pneumonia	101	1765	54	33	3	6	155	5	13	9		11	15	15
Pleurisy	102	96	2	2			9		1		1			
Congestion and hemorrhagic infarct of the lung	103	34	1	1			2							
Gangrene of the lung	104	4	1	1										
Asthma	105	50	1		1		3							
Pulmonary emphysema	106	6												
Other diseases of the respiratory system (tuberculosis excepted)	107	47					3			1				
Diseases of the mouth and annexa	108	28	1	1			3					1		

DEPARTMENT OF HEALTH

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
FIGURES INCLUDE PLACES

	Bloomfield	East Orange	Irvington	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County	Woodbury	
Pellegra	54				1					1		
Beriberi	55											
Rickets	56				1							
Diabetes mellitus	57	10	16	13	9	135	6	7	5	6	15	4
Anemia, chlorosis	58			2	1	12		3	1			
Diseases of the pituitary gland	59											
Diseases of the thyroid gland	60	1	5	3		17	1	1		4	1	
Diseases of the parathyroid glands	61											
Diseases of the thymus gland	62			1	1	8				1		
Diseases of the adrenals (Addison's disease)	63				3							
Diseases of the spleen	64				2					1		
Leukemia & Hodgkin's disease	65		2	3	2	22	1		2	2	2	
Alcoholism (acute and chronic)	66		1		1	17				4		
Chronic poisoning by mineral substances	67			1								
Chronic poisoning by organic substances	68											
Other general diseases	69	1	2			7		1				
Encephalitis	70	1	3		1	6						
Meningitis	71	2	1	1		10		3				
Tabes Dorsalis (locomotor ataxia)	72	1		2	1	4				5	1	
Other diseases of the spinal cord	73		2		2	10		2		1		1
Cerebral hemorrhage, apoplexy	74	24	56	18	33	324	10	40	14	16	74	8
Paralysis without specified cause	75		3	1		7				2		
General paralysis of the insane	76		3	2	1	18				2		
Other forms of mental alienation	77	1		1	1	14				4	1	
Epilepsy	78	1	1			6		1		2		
Convulsions (nonpuerperal; 5 years and over)	79											
Infantile convulsions (under 5 years of age)	80											
Chorea	81											
Neuralgia and neuritis	82											
Softening of the brain	83					2						
Other diseases of the nervous system	84	7	2	6	3	22	1			1		1
Diseases of the eye and annexe	85					1						
Diseases of the ear and of the mastoid process	86	1		2	1	14		2	1	2	2	
Pericarditis	87		1			2					2	1
Endocarditis and myocarditis (acute)	88	8		6	2	28	1	2	1	4	6	
Angina pectoris	89	13	26	7	12	54	8	12	4	8	18	4
Other diseases of the heart	90	62	139	109	87	876	35	80	27	49	164	16
Diseases of the arteries	91	6	17	9	9	132	5	6	3	4	11	2
Embolism and thrombosis (not cerebral)	92	6	13	11	6	58	2	5	7	4	4	1
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	93					6		1	1			
Diseases of the lymphatic system (lymphangitis, etc.)	94	1				1						
Hemorrhage without specified cause	95											
Other diseases of the circulatory system	96					2						
Diseases of the nasal fossae and their annexe	97			1	1	2	1					
Diseases of the larynx	98					2						
Bronchitis	99		1	3		18		4	1			
Broncho pneumonia	100	8	9	11	6	129	5	1	4	2	29	4
Pneumonia	101	11	29	13	19	211	11	15	8	5	28	5
Pleurisy	102	1				12		5		1	2	1
Congestion and hemorrhagic infarct of the lung	103	1	2		1	1				2		
Gangrene of the lung	104											
Asthma	105	1	4			3		1		1		
Pulmonary emphysema	106			1		1						
Other diseases of the respiratory system (tuberculosis excepted)	107					3						
Diseases of the mouth and annexe	108	1			3	1						

DEPARTMENT OF HEALTH

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	South River	Monmouth County	Asbury Park	Long Branch	Ited Bank	Morris County	Dover	Madison	Morrisstown	Ocean County	Passaic County
Pellagra		1									1
Beriberi											54
Rickets											56
Diabetes mellitus	1	55	10	7	6	30		2	7	7	96
Anemia, chlorosis	1	7		2		5			1	1	17
Diseases of the pituitary gland											59
Diseases of the thyroid gland		6	1	2	1	5			1	1	7
Diseases of the parathyroid glands		1									1
Diseases of the thymus gland		3			1	4			1		1
Diseases of the adrenals (Addison's disease)		1									3
Diseases of the spleen											64
Leukemia & Hodgkin's disease		3			1	3				1	18
Alcoholism (acute and chronic)	1	4		2		2				3	9
Chronic poisoning by mineral substances											67
Chronic poisoning by organic substances											68
Other general diseases	1	4		1		2					3
Encephalitis						3		2			4
Meningitis		3		1		4			1	1	3
Tabes Dorsalis (locomotor ataxia)		4				1					4
Other diseases of the spinal cord		9			2	4			1		4
Cerebral hemorrhage, apoplexy	11	260	21	28	13	99	7	3	17	39	234
Paralysis without specified cause		1				2	1				1
General paralysis of the insane		7	1			3	1				9
Other forms of mental alienation		2	1			1					4
Epilepsy		2				1					5
Convulsions (nonpuerperal; 5 years and over)		1									79
Infantile convulsions (under 5 years of age)										1	1
Chorea											80
Neuralgia and neuritis											81
Softening of the brain		1	1								4
Other diseases of the nervous system		7			1	5	1			2	9
Diseases of the eye and annexa						1					84
Diseases of the ear and of the mastoid process		5				5		2			17
Pericarditis		1		1							3
Endocarditis and myocarditis (acute)		14		1	2	6	1			6	22
Angina pectoris		35	5	6	5	23	2		1	6	40
Other diseases of the heart	13	439	49	42	21	240	18	23	40	90	524
Diseases of the arteries	1	51	5	4	1	35	5	2	7	11	73
Embolism and thrombosis (not cerebral)	2	38	10	4	1	24	1		7	15	37
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)						1			1		1
Diseases of the lymphatic system (lymphangitis, etc.)											92
Hemorrhage without specified cause											94
Other diseases of the circulatory system											95
Diseases of the nasal fossae and their annexa						1					1
Diseases of the larynx											97
Bronchitis		5	1			4			4	4	18
Broncho pneumonia	1	48	5	2	3	32	3	2	3	13	87
Pneumonia	5	62	8	7	7	44	3	2	9	9	135
Pleurisy		3		1	1	1			1		4
Congestion and hemorrhagic infarct of the lung		1				2		1	1		6
Gangrene of the lung											1
Asthma		2				3					2
Pulmonary emphysema											103
Other diseases of the respiratory system (tuberculosis excepted)											104
Diseases of the mouth and annexa	1	5	2			1				1	2
		1		1		1				1	3

DEPARTMENT OF HEALTH

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	South River	Monmouth County	Asbury Park	Long Branch	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County
Diseases of the pharynx and tonsils.....109	2					1				1	19
Diseases of the oesophagus .....110											8
Ulcer of the stomach and duodenum .....111	9	1			1	7		1		1	23
Other diseases of the stomach (cancer ex- cepted) .....112		10	3			2	1				6
Diarrhoea and enteritis (under 2 years of age) .....113		5				6	3	1		5	6
Diarrhoea and enteritis (2 years and over).....114		5		1		3					8
Ancylotomiasis .....115											1
Diseases due to other intestinal parasites.....116											1
Appendicitis and typhlitis .....117	17	3	1			13		1	3	4	26
Hernia, Intestinal obstruction .....118	13	2	1			12	1	1	1	5	15
Other diseases of the intestines .....119	6				1					2	4
Acute yellow atrophy of the liver .....120											1
Hydatid tumor of the liver .....121											1
Cirrhosis of the liver .....122	2	7		2		10	1	2	2	3	23
Biliary calculi .....123	2	5		1	1	7	1	1	1	3	11
Other diseases of the liver .....124		5			2	6		2		1	9
Diseases of the pancreas .....125		1			1						1
Peritonitis without specified cause .....126		4				2			1		3
Other diseases of the digestive system (cancer and tuberculosis excepted) .....127											
Acute nephritis (including unspecified under 10 years of age) .....128	1	2				7			2	1	11
Chronic nephritis (including unspecified 10 years and over) .....129	4	203	20	32	22	126	13	10	16	43	235
Chyluria .....130											5
Other diseases of the kidneys and annexa.....131		4	1			6			2		2
Calculi of the urinary passages .....132		2				1				1	2
Diseases of the bladder .....133		1				1					
Diseases of the urethra, urinary abscess, etc. ....134											1
Diseases of the prostate .....135		12		2		8	1		2		19
Nonvenereal diseases of the male genital organs .....136										1	
Cysts and other benign tumors of the ovary .....137											2
Salpingitis and pelvic abscess (female).....138		3	1								
Benign tumors of the uterus .....139		2			1					2	11
Nonpuerperal uterine hemorrhage .....140											
Other diseases of the female genital organs .....141		1				1					
Nonpuerperal diseases of the breast (can- cer excepted) .....142											
Accidents of pregnancy .....143											3
Puerperal hemorrhage .....144		3	1	2		1	1				3
Other accidents of labor .....145		2									4
Puerperal Septicæmia .....146		10			1	3				2	9
Puerperal phlegmasia alba dolens, em- bolus, sudden death .....147		1									4
Puerperal albuminuria and convulsions.....148		3				2			1	1	7
Following child-birth (not otherwise de- fined) .....149											1
Puerperal diseases of the breast .....150											
Gangrene .....151		1									
Furuncle .....152		1	1								1
Acute abscess .....153						1		1			5
Other diseases of the skin and annexa.....154						1					2
Diseases of the bones (tuberculosis ex- cepted) .....155											
Diseases of the joints (tuberculosis and rheumatism excepted) .....156	1	3				3					1
Amputations .....157							2				

DEPARTMENT OF HEALTH

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
FIGURES INCLUDE PLACES

	State Total	Atlantic County	Atlantic City	Hammonton	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield	Hackensack
Other diseases of the organs of locomotion.155	2					1	1						
Congenital malformation (still-births not included).....159	360	11	4			26	1	3	1			4	3
Congenital debility, icterus and sclerema.160	120	6	4			1	8					1	1
Premature birth; injury at birth.....161	1177	55	38	2		8	97	2	3	6	1	9	7
Other diseases peculiar to early infancy.....162	148	5	5			10	1		1			2	
Lack of care.....163	4	1	1										
Senility.....164	137	7	5			1	4						
Suicide by solid or liquid poisons (corrosive substances excepted).....165	48	1	1				5	1	1				
Suicide by corrosive substances.....166	49												
Suicide by poisonous gas.....167	231	5	5				23	1	1			1	1
Suicide by hanging or strangulation.....168	156	5	3				16	1			1	1	
Suicide by drowning.....169	30	1	1										
Suicide by firearms.....170	167	2	6		1					1			
Suicide by cutting or piercing instruments.171	21	2	1				2						
Suicide by jumping from high places.....172	29		1				2					1	
Suicide by crushing.....173	8						1						
Other suicides.....174	1												
Poisoning by food.....175	8	1	1										
Poisoning by venomous animals.....176	1												
Other acute accidental poisonings (gas excepted).....177	53	1	1			9		2				2	
Conflagration.....178	46	2		1									1
Accidental burns (conflagration excepted).179	139	6	3			1	8						1
Accidental mechanical suffocation.....180	26						4						1
Accidental absorption of irrespirable, irritating or poisonous gas.....181	100	5	2				8	1					
Accidental drowning.....182	225	12	6	1			12	1					1
Accidental traumatism by firearms (wounds of war excepted).....183	29					2							
Accidental traumatism by cutting or piercing instruments.....184	12					2						1	
Accidental traumatism by fall.....185	603	20	12	1	4	41	1	1	1		1	3	2
Accidental traumatism in mines and quarries.....186	1												
Accidental traumatism by machines.....187	32	4	1			1							
Accidental traumatism by other crushing (vehicles, railways, landslides, etc.).....188	1147	40	19	1	7	86	1	2	9		1		3
Injuries by animals (not poisoning).....189	7												
Wounds of war.....190													
Execution of civilians by belligerent armies.....191													
Starvation (deprivation of food or water).192													
Excessive cold.....193	10												
Excessive heat.....194	7						1						
Lightning.....195	4	1			1								
Other accidental electric shocks.....196	18	1			1								
Homicide by firearms.....197	109	4	2		1	7				1		3	
Homicide by cutting or piercing instruments.....198	14	1	1			1							1
Homicide by other means.....199	76					9	1	2			1		
Infanticide (murder of infants less than 1 year of age).....200	10					3		1					
Fracture (cause not specified).....201	15	2	1		1								
Other external violence.....202	93					7		2	1				1
Violent deaths of unknown causation.....203	1												
Sudden death.....204	1												
Cause of death not specified or ill-defined.205	32												
Total	42826	1670	970	62	172	3323	80	119	193	58	70	170	240

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	Bloomfield	East Orange	Irvington	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County	Woodbury
Other diseases of the organs of locomotion.....										1	
Congenital malformation (still-births not included).....	2	6	2	3	36	2	2	2	2	13	1
Congenital debility, icterus and sclerema.....	1				21	1	2			8	7
Premature birth; injury at birth.....	13	24	15	12	132	8	12	2	7	24	1
Other diseases peculiar to early infancy.....	1	4	4		15				1	3	1
Lack of care.....							2				
Senility.....					23				1	2	
Suicide by solid or liquid poisons (corrosive substances excepted).....		1	1		7		2				
Suicide by corrosive substances.....				1	7				2	1	
Suicide by poisonous gas.....	3	9	2	4	39		7	2	1	2	
Suicide by hanging or strangulation.....	1	2	3	4	16		1	1		2	
Suicide by drowning.....				1	2						
Suicide by firearms.....	3	4	1	8	12		2		2	4	
Suicide by cutting or piercing instruments.....					8						
Suicide by jumping from high places.....					2						
Suicide by crushing.....											
Other suicides.....										1	
Poisoning by food.....											
Poisoning by venomous animals.....											
Other acute accidental poisonings (gas excepted).....	1				10					1	
Conflagration.....			1		5					5	
Accidental burns (conflagration excepted).....			1		22				2	2	1
Accidental mechanical suffocation.....		1			1				1		
Accidental absorption of irrespirable, irritating or poisonous gas.....		2	3	1	15	1	1	1		1	
Accidental drowning.....	1	1	1	1	19				1	4	1
Accidental traumatism by firearms (wounds of war excepted).....					2						
Accidental traumatism by cutting or piercing instruments.....				1	1					1	
Accidental traumatism by fall.....	4	9	6	7	90	2	10		5	12	2
Accidental traumatism in mines and quarries.....					5					1	
Accidental traumatism by machines.....											
Accidental traumatism by other crushing (vehicles, railways, landslides, etc.).....	9	9	14	8	121	4	6	6	4	31	4
Injuries by animals (not poisoning).....					1						
Wounds of war.....											
Execution of civilians by belligerent armies.....											
Starvation (deprivation of food or water).....											
Excessive cold.....					1						
Excessive heat.....											
Lightning.....					3		1				
Other accidental electric shocks.....											
Homicide by firearms.....			2	2	17	1				2	1
Homicide by cutting or piercing instruments.....					5						
Homicide by other means.....		2		1	9					1	
Infanticide (murder of infants less than 1 year of age).....											
Fracture (cause not specified).....	1					1				1	
Other external violence.....		3	1		11				1	4	
Violent deaths of unknown causation.....											
Sudden death.....	1				3		1				
Cause of death not specified or ill-defined.....											
Total.....	364	695	483	431	4805	159	392	132	228	891	121

TABLE 20.—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE COUNTIES
 FIGURES INCLUDE PLACES

	South River	Monmouth County	Asbury Park	Long Branch	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County
Other diseases of the organs of locomotion.158											
Congenital malformation (still-births not included)159	2	16	1	4	1	6			1	4	29
Congenital debility, icterus and sclerema.160		4		1		7	2		1		7
Premature birth; injury at birth161	6	44	6	4	1	23	3	2		13	76
Other diseases peculiar to early infancy.162		3	1			6		1	1		14
Lack of care163											
Senility164		8		1		2	1			2	7
Suicide by solid or liquid poisons (corrosive substances excepted)165	1	5	2	1		2		1	1		4
Suicide by corrosive substances166		3		2							7
Suicide by poisonous gas167	1	6	1	1		6	2	1		1	31
Suicide by hanging or strangulation168		5		1		1					12
Suicide by drowning169		3				3					3
Suicide by firearms170		7		1		5		2		2	20
Suicide by cutting or piercing instruments.171											2
Suicide by jumping from high places172		2									2
Suicide by crushing173		1									2
Other suicides174											
Poisoning by food175		2			2						1
Poisoning by venomous animals176		1									
Other acute accidental poisonings (gas excepted)177		1		1							2
Conflagration178		2				3					2
Accidental burns (conflagration excepted).179		5	2			6				1	12
Accidental mechanical suffocation180						1					2
Accidental absorption or irrespirable, irritating or poisonous gas181		4		2							11
Accidental drowning182		10		1		10	1		2	4	13
Accidental traumatism by firearms (wounds of war excepted)183	1	1				1			1	2	2
Accidental traumatism by cutting or piercing instruments184		1									2
Accidental traumatism by fall185	5	21	2	1	3	17	1	1	1	8	35
Accidental traumatism in mines and quarries186											
Accidental traumatism by machines187		2									3
Accidental traumatism by other crushing (vehicles, railways, landslides, etc.)188	1	64	6	9	7	30	1	3	3	16	93
Injuries by animals (not poisoning)189		1									
Wounds of war190											
Execution of civilians by belligerent armies191											
Starvation (deprivation of food or water).192											
Excessive cold193		2	1								
Excessive heat194											
Lightning195											1
Other accidental electric shocks196										1	1
Homicide by firearms197		3	1			1			1		6
Homicide by cutting or piercing instruments198											
Homicide by other means199		5	1	1		2					3
Infanticide (murder of infants less than 1 year of age)200						2					2
Fracture (cause not specified)201											2
Other external violence202		7				2	1				6
Violent deaths of unknown causation203											
Sudden death204											5
Cause of death not specified or ill-defined.205						4					5
Total	88	2031	232	219	154	1216	95	89	181	439	2945

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TABLE 21.—DEATHS BY OCCUPATIONS

		AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY										
		Farmers	Farm laborers	Fishermen and oystermen	Gardeners, florists, fruit growers and nurserymen	Other agricultural and animal husbandry pursuits	EXTRACTION OF MINERALS	Foremen, overseers and inspectors	Miners	Quarry operatives	MANUFACTURING AND MECHANICAL INDUSTRIES	Bakers
Tuberculosis of the respiratory system	10 to 19	1	2									
	20 to 29	2	2									
	30 to 39	6	2									
	40 to 49	6	2	1								1
	50 to 59	4	2	2					2			1
	60 to 69	2	3	2					1			1
	70 to 79	2	3	2					1			
	80 and over	1	1		1							
Totals		25	10	3	11	4		3	1		4	
Cancer and other malignant tumors	10 to 19											
	20 to 29											1
	30 to 39	1										
	40 to 49	2	4									
	50 to 59	2	1		2		1		1			1
	60 to 69	3	1		2			1				6
	70 to 79	3	4	3	7		2					5
	80 and over	5	4		6							4
Totals		14			1			1				17
Diseases of the nervous system and of the organs of special sense	10 to 19	1	1									
	20 to 29				1	1						
	30 to 39	1	1		1							1
	40 to 49	2	2	1								1
	50 to 59	10	3		3				1	1		3
	60 to 69	26	3		4		1			1		5
	70 to 79	5	7	5	2	1	1		1	1		6
	80 and over	21	2	2	2	1						
Totals		113	19	8	23	4		2	3		16	
Diseases of the circulatory system	10 to 19											
	20 to 29	1	1		1							
	30 to 39	5	1									1
	40 to 49	8	3			1			2			3
	50 to 59	23	10	3	15	3		1	5	1		5
	60 to 69	74	14	7	22	8		1	4	2		10
	70 to 79	102	12	5	19	6			2	2		4
	80 and over	82	5	3	11	2			1			6
Totals		295	46	18	68	22		2	17	3		34

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Blacksmiths, forgemen and hammermen	Boilermakers	Brick and stone masons	Builders and building contractors	Carpenters, coopers and cabinetmakers	Compositors, linotypers and typesetters	Dressmakers and seamstresses (not in factory)	Dyers	Electricians and electrical engineers	Engineers (stationary)	Engravers	Filters, grinders, buffers and polishers (metal)	Firemen (except locomotive and fire department)	Glassblowers	Jewelers, watchmakers, goldsmiths and silver-smiths	Laborers (general and not specified)	Building and hand trades	Chemical industries	Clay and stone industries (excepting potteries)
1	1	1	2	2	3	4	1	4	1	1	1	1	1	1	3	3	1	1
1	2	1	1	3	1	1	1	1	1	1	1	1	1	1	26	26	1	1
1	2	1	1	12	1	1	1	3	1	1	1	1	1	47	47	1	1	
1	3	1	1	8	1	1	1	2	1	1	1	1	1	56	56	1	1	
1	3	1	1	5	1	1	1	2	1	1	1	1	1	43	43	1	1	
1	1	1	1	1	1	1	1	4	1	1	1	1	1	26	26	1	1	
2	6	9	2	31	9	4	10	7	1	2	5	8	205	10	4	2	2	
1	1	2	1	3	3	1	1	1	1	1	1	1	3	7	1	1	1	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	3	1	9	21	3	3	5	5	1	1	2	4	26	26	2	1	1	
6	6	9	8	34	2	8	5	5	1	1	2	4	51	51	3	1	1	
1	4	3	3	23	6	3	3	16	1	1	6	1	51	51	1	1	1	
1	3	3	4	1	1	1	1	7	1	1	3	4	29	29	1	1	1	
12	6	27	26	95	2	17	10	12	84	2	2	15	11	168	7	1	7	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	12	1	1	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	10	1	1	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	33	33	1	1	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	3	3	3	7	1	2	1	4	1	2	1	1	1	39	39	3	1	
6	4	5	5	26	1	3	1	2	6	1	1	3	1	39	39	1	1	
4	1	5	7	21	1	3	1	1	1	1	2	3	2	39	39	1	1	
2	2	2	11	2	2	2	1	1	1	1	1	1	2	10	10	1	1	
15	5	12	19	72	2	13	3	7	16	2	3	4	8	6	178	4	4	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	2	2	5	5	1	1	1	3	4	1	1	6	1	9	9	1	1	1
3	3	3	1	23	1	2	1	9	9	1	1	2	2	60	60	3	2	1
10	16	14	68	3	3	5	9	10	23	2	5	10	2	8	148	3	4	1
13	2	13	17	60	2	11	5	2	23	3	3	5	5	11	108	2	1	2
12	1	8	6	42	6	1	1	9	9	1	1	4	4	32	32	1	1	1
39	8	51	41	230	7	27	7	28	77	8	10	40	12	33	528	14	8	9

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TABLE 21.—DEATHS BY OCCUPATIONS

		Glass industries	Iron, steel and other metal industries	Leather industries	Lumber and furniture industries	Potteries	Robber industries	Textile industries	Other industries	Machinists, millwrights and toolmakers	Managers, superintendents and foremen (manufacturing)	Manufacturers and officials	Mechanics (gunsmiths, locksmiths, wheelwrights, etc.)
Tuberculosis of the respiratory system	10 to 19					3		1	3				5
	20 to 29		1							3			
	30 to 39	1	12							6		1	6
	40 to 49		5				3			12	4		4
	50 to 59		4				1			7	5	1	3
	60 to 69					2	1		2	3	2	1	2
	70 to 79					1			1	3	4	1	2
	80 and over											1	
	Totals		1	12			8	4	3	9	33	15	7	16
Cancer and other malignant tumors	10 to 19												1
	20 to 29									3			4
	30 to 39		1		1				1	2	2	1	3
	40 to 49		2				2		1	6	2	1	4
	50 to 59	1	2				1	1	4	17	11	7	4
	60 to 69		2				2		1	18	14	5	2
	70 to 79		2			1	2	2	1	6	7	6	3
	80 and over									2	7	4	2
	Totals		1	10		1	1	6	4	7	54	36	24	19
Diseases of the nervous system and of the organs of special sense	10 to 19								1				
	20 to 29								1				
	30 to 39									4		1	4
	40 to 49		1							6	5		4
	50 to 59		4						5	13	9	6	3
	60 to 69		5		1	1			1	13	6	9	2
	70 to 79		3			1		2	1	12	5	4	
	80 and over									1	1	2	
	Totals			13		1	2		2	9	49	27	24	13
Diseases of the circulatory system	10 to 19												1
	20 to 29		1				1			6			4
	30 to 39		1				1		1	4	4		3
	40 to 49		4		1			1	3	15	12	6	8
	50 to 59	2	16		1	2		9	32	22	14	6	6
	60 to 69		5		2	3	2	5	26	27	25	6	6
	70 to 79	1	7			2		1	6	32	20	22	6
	80 and over						2			7	7	10	4
	Totals		3	34		2	3	11	5	24	122	92	77	35

TABLE 21.—DEATHS BY OCCUPATIONS

	Potteries	Rubber industries	Textile industries	Other industries	Shoemakers and cobblers (not in factory)	Stonecutters	Tailors and tailresses	Tinsmiths and copper-smiths	Upholsterers	Other manufacturing and mechanical industries	TRANSPORTATION	Water
Tuberculosis of the respiratory system												
10 to 19			1	4								
20 to 29	1	1	7	16							1	
30 to 39			5	4	1			2			5	
40 to 49	1		6	5		1	3	1			2	
50 to 59		2	4	7			5	1	1			
60 to 69	3		3	2		1	2				2	
70 to 79		2									1	
80 and over												
Totals	11	5	26	38	1	2	11	4	1	11		
Cancer and other malignant tumors												
10 to 19				1								
20 to 29				1								
30 to 39				1								
40 to 49	1		11	5			3	1			5	
50 to 59		1	7	12	4		7	2	1		6	
60 to 69	1	3	14	14	4	1	9	2	1		6	
70 to 79	3	2	12	8	3	1	4				4	
80 and over			2	1			1	1				
Totals	5	6	48	44	11	2	25	6	2	21		
Diseases of the nervous system and of the organs of special sense												
10 to 19												
20 to 29				1				1			1	
30 to 39	1		2	1							1	
40 to 49	1		4	2	2	1	4				1	
50 to 59	1		10	6	3		5				4	
60 to 69	2	2	11	16	2		5	3			6	
70 to 79	2		7	8	5		2	2			2	
80 and over			1	1	2		1				2	
Totals	7	2	36	34	14	1	18	5		15		
Diseases of the circulatory system												
10 to 19				3	7	1					1	
20 to 29				2	3						1	
30 to 39		2	2	3			1				1	
40 to 49	2		14	10	3		4				9	
50 to 59	7	1	10	16	8		15	5	1		12	
60 to 69	2	3	37	21	7	4	13	6	2		20	
70 to 79	3	2	25	15	5	6	8	2	4		13	
80 and over		3	11	3	1	3	8	1			4	
Totals	14	11	102	75	25	13	49	14	7	60		

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TABLE 21.—DEATHS BY OCCUPATIONS

	Motormen	Officials and superintendents	Switchmen, flagmen and yardmen	Ticket and station agents	Other pursuits	Express, Post, Telegraph and Telephone	Express messengers and railway mail clerks	Linenen	Mail carriers	Telegraph operators	Telephone operators	Other pursuits
Tuberculosis of the respiratory system												
10 to 19										1		
20 to 29											2	
30 to 39	1		1	1				1	1		1	1
40 to 49			1		1							
50 to 59	1		3		4				1	1		
60 to 69			1		1					1		
70 to 79												
80 and over												
Totals	2		6	1	6			3	2	3	3	1
Cancer and other malignant tumors												
10 to 19												
20 to 29												
30 to 39												
40 to 49	1				1						1	1
50 to 59	2						1		4	1	1	1
60 to 69			5		3		1	2	1	1	1	2
70 to 79	2		3	1	2			1				1
80 and over												
Totals	5		8	1	6		1	1	7	2	2	5
Diseases of the nervous system and of the organs of special sense												
10 to 19												
20 to 29												
30 to 39					2							
40 to 49			1					1			1	1
50 to 59			5							1		3
60 to 69		1	5	1	3							1
70 to 79	2		4		3							
80 and over			3									
Totals	2	1	18	1	8			1		1	1	5
Diseases of the circulatory system												
10 to 19												
20 to 29		1		1								
30 to 39	1	2			2				1	3	2	1
40 to 49	2	2	1				1					1
50 to 59	2	4	1		5			1	3	3		5
60 to 69	2	7	1		3		1		1			1
70 to 79	2	7			7				4			2
80 and over	1	1			2							1
Totals	9	7	20	3	20		2	1	9	6	2	11

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TRADE	Bankers, brokers and moneylenders	Clerks in stores	Deliverymen	Laborers	Real estate and insurance agents and officials	Salesmen and saleswomen	Undertakers	Wholesale and retail dealers	Other pursuits	PUBLIC SERVICE (NOT ELSEWHERE CLASSIFIED)	Firemen (fire department)	Laborers (public service)	Marshals, sheriffs, detectives, etc.	Officials and inspectors (city, county, state, U. S.)	Policemen	Soldiers, sailors and marines	Other pursuits
.....	33	1	.....	.....	1	13	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
.....	33	.....	.....	.....	.....	.....	.....	13	3	.....	.....	4	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	5	9	.....	9	1	.....	.....	1	.....	.....	.....	.....	3
.....	2	.....	.....	.....	4	6	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	1	1	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2	10	3	5	12	42	1	58	9	.....	5	10	1	1	4	.....	15
.....	.....	1	.....	.....	1	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	1	1	1	3	6	.....	14	1	.....	1	2	1	.....	.....	.....	.....
.....	3	.....	.....	.....	11	18	.....	30	.....	.....	4	1	1	.....	.....	.....	.....
.....	3	3	1	1	13	16	1	48	3	.....	1	2	.....	.....	.....	.....	.....
.....	4	1	.....	.....	10	10	.....	32	1	.....	1	.....	.....	.....	.....	.....	.....
.....	2	.....	.....	.....	4	.....	.....	12	1	.....	1	1	.....	.....	.....	.....	.....
.....	13	6	4	5	44	61	2	143	10	.....	8	7	5	10	11	3	35
.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....
.....	1	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2	2	.....	.....	6	9	1	23	3	.....	1	.....	.....	.....	.....	.....	.....
.....	3	1	.....	.....	6	20	.....	33	1	.....	.....	6	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	6	6	.....	30	2	.....	2	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	7	3	4	3	25	49	2	115	10	.....	1	9	1	10	13	1	35
.....
.....
.....
.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	12	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	14	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....
.....	40	11	5	15	106	152	8	408	17	.....	9	25	10	37	42	11	107

TABLE 21.—DEATHS BY OCCUPATIONS

		PROFESSIONAL SERVICE	Architects	Authors, editors and reporters	Chemists, assayers, etc.	Civil and mining engineers and surveyors	Clergymen	Dentists	Designers, draftsmen and inventors	Lawyers, judges and justices	Musicians and teachers of music	Photographers	Physicians and surgeons	Teachers and other educators
Tuberculosis of the respiratory system	10 to 19													
	20 to 29													9
	30 to 39			1		3					1			1
	40 to 49													
	50 to 59						1							
	60 to 69			1				2		2			1	2
	70 to 79													
	80 and over													
Totals			1	2	3	1	2		5	2		1	13	
Cancer and other malignant tumors	10 to 19													2
	20 to 29													5
	30 to 39					1				1				8
	40 to 49			2		2		1			3			8
	50 to 59			1		2		1		1	4	3	3	11
	60 to 69		1	1		2		1	1	2	2		3	9
	70 to 79				1	1	4	1				1	4	7
	80 and over												1	4
Totals		1	4	1	5	8	2	2	4	10	4	11	46	
Diseases of the nervous system and of other organs of special sense	10 to 19													1
	20 to 29													1
	30 to 39													1
	40 to 49							2		1	1		2	5
	50 to 59		1	1		2	1	1	1	3	2	1	1	2
	60 to 69		2	3		2	4	1		2	4	1	5	10
	70 to 79		2	1		4	4			1			2	12
	80 and over		1		1	3								1
Totals		3	7	1	5	14	2	2	7	7	3	10	32	
Diseases of the circulatory system	10 to 19													4
	20 to 29													6
	30 to 39		1	1	3	1						1		4
	40 to 49		3	2	1	1		1	3	2	2		3	9
	50 to 59		4	1	1	2	6	1	1	5	5		9	9
	60 to 69		2	2	8	6	11	2	1	14	4	3	4	8
	70 to 79		3	3	2	1	5	3	4	8	8	2	5	19
	80 and over				3	8			1	6	2	2	4	10
Totals		13	9	16	14	30	7	10	35	28	7	25	60	

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TABLE 21.—DEATHS BY OCCUPATIONS

		AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY	Farmers	Farm laborers	Fishermen and oystermen	Gardeners, florists, fruit growers and nurserymen	Other agricultural and animal husbandry pursuits	EXTRACTION OF MINERALS	Foramen, overseers and inspectors	Miners	Quarry operatives	MANUFACTURING AND MECHANICAL INDUSTRIES	Bakers
Pneumonia	10 to 19	..	2	..	..	1	..	..	..	..	..	..	1
	20 to 29	..	..	..	..	1	..	..	..	..	..	..	1
	30 to 39	..	2	1	..	..	..	..	..	..	..	..	4
	40 to 49	..	4	..	..	3	..	..	..	..	..	..	4
	50 to 59	..	5	..	..	..	..	..	..	..	..	..	2
	60 to 69	..	4	3	..	1	..	..	..	..	..	..	2
	70 to 79	..	5	3	..	1	1	..	..	..	..	..	1
	80 and over	..	5	5	..	..	1	1	..	..	..	..	..
	Totals	..	25	7	..	9	1	..	..	..	..	..	9
	Diseases of the respiratory system (pneumonia and tuberculosis excepted)	10 to 19
20 to 29		..	..	..	..	..	..	..	..	..	..	..	..
30 to 39		..	..	..	..	..	..	..	..	1	..	..	..
40 to 49		..	2	..	..	1	1	..	..	1	..	..	..
50 to 59		..	3	2	..	..	..	..	..	..	..	..	1
60 to 69		..	..	..	..	..	..	..	..	..	..	..	..
70 to 79		..	2	1	1	4	..	..	..	..	..	..	..
80 and over		..	5	1	1	..	..	..	..	..	..	..	..
Totals		..	18	3	1	5	1	..	..	2	..	..	1
Diseases of the digestive system		10 to 19	..	3	1
	20 to 29	2
	30 to 39	..	1	..	..	1	..	..	..	..	..	..	1
	40 to 49	..	3	1	..	..	1	..	..	..	..	..	1
	50 to 59	..	5	1	1	2	2	..	..	..	..	..	3
	60 to 69	..	6	2	1	4	..	..	..	..	..	..	3
	70 to 79	..	6	..	1	..	..	..	1	..	..	..	2
	80 and over	..	7	..	..	..	1	..	..	..	..	..	..
	Totals	..	35	4	2	7	5	..	1	..	..	..	14
	Non-general diseases of the genito-urinary system and annexa	10 to 19	..	2	1
20 to 29		..	1	..	..	..	..	..	..	..	..	..	1
30 to 39		..	3	1	..	1	..	..	..	..	..	..	1
40 to 49		..	3	..	..	..	3	..	..	..	..	..	..
50 to 59		..	9	1	..	3	..	..	2	..	..	..	8
60 to 69		..	23	3	1	3	2	2	8
70 to 79		..	37	5	3	6	1	..	1	3
80 and over		..	35	3	1	7	1
Totals		..	110	14	5	24	6	..	3	2	14

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TABLE 21.—DEATHS BY OCCUPATIONS

		Glass industries	Iron, steel and other metal industries	Leather industries	Lumber and furniture industries	Potteries	Rubber industries	Textile industries	Other industries	Machinists, millwrights and toolmakers	Managers, superintendents and foremen (manufacturing)	Manufacturers and officials	Mechanics (gunsmiths, locksmiths, wheelwrights, etc.)	
Pneumonia	10 to 19	1						1		1			1	
	20 to 29													
	30 to 39													
	40 to 49						1							
	50 to 59					1		3						
	60 to 69								2					
	70 to 79						1	1	1		1		1	
	80 and over								1				2	
	Totals		1	7			1	2	5	10	15	8	7	7
	Diseases of the respiratory system (pneumonia and tuberculars excepted)	10 to 19									1			
20 to 29										2				
30 to 39										3				
40 to 49									1	2				
50 to 59				1		1			2	2			1	
60 to 69									2	2				
70 to 79									1	2			2	
80 and over									2	2			1	
Totals				8	1		1		5	14	9		3	2
Diseases of the digestive system		10 to 19							1					
	20 to 29									2				
	30 to 39		3							2				
	40 to 49		1			1		1		2				
	50 to 59		3				1	2		7		4		
	60 to 69		1							3	5	5	2	
	70 to 79						1			2	2	1	1	
	80 and over										1	2		
	Totals		8			1	3	3	4	23	17	15	14	
	Nonvenereal diseases of the genito-urinary system and annexa	10 to 19									2			
20 to 29														
30 to 39			2			1		1	3	2	1	4		
40 to 49			1			1		2	4	4	2	4		
50 to 59			2					3	5	11	3	1		
60 to 69			5			1		1	12	7	6			
70 to 79			1				1	3	19	7	7	4		
80 and over			1						7		6	3		
Totals			12			3	1	3	10	58	31	25	16	

TABLE 21.—DEATHS BY OCCUPATIONS

	Potteries	Rubber industries	Textile industries	Other industries	Shoemakers and cobblers (not in factory)	Stonecutters	Tailors and tailresses	Thsmiths and coppersmiths	Upholsters	Other manufacturing and mechanical industries	TRANSPORTATION	Water
Pneumonia												
10 to 19		1		2	1							
20 to 29			1							1		
30 to 39				3			1			1	1	
40 to 49				4							1	
50 to 59	1			2	1	1					1	
60 to 69		1	3	3	1	1		2			1	
70 to 79	1			1	1		1				1	
80 and over			4				1					
Totals	2	2	15	13	4	1	3	2	2	4		
Diseases of the respiratory system (pneumonia and tuberculosis excepted)												
10 to 19				1			1					
20 to 29												
30 to 39												
40 to 49	2		1		2							
50 to 59	1	1		3								
60 to 69			1	1	1		3				1	
70 to 79			1	1	1	1		1				
80 and over			1	1					1			
Totals	3	1	4	7	4	1	4	1	1	4		
Diseases of the digestive system												
10 to 19		1		3								
20 to 29			3	3			1					
30 to 39			2	1	1							
40 to 49			5	6			2				1	
50 to 59	2	3	7	1	4		1	1			1	
60 to 69			6	1	2		3	1	1		1	
70 to 79	1	1	1	3	1		1				2	
80 and over												
Totals	3	5	24	18	8		10	2	1	5		
Nonvenereal diseases of the genito-urinary system and annexa												
10 to 19			2									
20 to 29			2									
30 to 39			5	3	1	1	1				2	
40 to 49			4	3			2	3	1		3	
50 to 59			6	6	3	1	4	1	1		1	
60 to 69	2	1	16	11	5	1	2			1	1	
70 to 79	1		13	8	1		2		1		5	
80 and over	1	1	3		2		4				2	
Totals	4	2	51	31	12	3	15	4	3	19		

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Boatmen, canal men, sailors and deck hands	Longshoremen and stevedores	Other pursuits	Road and street	Carriage and hack drivers, draymen, teamsters and expressmen	Chauffeurs	Contractors and foremen (road building)	Garage keepers and managers	Laborers (road building) and street cleaners	Livery stable keepers and managers, hostlers and stable hands	Other pursuits	Railroad	Baggage men and freight agents	Brakemen	Conductors	Foremen, overseers and inspectors	Laborers	Locomotive engineers	Locomotive firemen
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	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	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	4	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	19	1	2	11	5	8	4	6	1	6	4	6	1	6	6	5	1	1

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TABLE 21.—DEATHS BY OCCUPATIONS

		Motormen	Officials and superintendents	Switchmen, flagmen and yardmen	Ticket and station agents	Other pursuits	Express, Post, Telegraph and Telephone	Express messengers and railway mail clerks	Linemen	Mail carriers	Telegraph operators	Telephone operators	Other pursuits
Pneumonia	10 to 19												
	20 to 29												
	30 to 39									1			
	40 to 49												
	50 to 59				1	1							
	60 to 69			2						1	1		
	70 to 79			1									
	80 and over												1
	Totals			3	1	1				2	1	1	1
	Diseases of the respiratory system (pneumonia and tuberculosis excepted)	10 to 19											
20 to 29													
30 to 39							1						
40 to 49													
50 to 59													
60 to 69													
70 to 79													
80 and over													
Totals						1						1	
Diseases of the digestive system		10 to 19											
	20 to 29												
	30 to 39			1						1			
	40 to 49												
	50 to 59	1		4		1		1					
	60 to 69	1	1		1	1			2		1		
	70 to 79			1									
	80 and over												
	Totals	2	2	6	1	2		1	6	3	1	7	
	Nonvenereal diseases of the genito-urinary system and annexa	10 to 19											
20 to 29			1										
30 to 39													
40 to 49		1	1			2			1				
50 to 59				3									
60 to 69		1	3	4		4			2			1	
70 to 79		1	1	2	2	2			1		2		1
80 and over				1									
Totals		3	6	10	2	8			4	3	1	2	

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TRADE	Bankers, brokers and moneylenders	Clerks in stores	Deliverymen	Laborers	Real estate and insurance agents and officials	Salesmen and saleswomen	Undertakers	Wholesale and retail dealers	Other pursuits	PUBLIC SERVICE (NOT ELSEWHERE CLASSIFIED)	Firemen (fire department)	Laborers (public service)	Marshals, sheriffs, detectives, etc.	Officials and inspectors (city, county, state, U. S.)	Policemen	Soldiers, sailors and marines	Other pursuits
.....	.....	1	1	.....	.....	3	.....	3	1	.....	.....	.....	.....	.....	.....	1	1
.....	2	.....	1	.....	2	9	.....	3	.....	.....	.....	2	.....	2	1	.....	2
.....	1	.....	.....	.....	4	3	.....	7	.....	.....	1	.....	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	3	3	.....	5	1	.....	.....	1	1	.....	.....	.....	4
.....	1	.....	.....	.....	1	2	.....	13	2	.....	.....	.....	.....	.....	2	.....	.....
.....	.....	.....	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	1	2	2	10	29	.....	48	4	.....	1	3	1	2	8	1	7
.....	.....	1	.....	.....	1	.....	.....	2	.....	.....	.....	2	.....	.....	2	.....	1
.....	1	.....	1	.....	1	4	.....	4	1	.....	.....	2	.....	.....	1	.....	3
.....	1	.....	.....	.....	4	3	.....	3	1	.....	.....	1	1	.....	1	.....	3
.....	1	.....	.....	.....	1	2	.....	11	.....	.....	.....	1	.....	3	.....	.....	3
.....	1	.....	1	.....	1	1	.....	4	.....	.....	.....	.....	1	.....	1	.....	1
.....	1	.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2	2	2	.....	8	10	2	27	2	.....	.....	4	1	4	5	.....	8
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	2	.....	.....	3	.....	4	1	.....	1	.....	.....	.....	.....	.....	.....
.....	1	3	.....	1	4	12	.....	11	1	.....	.....	1	2	.....	2	1	3
.....	2	.....	.....	.....	7	7	.....	29	4	.....	.....	3	.....	1	2	.....	.....
.....	1	3	1	1	2	7	1	19	1	.....	2	3	.....	.....	3	.....	5
.....	.....	.....	.....	.....	6	7	.....	26	1	.....	2	1	.....	5	5	.....	8
.....	2	.....	.....	.....	.....	4	.....	4	.....	.....	.....	.....	.....	1	.....	.....	4
.....	6	7	3	3	19	40	1	93	8	.....	5	5	2	9	12	1	20
.....	.....	.....	.....	.....	1	1	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....
.....	.....	.....	1	.....	4	4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	3	.....	.....	2	3	8	1	16	1	.....	1	1	.....	2	2	.....	1
.....	1	.....	.....	3	9	18	.....	29	.....	.....	1	2	1	2	5	1	8
.....	3	.....	.....	.....	9	4	2	49	2	.....	2	.....	2	6	6	2	15
.....	1	.....	.....	.....	10	13	1	40	1	.....	1	3	1	4	2	.....	5
.....	.....	1	.....	.....	4	4	.....	11	1	.....	.....	2	.....	2	2	1	5
.....	7	2	1	5	36	52	4	140	7	.....	4	9	4	16	17	4	34

DEPARTMENT OF HEALTH

TABLE 21.—DEATHS BY OCCUPATIONS

		PROFESSIONAL SERVICE	Architects	Authors, editors and reporters	Chemists, assayers, etc.	Civil and mining engineers and surveyors	Clergymen	Dentists	Designers, draftsmen and inventors	Lawyers, judges and justices	Musicians and teachers of music	Photographers	Physicians and surgeons	Teachers and other educators
Pneumonia	10 to 19													1
	20 to 29													1
	30 to 39								1					3
	40 to 49													1
	50 to 59						1							3
	60 to 69				2									1
	70 to 79			1			1			2			2	1
	80 and over							1		1			1	1
Totals			1	2		2	1	1	3			3	7	
Diseases of the respiratory system (pneumonia and tuberculosis excepted)	10 to 19													
	20 to 29													
	30 to 39				1									1
	40 to 49													
	50 to 59				1		1			1				1
	60 to 69												1	1
	70 to 79			1				1					1	1
	80 and over					1		1					1	2
Totals			1	2	1	1	1	1	1			2	5	
Diseases of the digestive system	10 to 19								2					1
	20 to 29								1					1
	30 to 39						1	2	1	2	1		1	1
	40 to 49				2				1	1		1		3
	50 to 59				1	1	1	1	1	1	1			2
	60 to 69								1	4			2	5
	70 to 79									1				
	80 and over		1											
Totals		1	1	3	1	3	3	4	10	2	1	3	12	
Nonvenereal diseases of the genito-urinary system and annexa	10 to 19										1			2
	20 to 29										2			3
	30 to 39				1						1			1
	40 to 49				1		1			1	1			1
	50 to 59		1				1			1			3	5
	60 to 69		2	1	2	1	4			2	2			8
	70 to 79		2		2	3	3	1	2	1	3		4	7
	80 and over		1		1	1	2	1	1				1	5
Totals		6	1	5	4	18	2	2	6	9	1	8	31	

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Other professional and semi-professional pursuits	DOMESTIC AND PERSONAL SERVICE	Barbers, hairdressers and manicurists	Bartenders	Hotel keepers and managers	Housekeepers and stewards	Janitors and sextons	Laudrers and laundresses	Porters (except in stores)	Restaurant, cafe and lunch room keepers	Saloonkeepers	Servants	Waiters	Other Pursuits	CLERICAL OCCUPATIONS	Agents, canvassers and collectors	Bookkeepers, cashiers and accountants	Clerks (except clerks in stores)	Other clerical pursuits	Grand Total
4					5						1	1						1	20
4					31		2	1			4							4	97
5					64						4							7	190
7		1			77	1		1			4	2						6	241
4				1	89	1		4			4							7	246
4					60	3					2	1						10	207
4					64	1		1			1							2	161
					20							1					1		44
19		5		2	430	6	3	9	2		19	5	13		7	9	37	8	1206
					4						1						1		8
1					9						2							3	49
					17			1					1					2	57
					24	2	1	1			2	1					2	3	110
					48	4	2	2	1	1	2				1	3	4		145
					59	2				1	4		3		1	4	3		159
					59			1	1		1		3		1	1	3	2	141
					45								2		1				86
5		7			265	8	1	5	3	2	12	1	10		3	10	24	7	755
					4						1						4	1	22
4					23					1							2	18	4
4					93		2		1	1	6						5	10	128
5		1			130			3	1		2	2					4	12	258
5		4			154	1	1	3	1		8	3					5	14	367
1					133	2	1		1		1	2	5		1	2	8	1	406
4		1			76				2		1	1	1		1	1	4	1	374
					41	1	1				1		1						171
																			65
22		9		4	654	4	5	3	8	1	26	8	18		1	19	70	18	1791
					2								1				2		7
1					39		1				4						5	3	80
2					105	1					10	2	2			1	10	1	215
2		5			208	1	1	2			14	1	3		1	4	8	2	418
4		4			237	5	7	3	1		13	4	2		1	5	12	1	630
10		2	1	5	353	9	1	1	3		19	3	6		4	5	16	1	891
9		4			337	8	1	3	1		10		5		1	6	16	1	838
1		1			150	5					4		1		1	1	3	1	361
20		16	1	7	1431	29	5	5	9	1	74	10	26		8	22	72	10	3440

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TABLE 21.—DEATHS BY OCCUPATIONS

		AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY	Farmers	Farm laborers	Fishermen and oystermen	Gardeners, florists, fruit growers and nurserymen	Other agricultural and animal husbandry pursuits	EXTRACTION OF MINERALS	Foremen, overseers and inspectors	Miners	Quarry operatives	MANUFACTURING AND MECHANICAL INDUSTRIES	Bakers	
All other diseases and causes of death	Suicide	10 to 19					1							
		20 to 29					1							
		30 to 39		4										
		40 to 49		3										
		50 to 59		5										
	60 to 69		5											
	70 to 79		5	1		4	1							
	80 and over		1											
	Totals		21	3		4	3						6	
	Violent deaths (suicide excepted)	10 to 19		12	3			1				1		2
		20 to 29		2	2		4							
		30 to 39		1	1	1						1		
		40 to 49		2	6	4	2	2			1	1		
		50 to 59		6	5		4	2		1				
	60 to 69		9	3	1	6	2				1			
70 to 79		9	4									3		
80 and over		2				2						1		
Totals		42	30	6	16	13		1	2	3		12		
All other diseases and causes of death	10 to 19		3											
	20 to 29		2	1	1					1			1	
	30 to 39		1											
	40 to 49		3	1	1	2	1				1		2	
	50 to 59		7	4	1	4	1			1			4	
60 to 69		11	3	1	4	1						1		
70 to 79		13			3	1								
80 and over		6	1		1									
Totals		48	11	4	14	4			2	1		8		
Summary	10 to 19		7	6			1				1		4	
	20 to 29		18	13	1	8	7		1				5	
	30 to 39		2	5	2	4	4				1		11	
	40 to 49		4	26	6	20	10			7	2		22	
	50 to 59		85	29	7	43	12		3	9	2		29	
60 to 69		196	38	14	58	15			5	6		37		
70 to 79		274	32	17	50	11		1	6	1		20		
80 and over		179	13	7	22	6			2			7		
Totals		825	156	54	205	66		4	34	13		135		

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TABLE 21.—DEATHS BY OCCUPATIONS

		Glass industries	Iron, steel and other metal industries	Leather industries	Lumber and furniture industries	Potteries	Rubber industries	Textile industries	Other industries	Machinists, millwrights and toolmakers	Managers, superintendents and foremen (manufacturing)	Manufacturers and officials	Mechanics (gunsmiths, locksmiths, wheelwrights, etc.)	
Suicide	10 to 19	..	..	..	..	..	..	..	..	..	..	..	..
	20 to 29	..	..	..	..	..	..	..	..	..	..	..	..
	30 to 39	..	..	..	..	..	..	..	..	5	2	2	1
	40 to 49	..	2	..	..	1	1	..	..	3	..	2	2
	50 to 59	..	1	..	..	..	1	..	..	7	4	3	3
	60 to 69	..	..	..	..	..	..	1	..	5	1	4	..
	70 to 79	..	..	..	..	..	..	..	..	1	..	..	..
	80 and over	..	..	..	..	..	..	..	..	..	..	..	..
	Totals	..	3	..	..	1	2	1	..	21	7	12	7
	Violent deaths (suicide excepted)	10 to 19	1	1	2
20 to 29		..	1	1	2	..	..	..	4	3	1	..	12
30 to 39		..	2	..	1	..	1	..	5	4	3	..	5	
40 to 49		..	2	..	..	..	..	..	7	7	2	..	6
50 to 59		..	1	4	1	1	..	..	12	8	1	5	1
60 to 69		..	1	..	..	1	..	..	1	7	2	3	..
70 to 79		..	..	1	1	..	..	..	..	1	1	1	1
80 and over		..	..	..	1	..	..	..	..	2	..	1	..
Totals		..	1	10	1	6	2	2	..	30	33	10	18	23
All other diseases and causes of death		10 to 19	1	1
	20 to 29	..	1	..	..	..	..	..	..	..	1	..	3
	30 to 39	..	..	..	..	..	2	..	..	3	1	1	1
	40 to 49	..	4	..	..	..	..	1	4	3	4	1	2
	50 to 59	..	3	1	..	..	..	..	4	5	1	4	3
	60 to 69	..	1	..	..	..	..	1	1	2	4	6	1
	70 to 79	..	2	..	..	..	1	..	..	4	3	3	1
	80 and over	..	..	..	..	..	..	..	..	..	..	..	..
	Totals	..	11	1	..	..	3	2	10	17	14	15	12
	Summary	10 to 19	1	4	1	1	4	3	1
20 to 29		..	..	..	2	3	1	4	8	21	3	1	27
30 to 39		1	13	..	2	1	5	..	11	38	28	11	37	
40 to 49		..	27	..	7	6	9	..	24	64	35	22	37	
50 to 59		4	44	2	1	6	7	3	45	110	71	49	23	
60 to 69		..	24	..	3	5	6	9	12	103	71	69	14	
70 to 79		1	15	..	1	1	7	3	14	78	47	48	15	
80 and over		..	1	2	22	11	27	10	
Totals		7	128	3	10	23	34	28	118	439	266	227	164	

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TABLE 21.—DEATHS BY OCCUPATIONS

	Potteries	Rubber industries	Textile industries	Other industries	Shoemakers and cobblers (not in factory)	Stonecutters	Tailors and tailorsesses	Tinsmiths and coppersmiths	Upholsters	Other manufacturing and mechanical industries	TRANSPORTATION	Water
Suicide												
10 to 19			1	1	1							
20 to 29			1	1	1							
30 to 39			1	1	1							
40 to 49			1	5	1		1			1		
50 to 59		1	3	6	1					4		
60 to 69				3	2					2		
70 to 79			3						1			
80 and over							1					
Totals		1	10	16	5		2		1	7		
Violent deaths (suicide excepted)												
10 to 19			2	3								
20 to 29	1		4	7	1		2			1		
30 to 39	1	1	1	10			1			2		
40 to 49			3	9	1		1			4		
50 to 59	2	1	3	3	1					5		
60 to 69	2	1	5	2			4		1			
70 to 79	1	1		1			1			1		
80 and over	1			1			1					
Totals	7	3	18	35	3		10		1	13		
All other diseases and causes of death												
10 to 19			3	1								
20 to 29			2	2								
30 to 39		2	3	1			1	1			1	
40 to 49	1	1	11	2	1		4			7		
50 to 59	1		2	4	3		2			4		
60 to 69		1	3	5	2		4	3				
70 to 79			2	3				1		1		
80 and over										1		
Totals	2	4	26	24	6		11	5		14		
Summary												
10 to 19	2	2	8	14	1							
20 to 29	2	1	25	46	3		5		1	5		
30 to 39	2	5	22	27	3	1	11	3	1	12		
40 to 49	10	1	62	51	11		26	5	2	35		
50 to 59	19	11	55	67	28	2	35	12	3	40		
60 to 69	13	10	102	77	26	7	46	15	5	45		
70 to 79	10	8	68	46	16	8	19	6	6	27		
80 and over	2	4	18	7	5	3	16	2	1	9		
Totals	58	42	360	335	93	23	158	43	19	173		

DEPARTMENT OF HEALTH

TABLE 21.—DEATHS BY OCCUPATIONS

		Motormen	Officials and superintendents	Switchmen, flagmen and yardmen	Ticket and station agents	Other pursuits	Express, Post, Telegraph and Telephone	Express messengers and railway mail clerks	Lithemen	Mail carriers	Telegraph operators	Telephone operators	Other pursuits
Suicide	10 to 19												1
	20 to 29												1
	30 to 39												1
	40 to 49				1				1	1			1
	50 to 59												
	60 to 69	1								1			
	70 to 79					1							
	80 and over										1		
Totals		1			1	1			1	2	1	1	8
Violent deaths (suicide excepted)	10 to 19												2
	20 to 29			1	1								2
	30 to 39				1	1					1		
	40 to 49					1						1	
	50 to 59			2		1							
	60 to 69			4		1							1
	70 to 79												
	80 and over					1							
Totals			8	2	4			1	1	1	1	5	
All other diseases and causes of death	10 to 19												1
	20 to 29												1
	30 to 39	1				1				1			1
	40 to 49			1		2					1		1
	50 to 59			2		1						1	
	60 to 69		3	2		3							1
	70 to 79				1	3							
	80 and over												
Totals	1	4	5	1	7				1	1	3	3	
Summary	10 to 19										1		2
	20 to 29		1	1	1					1	2	5	5
	30 to 39	22	1	2	3	6		1	3	5	4	5	4
	40 to 49	33	3	4	1	10		1	3	3	3	4	7
	50 to 59	4	4	21	2	12		1	1	12	7	3	10
	60 to 69	7	8	30	3	15		1	1	7	2		8
	70 to 79	1	3	18	4	18				6	2		6
	80 and over	1		5		3					1		1
Totals	25	20	84	14	64		4	8	34	22	17	43	

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AND AGE GROUPS, NEW JERSEY, 1932—Continued

TRADE	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	Total
Bankers, brokers and moneylenders	1																		1
Clerks in stores	6																		6
Deliverymen	1																		1
Laborers		1																	1
Real estate and insurance agents and officials				1															1
Salesmen and saleswomen			5																5
Undertakers				3															3
Wholesale and retail dealers				18															18
Other pursuits				28															28
PUBLIC SERVICE (NOT ELSEWHERE CLASSIFIED)				6															6
Firemen (fire department)				6															6
Laborers (public service)																			
Marshals, sheriffs, detectives, etc.																			
Officials and inspectors (city, county, state, U. S.)																			
Policemen																			
Soldiers, sailors and marines																			
Other pursuits																			
	11	1	1	19	24	67	2				1					2	1		2
	3	4	3	1	4	1	2				1					3	3		4
	1	1	4	1	1	1	1				1					1	4		4
	1			2	2	1	1				2					2	5		5
	1			1	1	6	2				1					1	4		6
	3	8	8	5	14	32	1	101	13		10	2	4	14	6	25			
		3			2	3	1	5			1		1		1				1
		2	2	2	10	8		11			2	1	2						3
	3	3	3	3	5	8		15			1		1						7
	1			1	4	9		27			1		3	5					6
				5	2	1	15						1	1					6
				1	1	5		5					1						
	7	8	8	4	18	47	4	86	7		1	5	2	8	8	1			22
		13	2	1	10			3	4										
	10	9	5	6	32	1	32	11			1	6	1	4	8				6
	1	5	7	20	71	2	89	10			1	9	5	6	15	4			13
	16	5	7	9	45	9	211	20			4	16	6	8	21				17
	22	10	4	12	82	122	5	286	16		17	13	3	27	35	8			66
	27	9	5	8	87	119	7	337	15		7	23	8	40	36	8			124
	27	5	4	49	62	5	244	9			8	17	5	17	18	1			69
	10	2	1	1	22	18	1	93	4		1	4	2	6	6	2			17
	103	59	36	47	311	538	25	1295	89		34	88	29	103	135	31			312

TABLE 21.—DEATHS BY OCCUPATIONS

		Architects	Authors, editors and reporters	Chemists, assayers, etc.	Civil and mining engineers and surveyors	Clergymen	Dentists	Designers, draftsmen and inventors	Lawyers, judges and justices	Musicians and teachers of music	Photographers	Physicians and surgeons	Teachers and other educators
Suicide	10 to 19				1					2			2
	20 to 29					1				1		1	
	30 to 39												
	40 to 49				1					1			1
	50 to 59												1
	60 to 69				1				2				1
	70 to 79							1		1			1
	80 and over						1			1			
	Totals				4	1	3	3	3	6	1	3	5
	Violent deaths (suicide excepted)	10 to 19											
20 to 29			1	1			1						1
30 to 39						1				2		1	
40 to 49									2		1		
50 to 59								1			1		
60 to 69			1										
70 to 79													1
80 and over													1
Totals		2	1		1	1	1	2	4	3		14	
All other diseases and causes of death	10 to 19												
	20 to 29		1	1						1			3
	30 to 39			1						4			1
	40 to 49	1		3						1		1	2
	50 to 59	2	1	2		2		2	3	4		2	4
	60 to 69	1		1		2	1					2	1
	70 to 79		1	1			1					3	1
	80 and over		2	1		1				1			
Totals	4	4	6	5	9	2	2	3	12		8	12	
Summary	10 to 19							2			1		26
	20 to 29		12	4	1			2	1	6	1		21
	30 to 39	1	6	6	3	2	4	8	12	3	1		21
	40 to 49	4	5	4	7	5	4	4	6	12	3	8	29
	50 to 59	2	5	7	7	21	6	6	19	16	4	18	37
	60 to 69	1	7	12	11	26	3	4	24	13	4	21	49
	70 to 79	6	5	4	18	9	6	13	13	3	3	20	53
	80 and over	2	3	1	6	15	1	1	8	3	1	6	22
Totals	28	31	39	42	88	26	27	79	75	20	74	237	

BUREAU OF VITAL STATISTICS

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AND AGE GROUPS, NEW JERSEY, 1932—Continued

Other professional and semi-professional pursuits	DOMESTIC AND PERSONAL SERVICE	Barbers, hairdressers and manicurists	Bartenders	Hotel keepers and managers	Housekeepers and stewards	Janitors and sextons	Laundrers and laundresses	Porters (except in stores)	Restaurant, cafe and lunch room keepers	Saloonkeepers	Servants	Walters	Other Pursuits	CLERICAL OCCUPATIONS	Agents, canvassers and collectors	Bookkeepers, cashiers and accountants	Clerks (except clerks in stores)	Other clerical pursuits	Grand Total
4	1	1	1	1	11	1	1	1	1	1	1	1	1	1	1	1	1	1	5
1	1	1	1	1	21	1	1	1	1	1	1	1	1	1	1	1	1	1	72
1	1	1	1	1	24	1	1	1	1	1	1	1	1	1	1	1	1	1	113
2	2	2	2	2	14	1	1	1	4	1	1	1	1	1	1	1	1	1	159
2	2	2	2	2	14	1	1	1	4	1	1	1	1	1	1	1	1	1	185
5	5	5	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	89
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	31
9	4	1	3	85	4	2	7	9	2	4	3	2	3	7	33	2	662	8	
7	1	1	1	7	32	1	1	3	6	6	3	3	3	1	6	4	72	4	
6	1	1	1	46	46	1	1	4	4	3	3	3	3	2	15	4	293	2	
3	3	3	3	44	1	1	1	2	2	2	2	2	2	2	3	3	287	3	
2	2	2	2	62	1	1	1	2	1	1	1	1	1	1	7	5	360	2	
1	4	4	4	93	3	3	3	4	3	3	3	3	3	1	2	2	325	2	
1	1	1	1	82	1	1	3	2	1	1	1	1	1	1	1	1	306	1	
1	1	1	1	61	1	1	1	2	2	2	2	2	2	1	1	1	177	1	
20	8	2	10	427	8	3	9	5	1	23	12	23	2	15	46	14	1918	20	
2	1	1	1	25	1	1	1	1	1	3	1	2	2	2	3	5	60	2	
3	1	1	1	210	2	2	2	2	2	10	1	2	4	12	11	11	343	3	
4	1	1	1	234	1	1	1	1	1	13	2	6	1	4	12	2	412	4	
4	2	2	2	172	1	1	1	1	1	11	1	4	1	2	8	3	424	4	
3	4	1	3	267	5	1	4	2	2	9	3	6	1	4	10	5	569	3	
3	2	3	3	318	3	1	3	3	3	7	2	11	1	1	9	9	576	3	
5	2	2	2	194	1	1	1	1	1	4	2	2	1	1	3	3	365	5	
1	1	1	1	68	1	1	1	1	1	6	1	1	1	3	3	3	120	1	
24	12	2	10	1488	11	6	8	6	6	63	9	32	3	21	57	21	2869	24	
2	1	1	1	68	1	1	1	1	1	15	1	6	4	4	26	14	278	2	
39	4	1	2	589	3	16	5	1	1	52	13	17	2	26	145	50	1810	39	
31	19	2	2	1058	8	8	9	8	8	69	20	28	5	27	95	30	2783	31	
39	30	7	7	1488	13	8	17	20	2	97	32	45	5	41	107	28	4292	39	
44	33	4	20	2192	51	21	26	29	3	101	30	64	13	47	143	27	6134	44	
71	37	2	15	2821	62	13	14	17	3	80	17	76	17	54	144	17	7194	71	
50	26	1	16	2409	38	5	18	8	1	51	6	49	6	37	84	12	5571	50	
10	7	5	5	1081	18	1	1	2	1	22	2	13	3	9	20	1	2247	10	
286	156	101	66	11706	193	73	90	84	11	487	121	293	51	245	784	179	20249	286	

TABULATION OF DEATHS IN RIDGEWOOD VILLAGE FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List No.	CAUSE OF DEATH	AGE PERIODS														Unknown						
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39		40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over
1	Typhoid fever																					
2	Typhus fever																					
3	Malaria																					
4	Smallpox																					
5	Measles																					
6	Scarlet fever	1		1																		
7	Whooping cough											1										
8	Diphtheria and croup																					
9	Influenza	2	2												1			1				
10	Asiatic cholera																					
11	Cholera nostras																					
12	Other epidemic diseases																					
13	Tuberculosis of the lungs	6	3	3	1								2	3					1			
14	Tuberculosis meningitis																					
15	Other forms of tuberculosis	1	1										1									
16	Cancer and other malignant tumors	19	5	14	1								1		1	5	4	6	2			
17	Simple meningitis																					
18	Cerebral hemorrhage and softening	10	3	7	1								1		2	1	2	3			1	
19	Organic diseases of the heart	35	18	17	1							1	1	2	2	5	4	11	8		1	
21	Bronchitis	1		1																		
22	Pneumonia	6	3	3	1	1								1						1		
23	Other diseases of the respiratory system (tuberculosis excepted)	3	2	1		1				1									1	1		
24	Diseases of the stomach (cancer excepted)																					
25	Diarrhoea and enteritis (under 2 years)																					
26	Appendicitis and typhilitis	1	1											1								
27	Hernia, intestinal obstruction	1		1											1							
28	Cirrhosis of the liver	1		1															1			
29	Acute nephritis and Bright's disease	21	9	12												1	2	5	8		5	
30	Noncancerous tumors and other diseases of the female genital organs	1		1																		
31	Puerperal septicaemia (puerperal fever, peritonitis)	1		1																		
32	Other puerperal accidents of pregnancy & labor	1		1	1										1							
33	Congenital debility and malformations	5	5								5											
34	Senility																					
36	Suicide	6	4	2										1	1	1	1	1		1		
35	Violent deaths (suicide excepted)	9	5	4												1	1	1		1	1	
37	Other diseases	17	9	8								1	2	3		2	1	7	4	1	1	
38	Unknown or ill-defined diseases																					
	Total	148	70	78	6	7				7	1	4	14	8	10	19	26	36	19	4		

Estimated population, 13,200.

Total resident deaths, 148.

Rate per 1,000 population, 11.2.

TABULATION OF DEATHS IN BLOOMFIELD TOWN FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged international List No	CAUSE OF DEATH	AGE PERIODS																				
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
						Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
1	Typhoid fever																					
2	Typhus fever																					
3	Malaria																					
4	Smallpox																					
5	Measles																					
6	Scarlet fever	2	1	1								1		1								
7	Whooping cough																					
8	Diphtheria and croup	1		1				1		1												
9	Influenza	6	1	5		1				1				1		1	2	1				
10	Asiatic cholera																					
11	Cholera nostras																					
12	Other epidemic diseases	4		4											2		1	1				
13	Tuberculosis of the lungs	16	11	5	2							1	3	5	3	2	1	1				
14	Tuberculosis meningitis	1	1																			
15	Other forms of tuberculosis	2		2	1							1	1	1								
16	Cancer and other malignant tumors	44	22	22								1		1	4	13	12	13				
17	Simple meningitis	2		2	1			1		1												
18	Cerebral hemorrhage and softening	24	8	16			1		1						1	6	9	6	1			
19	Organic diseases of the heart	83	40	43	2						1	2	3	4	7	12	22	23	7	2		
21	Bronchitis																					
22	Pneumonia	11	5	6	1							1		1	2	2	4	1				
23	Other diseases of the respiratory system (tuberculosis excepted)	11	4	7	2	2	1			3			1	1		2		2	2			
24	Diseases of the stomach (cancer excepted)	7	7		1										2	2						
25	Diarrhoea and enteritis (under 2 years)																					
26	Appendicitis and typhilitis	7	6	1	1						1	1	1	1	2		1					
27	Hernia, intestinal obstruction	2		2									1					1				
28	Cirrhosis of the liver	2	1	1													1	1				
29	Acute nephritis and Bright's disease	36	10	26								1		3	4	2	3	11	12			
30	Noncancerous tumors and other diseases of the female genital organs	1		1										1								
31	Puerperal septicaemia (puerperal fever, peritonitis)														1							
32	Other puerperal accidents of pregnancy & labor	4		4										1	3							
33	Congenital debility and malformations	15	10	5	2	15				15												
34	Suicide														2	1	3					
35	Violent deaths (suicide excepted)	16	12	4								2	2	3	4	2	2	1				
37	Other diseases	59	32	27	1	2	1	1	1	5	1	1	3	4	5	14	13	10	1	2		
38	Unknown or ill-defined diseases	1		1											1							
	Total	364	176	188	14	20	1	1	4	1	27	3	12	16	32	38	61	72	73	26	4	

Estimated population, 41,603.

Total resident deaths, 364.

Rate per 1,000 population, 8.7.

TABULATION OF DEATHS IN MONTCLAIR TOWN FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List No.	CAUSE OF DEATH	AGE PERIODS																				
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
1	Typhoid fever																					
2	Typhus fever																					
3	Malaria																					
4	Smallpox																					
5	Measles																					
6	Scarlet fever	1		1										1								
7	Whooping cough	3	3		3	1	1	1		3												
8	Diphtheria and croup																					
9	Influenza	3	2	1	1										1			1	1			
10	Asiatic cholera																					
11	Cholera nostras	1	1																			
12	Other epidemic diseases	1	1																			
13	Tuberculosis of the lungs	29	15	14	15					1			3	8	6	3	2	2		1		
14	Tuberculosis meningitis	1	1		1				1	1												
15	Other forms of tuberculosis	4	1	3	2								1	1	2							
16	Cancer and other malignant tumors	54	19	35	5								1	5	5	14	15	10	7			
17	Simple meningitis																		1			
18	Cerebral hemorrhage and softening	33	15	18	4									1	5	3	4	9	10	6		
19	Organic diseases of the heart	101	43	58	15									1	5	7	13	24	24	21	1	6
21	Bronchitis																					
22	Pneumonia	19	10	9	7	3	2	1		6				2	3	3	2	2	1			
23	Other diseases of the respiratory system (tuberculosis excepted)	8	5	3	3	1				1							1	1	2	3		
24	Diseases of the stomach (cancer excepted)	6	4	2	2									1	2	1		1	1			
25	Diarrhoea and enteritis (under 2 years)																					
26	Appendicitis and typhlitis	3	2	1										1	2							
27	Hernia, intestinal obstruction	1	1		1																	
28	Cirrhosis of the liver	2	1	1																		
29	Acute nephritis and Bright's disease	35	10	25	9											2	8	10	10	5		
30	Noncancerous tumors and other diseases of the female genital organs	1		1												1						
31	Puerperal septicemia (puerperal fever, peritonitis)	2		2											1	1						
32	Other puerperal accidents of pregnancy & labor	2		2											2							
33	Congenital debility and malformations	15	11	4	4	15				15												
34	Senility																					
36	Suicide	18	13	5										3	1	5	3	5		2		
37	Violent deaths (suicide excepted)	21	11	10	5								1	2	3	1	5	5		4		
35	Other diseases	68	34	34	10	1		1		3			1	2	2	6	8	11	11	14	10	
38	Unknown or ill-defined diseases																					
	Total	431	201	230	86	21	3	2	1	2	29	2	9	25	34	51	58	83	74	59	7	

Estimated population, 44,015.

Total resident deaths, 431.

Rate per 1,000 population, 9.5.

TABULATION OF DEATHS IN LONG BRANCH CITY FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged international List No.	CAUSE OF DEATH	AGE PERIODS																					
		Total	Male	Female	Color of other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown	
1	Typhoid fever																						
2	Typhus fever																						
3	Malaria																						
4	Smallpox																						
5	Measles																						
6	Scarlet fever	1	1					1		1													
7	Whooping cough																						
8	Diphtheria and croup																						
9	Influenza	3	1	2										1									
10	Asiatic cholera																						
11	Cholera nostras	1	1																				
12	Other epidemic diseases																						
13	Tuberculosis of the lungs	11	6	5	3							1	2	2	2	1	1						
14	Tuberculosis meningitis				2																		
15	Other forms of tuberculosis	3	2	1	2									1	1								
16	Cancer and other malignant tumors	14	6	8	3									1	1	1	2	3	3				
17	Simple meningitis	1	1		1				1														
18	Cerebral hemorrhage and softening	28	11	17	4										3	6	8	8	2			1	
19	Organic diseases of the heart	58	26	32	3							1	1	1	4	5	18	14	5				
20	Stroke																						
21	Bronchitis																						
22	Pneumonia	7	7	2	4	2				2					1			2	2				
23	Other diseases of the respiratory system (tuberculosis excepted)	3	3		2	1				1					1		1						
24	Diseases of the stomach (cancer excepted)																						
25	Diarrhoea and enteritis (under 2 years)																						
26	Appendicitis and typhlitis	1		1									1										
27	Hernia, intestinal obstruction	1	1														1						
28	Cirrhosis of the liver	2	2																				
29	Acute nephritis and Bright's disease	32	15	17	3									1	1	1	1	10		8		1	
30	Noncancerous tumors and other diseases of the female genital organs																						
31	Puerperal septicaemia (puerperal fever, peritonitis)			2											2								
32	Other puerperal accidents of pregnancy & labor			1																			
33	Congenital debility and malformations	9	8	1	2	8			1	9													
34	Senility	1	1																				
35	Suicide	5	4	1											2	1	1		1				
36	Violent deaths (suicide excepted)	13	9	4	1				1	1				1	2	1	3						
37	Other diseases	29	16	13	2	1				1				1		1	10	7		2		1	
38	Unknown or ill-defined diseases																						
	Total	219	119	100	26	12	1	1	2	16	2	3	8	11	16	22	62	45	18	3			

Estimated population, 19,470.

Total resident deaths, 219.

Rate per 1,000 population, 11.2.

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List No	CAUSE OF DEATH	AGE PERIODS														Unknown						
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39		40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over
						Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39		40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over
1	Typhoid fever																					
2	Typhus fever																					
3	Malaria																					
4	Smallpox																					
5	Measles																					
6	Scarlet fever	1		1																		
7	Whooping cough	3	2	1		2				2		1										
8	Diphtheria and croup																					
9	Influenza	7	4	3	1			1		1					1	1	2	1	1			
10	Asiatic cholera																					
11	Cholera nostras											1	2	1				1	1			
12	Other epidemic diseases	6	3	3																		
13	Tuberculosis of the lungs	18	13	5	3							1	3	4	3	5	1	1				
14	Tuberculosis meningitis																					
15	Other forms of tuberculosis	1		1			1			1												
16	Cancer and other malignant tumors	47	30	17	1	1	1			1			1	2	2	10	14	14	3			
17	Simple meningitis	1		1		1				1												
18	Cerebral hemorrhage and softening	39	29	19	2								1		2	5	10	16	5			
19	Organic diseases of the heart	102	45	57	2	1				1		2		7	7	14	14	37	17	3		
21	Bronchitis	4	3	1	1		1			1				1					1		1	
22	Pneumonia	9	4	5	2	1	1			2					2	1	2	2	1	1		
23	Other diseases of the respiratory system (tuberculosis excepted)	14	6	8		3	1			4						1	1	4	4			
24	Diseases of the stomach (cancer excepted)	1		1													1					
25	Diarrhoea and enteritis (under 2 years)	5	2	3	3	5				5												
26	Appendicitis and typhlitis	4	2	2								1	1	1				1				
27	Hernia, intestinal obstruction	5	3	2												1	4					
28	Cirrhosis of the liver	3	1	2														1	1			
29	Acute nephritis and Bright's disease	44	16	28	1										1	1	7	11	16	8		
30	Noncancerous tumors and other diseases of the female genital organs	2		2												1	1					
31	Puerperal septicaemia (puerperal fever, peritonitis)	2		2										1	1							
32	Other puerperal accidents of pregnancy & labor	1		1										1								
33	Congenital debility and malformations	17	9	8	1	17				17												
34	Senility	2		2																		
36	Suicide	7		7										1	2	1						
35	Violent deaths (suicide excepted)	34	23	11	2		1	1		2		3	2	2	8	6	2	4	2	4		
37	Other diseases	69	30	39	3	2				3		1		2	12	8	15	14	2	2		
38	Unknown or ill-defined diseases																					
	Total	439	223	216	23	32	4	3	2	41	2	11	12	26	40	56	85	114	46	6		

Estimated population, 25,465.

Total resident deaths, 439.

Rate per 1,000 population, 12.3.

TABULATION OF DEATHS IN SALEM COUNTY FOR 1932, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATHS

Abridged International List No.	CAUSE OF DEATH	AGE PERIODS																					
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown	
1	Typhoid fever																						
2	Typhus fever																						
3	Malaria																						
4	Smallpox																						
5	Measles																						
6	Scarlet fever	1	1			1				1													
7	Whooping cough	4	2	2	2	3	1			4													
8	Diphtheria and croup																						
9	Influenza	14	4	10	1	2				2		1		3	1	1	2	1	2	1		1	
10	Asiatic cholera																						
11	Cholera nostras																						
12	Other epidemic diseases	1		1												1							
13	Tuberculosis of the lungs	12	9	3	4								3	4	2	2	1						
14	Tuberculosis meningitis																						
15	Other forms of tuberculosis	2	1	1		1				1			1	1	5	13	9	14	8				
16	Cancer and other malignant tumors	51	16	35	4																		
17	Simple meningitis																						
18	Cerebral hemorrhage and softening	31	12	19	4									2	4	5	10	10					
19	Organic diseases of the heart	96	57	39	11								2	5	8	17	23	16	19	6			
20	Bronchitis	3	2	1													1	1	1				
21	Pneumonia	13	9	4	2	2		1		3			1	1	2	2	1	1	3	1			
22	Other diseases of the respiratory system (tuberculosis excepted)																						
23	Diseases of the stomach (cancer excepted)	20	12	8	4	7	1			8		1	2	1	2	1	1	3			2		
24	Diarrhoea and enteritis (under 2 years)	7	5	2	3								1	1	2	1	1	1					
25	Appendicitis and typhlitis	6		6		6				6													
26	Hernia, intestinal obstruction	2	2										1										
27	Fernia, intestinal obstruction	3	1	2	2										2	1							
28	Cirrhosis of the liver	2	1	1	1																		
29	Acute nephritis and Bright's disease	43	18	25	7								1		6	8	9	12	7	1			
30	Noncancerous tumors and other diseases of the female genital organs	2		2										1		1							
31	Puerperal septicaemia (puerperal fever, peritonitis)																						
32	Other puerperal accidents of pregnancy & labor	2		2												1							
33	Congenital debility and malformations	18	8	10	3	18				18			1		1								
34	Senility	3		3																			
35	Suicide	5	4	1	3	1							1		1	2	1	1	2				
36	Violent deaths (suicide excepted)	25	17	8	3	1				1	2	2	3	6	2	2	2	3	3				
37	Other diseases	83	51	32	13	8	2			1	11	3	2	5	3	5	10	18	13	12	1		
38	Unknown or ill-defined diseases																						
	Total	449	232	217	64	49	3	1	1	2	56	5	8	26	20	41	65	74	76	67	11		

Estimated population, 86,892.

Total resident deaths, 449.

Rate per 1,000 population, 12.1.

TABULATION OF DEATHS IN WESTFIELD TOWN FOR 1932 ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List No	CAUSE OF DEATH	AGE PERIODS																				
		Total	Male	Female	Color, if other than white	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
						Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
1	Typhoid fever																					
2	Typhus fever																					
3	Malaria																					
4	Smallpox																					
5	Measles																					
6	Scarlet fever																					
7	Whooping cough																					
8	Diphtheria and croup																					
9	Influenza	3	1	2							1				1		1					
10	Asiatic cholera																					
11	Cholera nostras																					
12	Other epidemic diseases																					
13	Tuberculosis of the lungs	2	1	1	2							1			1							
14	Tuberculosis meningitis																					
15	Other forms of tuberculosis	1		1													1					
16	Cancer and other malignant tumors	18	8	10	2										1	1	3	4	9			
17	Simple meningitis	1	1														1	1				
18	Cerebral hemorrhage and softening	12	5	7											1	2	1	3	5			
19	Organic diseases of the heart	56	24	32	2								2	3	2	7	10	16	12	4		
21	Bronchitis																					
22	Pneumonia	6	4	2	1	1	1			2		1		1		1	1					
23	Other diseases of the respiratory system (tuberculosis excepted)	5	2	3	1	1				1						3			1			
24	Diseases of the stomach (cancer excepted)	1	1																1			
25	Diarrhoea and enteritis (under 2 years)	1	1			1				1												
26	Appendicitis and typhlitis	6	2	4							1	2			1	2						
27	Hernia, intestinal obstruction																					
28	Cirrhosis of the liver																					
29	Acute nephritis and Bright's disease	13	5	8											1	2	2	4	4			
30	Noncancerous tumors and other diseases of the female genital organs	2		2											1				1			
31	Puerperal septicaemia (puerperal fever, peritonitis)																					
32	Other puerperal accidents of pregnancy & labor	1		1										1								
33	Congenital debility and malformations	4	2	2	1	4				4												
34	Senility	1	1																			
36	Suicide	3	2	1													2		1			
35	Violent deaths (suicide excepted)	6	4	2	1					1	2		1	2			1					
37	Other diseases	20	10	10	3	2	1			2	1	1		1	2	3	5	4	1			
38	Unknown or ill-defined diseases	2	1	1													1	1				
	Total	164	75	89	13	9	2		1	12	3	5	4	8	11	23	30	38	26	4		

Estimated population, 17,279.

Total resident deaths, 164.

Rate per 1,000 population, 9.4.

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