

FORTY-FIFTH  
ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1922



TRENTON, N. J.  
PUBLISHED BY THE STATE

1922

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**Department of Health of the State of New Jersey**

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JACOB C. PRICE, M.D., Director.

The offices of the Department are in the State House, Trenton, N. J.

TRENTON, N. J., June 30, 1922.

*To His Excellency Edward I. Edwards, Governor of New Jersey:*

SIR: I am transmitting herewith the Forty-fifth Annual Report of the Department of Health of the State of New Jersey for the year ending June 30, 1922, in accordance with Chapter 288 of the Laws of 1915.

Very respectfully,

J. C. PRICE,  
*Director.*

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## Report of the Director

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A deep interest in public health has taken possession of the laity and is fast sweeping over the entire civilized world. This condition is interesting not only to all responsible members of the community, but employers of labor, Government officials and manufacturers are now realizing that to conserve public health is not only an economic problem which we cannot afford to overlook, it is a cooperative task in which every member of the community must play his full part. Humanity demands this, Government officials realize its necessity, civilization itself would halt should endeavors cease. We are passing from an era of curing disease to an era of preventing it. Experience has taught us that it is much better to guard well the precipice at the top than to wait at the bottom with an ambulance. Our first duty as public health officials is to prevent disease; this accomplished, the needs of other agencies may be dispensed with, thus inability, incapacity and premature death is lessened. Much has been achieved since the beginning of the present century. Longevity has materially increased and our social and physical life has vastly improved. Preventive medicine means to increase the power of resistance of the individual and of the community. Smallpox, typhoid fever, scarlet fever and diphtheria have shown a marked decline during the last decade as the result of better sanitation, isolation and the use of antitoxin.



In matters of public health ignorance is the chief curse. As knowledge grows we are made aware of the part played by ignorance in the realm of disease. Nor is it too much to say that in proportion as knowledge spreads among the populace, disease and incapacity decline. In preventive medicine knowledge is the sheet anchor. In the final analysis the accomplishment of results rests upon the work of the local health officers, whose duties are manifold, increasingly so by reason of the activities of the State Department of Health. The Legislature each year enacts more health laws to be added to the mass already upon the statute books. Local health officers might be better qualified to fulfill their daily vocations through the establishment of a course of sanitation and hygiene, lectures and practical demonstrations given in milk and water inspection, municipal water supplies, sewage and garbage disposal, nuisances, bacteriological examinations of milk and water, diagnoses and control of communicable diseases, industrial diseases, prevention of occupational diseases, and infant welfare work.

One of the fundamental principles of health work to-day is teaching the greater mass of our citizens the elements of sanitation and hygiene, including the problem of food, shelter and defense. It has been said that we stand at the door of opportunity. Let us strive not at haphazards as the whims of expedience invite, but build upon principles as eternal as nature's laws. Eminent men have gone before us, and let those who are to follow them be men of knowledge, clear of mind, sympathetic of heart, possessed of high human endeavors and a firm resolve for the upbuilding of humanity.

There is probably no part of public health work that demands closer scrutiny than that of local health administration. There should be perfect coordination in all branches in order to achieve results. Each health division should be of sufficient size to employ a trained, full-time health officer, and there should be a board of health in every district, which should be familiar with the fundamentals of disease prevention and health promotion, to assist and support the health officer in his endeavors to secure better standards of living, better housing and working conditions.

It is said that the health officer is the family physician for his entire district and is engaged in a campaign for the study and development of sound health. It is the opinion of the Department of Health, in order to secure better results, that the State should be divided into sanitary districts of not less than twenty-five thousand inhabitants, comprising a board of health of sufficient size, and a full-time health officer, preferably a physician, who would discuss health conditions at public gatherings, trace courses of infection and prevent the spread of communicable diseases through early diagnosis.

Constant effort on the part of the Bureau of Food and Drugs to improve conditions in the State food supply has been rewarded by a marked change for the better. In no article of food examined has there been more improvement than that of milk. This universal food product demands still further attention through the safeguarding of dairy animals. There should be more effective laws and regulations and a firmer administration in every area. Too much milk now sold comes from dairies more or less tuberculous, and is produced under conditions both insanitary and unwholesome, that is largely permissive and not supervised.

In the preparation, handling and transportation of the food supply for all communities great care should be exercised in order to prevent disease. Adequate inspection and supervision should be given all meats, fruits, vegetables, slaughter houses, public abattoirs and canning factories.

The Bureau has placed emphasis upon the importance of pasteurization. If pasteurization is to be carried out in a satisfactory manner, constant vigilance is demanded to prevent careless operation and possible contamination of milk by repeated handling. It is believed that greater protection is afforded the consumer of milk by the supervision given to pasteurizing plants than in any other line of milk control. At the present time there are approximately 190 creameries and milk pasteurizing plants in operation in New Jersey.

The Bureau has carried on dairy inspection with representatives of local boards of health, as it is believed that the interest of the local authorities in their milk supplies is essential if perma-

ment improvement is to result. Such joint inspections lessen the chances of giving conflicting orders or recommendations to the dairymen. Local boards of health have been furnished with copies of the recommendations made to dairymen and have been requested to make reinspections.

A proposed milk ordinance which may serve as a guide to local boards of health has been prepared and is ready for distribution to those boards of health requesting it.

It has been learned during the year that certain dairymen in the State have held cows, which have reacted to the tuberculin test for considerable periods of time on their dairy premises, and that the milk from these cows has been sold for human consumption. The Bureau of Foods and Drugs enforces the Food and Drugs Act. This law prohibits the sale of the product of a diseased animal. Every effort is being made by this Bureau to prevent the sale of milk from cows which have reacted to the tuberculin test.

Repeated inspections have been made of the twenty-six cold storage warehouses located in New Jersey. These warehouses have been found to be operated in a sanitary manner and are so equipped and operated that the foods held therein have been preserved successfully. In accordance with Section 8, Chapter 101 of the Laws of 1916, which requires the State Director of Health to extend the period of storage beyond twelve months, for any particular article of food held in a cold storage warehouse, providing the article is found to be in suitable condition for further storage, the time limit of storage was extended on the foods indicated in the following table:

<i>Amount of Food.</i>	<i>Kind of Food.</i>	<i>Period of Extension.</i>
73 bbls.,	Tongues,	2 weeks.
48 cans,	Egg yolk,	4 weeks.
128 bbls.,	Condensed Milk	2 weeks.
148 cans,	Egg yolk,	1 week.
3,019 lbs.,	Fish,	4 weeks.
38 bbls.,	Condensed Milk,	2 weeks.
58 bbls.,	Condensed Milk,	4 weeks.
90 carcasses,	Mutton,	6 weeks.
21,447 lbs.,	Fish,	4 weeks.
1,200 lbs.,	Fish,	4 weeks.

<i>Amount of Food.</i>	<i>Kind of Food.</i>	<i>Period of Extension.</i>
350 lbs.,	Beef,	6 weeks.
106 bbls.,	Poultry,	4 weeks.
9 boxes,	Poultry,	4 weeks.
363 bbls.,	Poultry,	2 weeks.
33 boxes,	Poultry,	2 weeks.
16a boxes,	Fish,	8 weeks.

Approximately 2,600 samples of milk and cream have been collected up to June 1st for chemical analyses to determine if the legal standards were being met. Of this number approximately 260 samples were found to differ from the legal standard.

Approximately 600 samples of foods other than milk and cream and 350 samples of drugs, which have been submitted to the laboratory to ascertain if they are adulterated or misbranded, were collected by representatives of the Bureau. The drug samples were collected to ascertain if they complied with the standards provided by the United States Pharmacopœia of the National Formulary.

A large number of samples of non-alcoholic beverages which were collected were found to contain saccharin. It has been necessary to bring prosecution against certain manufacturers for continued violations of Chapter 357 of the Laws of 1915. Investigations made by our representatives prove that many operators of non-alcoholic beverage establishments are persons of low intelligence and with little or no education or experience which would fit them to handle food products. As the most of the business of manufacturing non-alcoholic beverages is carried on within the limits of municipalities, it seems reasonable to expect the local boards of health to supervise the sanitary conditions of such establishments. An attempt has been made by this Bureau to interest local authorities in this work.

There are in New Jersey more than five hundred firms engaged in the manufacture of ice cream and the output of these establishments exceeds more than seven million gallons. During the past year a representative of this Department has inspected these establishments and found a great majority of them well equipped and the business carried on under sanitary conditions, using pure materials and giving particular care to the apparatus, containers and utensils. Too many of the retailers, however, are

lax in their handling of this important food product, now universally used for human consumption, and it behooves local boards of health to carefully scrutinize these dealers, as the law gives them ample power to protect the product from methods deleterious to health.

The urgent need of a pure water supply for the various communities is at present receiving such consideration as its importance demands. In years gone by little attention was given to this most important of life's necessities, but as the relation of uncleanness and contamination to disease came to be understood, public water supplies have been installed even in many of the smaller municipalities of the State. Effective supervision is given, including control of sources; methods of filtration and storage distribution are wisely provided for. Bacterial and chemical analyses are regularly made of all the State's public supplies until water-borne disease is reduced to a minimum. One of the dangers to be met is the problem of sewage and sewage disposal, owing to the growth of the municipalities of the State, together with the installation of sewerage systems and extensions to their existing systems, has increased the pollution of our streams used jointly as carriers of sewage and as sources of public water supplies, and it has become self-evident that all water supplies taken from surface sources must be purified before delivery to the consumer. The larger centers of population have adequate public supplies and there is sufficient sentiment created by the consumer to hold the supply at the desired standard. It is on the smaller public water supplies, not municipally owned and not willing to pay the price for the added security, that the Department has considerable difficulty in bringing about the introduction of a proper water purification system. It is this feature of the work that has been given a great deal of attention in the last year, and the results secured have not been altogether satisfactory nor is it believed that results will be entirely satisfactory until these public water supplies are municipally owned.

Objections to drinking water in which numerous people have bathed during the summer months have increased from consumers of purified water supplies in the northern and the extreme

southern part of the State. Complaints have also been received relative to the establishment of the numerous bungalow colonies that have sprung up in and around these bathing grounds. Sanitary regulations for the prevention of the pollution of the water supplies have been enforced, with the co-operation of the several water companies and the local boards of health, in the bungalow colonies; but it is impossible under the present laws to regulate bathing in streams the waters of which are used for potable purposes.

Among the civilized nations of the world the United States alone has no national system of vital statistics. This results from the fact that registration is entirely the function of the State or municipal governments in the States where no general law is enforced. Accuracy and completeness of registration and tabulation is essential if these records are to be of value to future generations.

The Bureau of Vital Statistics of New Jersey was formed more than forty-four years ago in conjunction with and as a part of the original State Board of Health. Records of births, marriages and deaths from 1848 to 1878 were received from the Secretary of State, who had been receiving from local officers each year, lists of vital information concerning events which occurred in their several districts. These records and some four million others, which have been collected since 1878, are carefully preserved in the fire-proof vaults of the Bureau. They are referred to daily by the searching force of the Bureau and other persons authorized to consult them for legal and genealogical purposes. Attention is called to the large number of searches made and certified copies issued by the Bureau. Approximately ten thousand searches are made annually for which some four thousand dollars in fees are collected. About half of the information furnished is for employment, enlistment, school and pension purposes for which the law does not require a fee.

Each year in the annual report is presented an increased amount of statistical data, which is first prepared monthly by careful tabulation and later fully compiled at the close of the year with the use of modern electrical tabulating machinery.

It is felt that the charts and tables published are of inestimable value to health workers and many others who are making determined efforts to promote the public health.

The charts and tables in reference to births, marriages and deaths which follow are for the calendar year 1921.

During the year the Bureau of Vital Statistics of the State Department of Health received 37,362 certificates of death; 78,172 certificates of births; 27,815 certificates of marriage, and 3,242 certificates of still-birth, a total of 146,591.

*Population.*—The total estimated mid-year population of New Jersey for 1921 was 3,251,494.

*Deaths.*—The death-rate for 1921 was 11.49, which is the lowest since 1879.

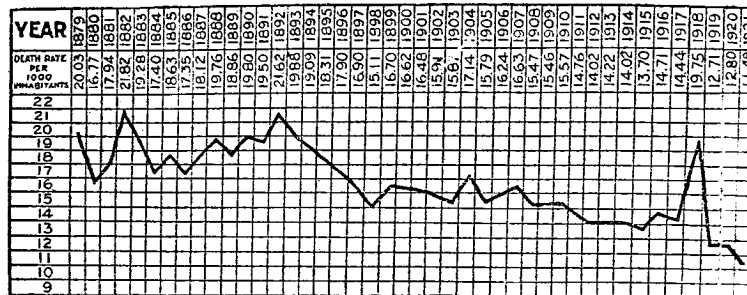
*Births.*—The birth-rate for 1921 was 24.04, which is one point less than those years which were not affected by the war.

*Infant Mortality.*—This rate for 1921 is 73.8, while the corresponding rate for the previous year was 87.2. Deaths among infants under one year have been reduced almost by one-half, as the rate for 1912 was 124.1.

*Comparative Death-rate of White and Colored Inhabitants.*—The death-rate among the whites for the year 1921 was 11.20 and among the colored inhabitants for the same year 18.84. Attention is directed to the high rates prevailing from certain diseases among our colored inhabitants. In practically every disease and group of diseases, the rate shown is considerably in excess of that of the white population, with cancer as the only notable exception. An interesting table showing the variation between the rates of these classes of population is printed in the report of the Bureau of Vital Statistics in the back of this volume.

*Marriages.*—The number of marriages reported for 1921 was 27,815 which is equivalent to a rate of persons married per one thousand population of 17.10. The number of marriages reported for 1921 shows a decrease of 3,512 over the previous year, which undoubtedly reflects the economic conditions prevailing during the greater part of that year.

CHART SHOWING TOTAL DEATHS PER 1,000 POPULATION FOR 43 YEARS.



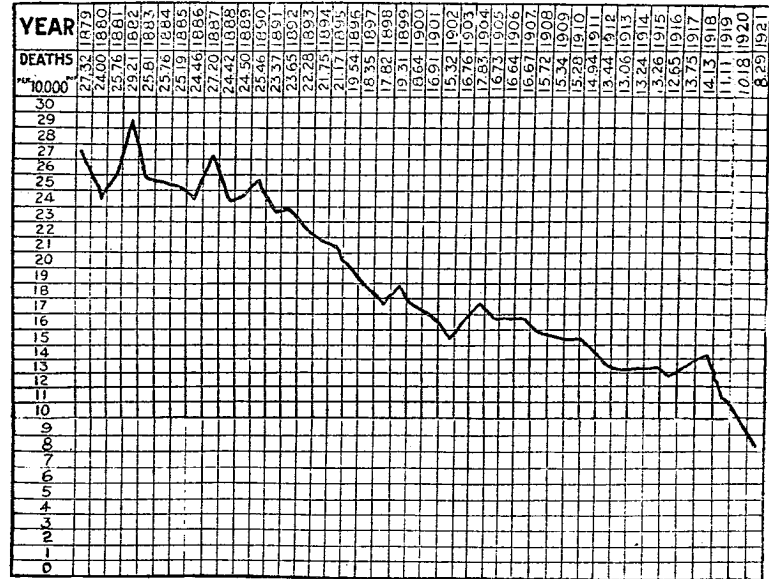
BIRTHS REPORTED, DEATHS UNDER ONE YEAR OF AGE AND DEATHS UNDER ONE YEAR PER 1,000 LIVING BIRTHS.

YEAR.	Births reported.	Deaths under 1 year of age.	Infant mortality rates.
1906	42,677	7,773	182.1
1907	44,651	7,732	173.2
1908	47,405	7,823	165.2
1909	47,508	7,658	161.2
1910	53,042	8,352	154.8
1911	58,133	7,642	131.4
1912	60,073	7,457	124.1
1913	61,432	7,542	122.7
1914	65,403	7,431	113.6
1915	66,476	7,077	106.4
1916	70,211	7,348	104.7
1917	75,309	7,582	100.7
1918	74,549	8,372	112.3
1919	70,935	6,111	86.1
1920	70,431	6,672	87.2
1921	78,172	5,773	73.8

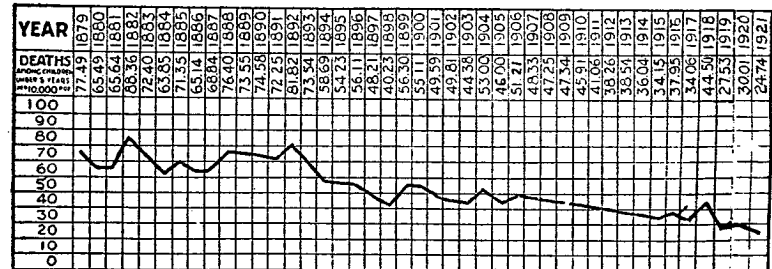
AVERAGE ANNUAL DEATH-RATES, PER 10,000 POPULATION, FROM ALL CAUSES AND FROM TUBERCULOSIS OF LUNGS FOR 43 YEARS, COMPARED WITH RATES FOR 1921.

COUNTIES.	Average annual death-rate from all causes.	Death-rate from all causes, 1921.	Average annual death-rate from tuberculosis of lungs.	Death-rate from tuberculosis of lungs, 1921.
Atlantic County, .....	158.5	141.1	14.11	8.97
Bergen County, .....	141.0	104.7	14.87	5.58
Burlington County, .....	155.9	135.0	15.69	10.46
Camden County, .....	170.9	125.1	18.88	9.24
Cape May County, .....	134.4	149.8	11.33	6.69
Cumberland County, .....	101.0	128.7	16.87	8.50
Essex County, .....	169.1	108.4	21.01	9.21
Gloucester County, .....	145.9	130.6	15.06	5.81
Hudson County, .....	183.3	111.6	20.94	26.62
Hunterdon County, .....	141.0	148.2	13.40	7.32
Mercer County, .....	167.6	111.1	19.79	9.38
Middlesex County, .....	158.0	109.8	14.45	7.60
Monmouth County, .....	152.9	145.0	14.20	8.73
Morris County, .....	120.1	130.8	16.60	9.41
Ocean County, .....	141.2	140.9	16.72	6.28
Passaic County, .....	161.4	107.6	16.94	7.14
Salem County, .....	147.7	103.0	16.17	6.83
Somerset County, .....	140.7	110.9	12.94	5.66
Sussex County, .....	131.1	132.8	12.53	7.71
Union County, .....	136.5	102.0	14.19	8.06
Warren County, .....	144.3	126.1	12.77	6.39
The State, .....	162.1	114.9	17.66	8.20

DEATHS FROM TUBERCULOSIS OF LUNGS PER 10,000 POPULATION FOR 43 YEARS.



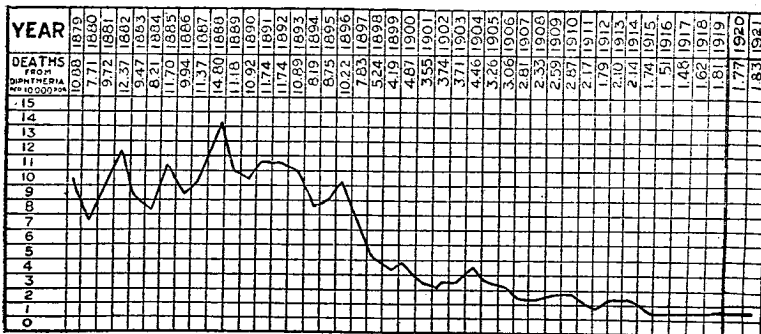
DEATHS UNDER FIVE YEARS OF AGE PER 10,000 POPULATION FOR 43 YEARS.



*Diphtheria.*—The death-rate from diphtheria for the year 1921 was 1.83, a very slight variation from the 1920 rate of 1.77. Deaths in the State during 1921 from that disease, by age pe-

roids, follow: Under one year, 32; 1 year, 85; 2 years, 70; 3 years, 80; 4 years, 71; 5 to 9 years, 207; 10 to 19 years, 39; 20 to 29 years, 3; 30 to 39 years, 6; 40 to 49 years, 4. Total, 597.

DEATHS FROM DIPHTHERIA PER 10,000 POPULATION FOR 43 YEARS.



*Typhoid Fever.*—The number of deaths from this disease in New Jersey during 1921 was 146. Of these, 80 were males and 66 females, and 9 belonged to the colored race.

The rate for this disease for the year 1921 shows a slight increase over 1920, the greater portion of which increase is the result of the epidemic which occurred in Burlington County. The rate from this disease, however, is still considerably less than one-tenth of the rate of some previous years of which the department has record.

The following list shows the counties of New Jersey in which deaths from typhoid fever occurred, with the number of such deaths for each: Atlantic, 6; Bergen, 9; Burlington, 20; Camden, 8; Cape May, 1; Cumberland, 12; Essex, 12; Gloucester, 4; Hudson, 22; Hunterdon, 1; Mercer, 10; Middlesex, 6; Monmouth, 8; Morris, 3; Ocean, 2; Passaic, 8; Salem, 4; Somerset, 5; Union, 3; Warren, 2. State, 146.

COMPARATIVE DEATH-RATES FROM TYPHOID FEVER, PER 10,000 INHABITANTS, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS.

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	Averages for ten years.
Registration area of United States.	2.10	1.65	1.79	1.54	1.24	1.33	1.34	1.25	0.92	0.78	1.39
New Jersey, .....	1.29	1.22	1.00	0.78	0.65	0.66	0.64	0.52	0.29	0.31	0.73

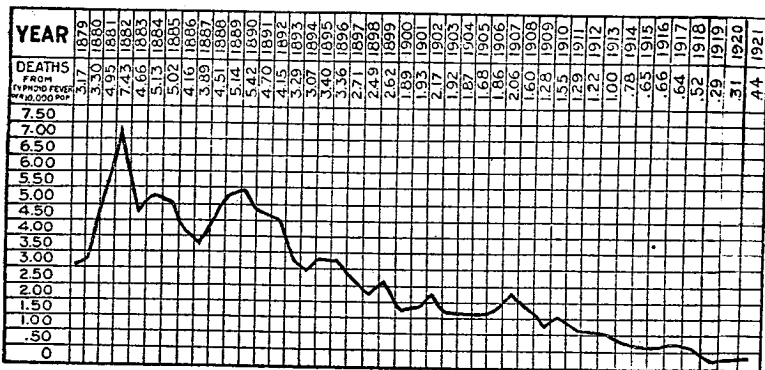
DEATHS FROM TYPHOID FEVER, BY COUNTIES, PER 10,000 POPULATION, FOR 10 YEARS.

COUNTIES.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	Averages for ten years.
Atlantic County, .....	1.06	1.14	1.47	0.59	1.59	0.77	0.43	0.49	0.11	0.69	0.91
Bergen County, .....	6.72	1.00	0.36	0.41	0.63	0.72	0.27	0.18	0.18	0.40	0.45
Burlington County, .....	3.36	1.59	1.28	1.13	1.11	1.65	1.50	0.94	4.48	2.37	1.94
Camden County, .....	1.46	1.88	1.20	0.86	1.53	1.08	0.88	0.52	0.40	0.40	1.02
Cape May County, .....	0.48	1.42	0.92	0.43	1.26	0.41	0.79	.....	.....	.....	0.51
Cumberland County, .....	1.06	0.83	1.32	1.04	1.04	0.81	0.88	0.51	0.32	0.32	1.10
Essex County, .....	0.81	0.68	0.55	0.35	0.43	0.37	0.30	0.20	0.18	0.17	0.40
Gloucester County, .....	2.60	1.28	1.01	1.49	1.47	0.73	0.95	0.47	0.20	0.80	1.10
Hudson County, .....	0.72	0.83	0.78	0.63	0.55	0.36	0.30	0.16	0.36	0.34	0.50
Hunterdon County, .....	1.78	2.37	0.30	0.60	0.30	0.81	0.61	.....	0.30	0.30	0.74
Mercer County, .....	3.23	1.83	1.45	0.85	0.43	0.61	0.45	0.35	0.43	0.60	1.06
Middlesex County, .....	1.73	0.96	1.09	0.83	0.51	0.93	0.70	0.67	0.24	0.35	0.74
Monmouth County, .....	2.87	1.62	1.50	1.68	1.46	1.35	1.71	1.31	0.23	0.73	1.45
Morris County, .....	0.78	0.25	1.12	0.38	0.37	0.61	0.48	0.36	0.36	0.35	0.50
Ocean County, .....	1.40	2.32	0.49	0.90	0.90	0.45	.....	0.44	0.45	0.39	0.52
Passaic County, .....	0.65	0.63	0.52	0.57	0.39	0.85	0.34	0.15	0.11	0.33	0.45
Salem County, .....	1.10	1.09	0.36	1.08	1.43	1.06	1.06	.....	6.80	1.05	0.90
Somerset County, .....	0.25	.....	0.24	0.24	0.47	1.86	0.69	.....	0.41	1.01	0.51
Sussex County, .....	0.39	.....	0.36	0.35	0.35	0.89	.....	0.40	.....	0.25	0.25
Union County, .....	1.81	1.36	0.35	0.85	0.42	0.47	0.53	0.17	0.44	0.14	0.61
Warren County, .....	0.68	0.89	0.66	1.06	.....	0.42	0.41	.....	0.48	0.45	0.45
The State, .....	1.22	1.00	0.78	0.65	0.66	0.64	0.52	0.29	0.31	0.44	0.65

DEATHS FROM TYPHOID FEVER IN URBAN AND RURAL DISTRICTS FOR 1921.

1921.	Estimated population.	Deaths from typhoid fever.	Rate per population.
State, .....	3,251,494	146	0.44
Incorporated municipalities of 5,000 population and above, .....	2,393,032	83	0.34
Remainder of State, .....	858,462	63	0.73

DEATHS FROM TYPHOID FEVER PER 10,000 POPULATION FOR 43 YEARS.

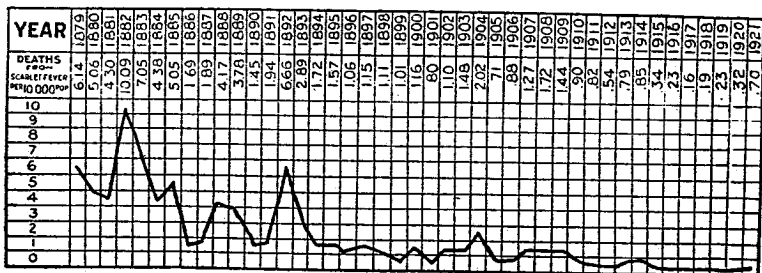


**Whooping Cough.**—The number of deaths from whooping cough in New Jersey during the year 1921 was 320, a decrease of 71 from the previous year.

The deaths from this disease by ages were: Under 1 year, 180; 1 year, 86; 2 years, 27; 3 years, 9; 4 years, 6; 5 to 9 years, 11; 50 to 59 years, 1. Total, 320.

**Scarlet Fever.**—The number of deaths occurring from this disease during the year 1921 was 228, which figure is about twice as great as that for the year 1920. The deaths by age periods follow: Under 1 year, 8; 1 year, 36; 2 years, 41; 3 years, 26; 4 years, 22; 5 to 9 years, 55; 10 to 19 years, 17; 20 to 29 years, 15; 30 to 39 years, 4; 40 to 49 years, 3; 50 to 59 years, 1. Total, 228.

DEATHS FROM SCARLET FEVER PER 10,000 POPULATION FOR 43 YEARS.



**Measles.**—The number of deaths from measles during 1921 was 104, while during the previous year 297 persons succumbed from this disease. Deaths by age periods follow: Under 1 year, 23; 1 year, 37; 2 years, 18; 3 years, 7; 4 years, 6; 5 to 9 years, 10; 10 to 19 years, 1; 20 to 29 years, 1; 30 to 39 years, 1. Total, 104.

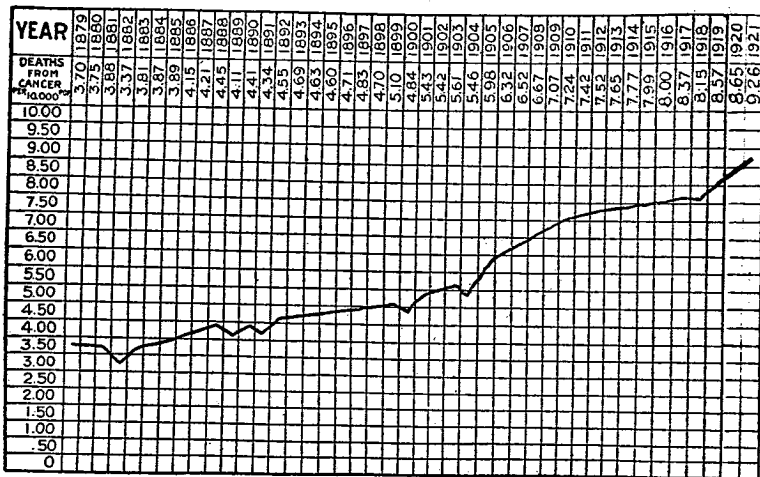
**Malarial Fever.**—Only 10 deaths occurred from this disease during 1921. The figures which follow and which cover a period of 43 years show the excellent results obtained from the campaign to eliminate the carrier of the malarial parasite.

1879, .....	268	1890, .....	195	1901, .....	50	1912, .....	29
1880, .....	293	1891, .....	180	1902, .....	36	1913, .....	11
1881, .....	431	1892, .....	198	1903, .....	40	1914, .....	10
1882, .....	379	1893, .....	148	1904, .....	47	1915, .....	17
1883, .....	290	1894, .....	162	1905, .....	21	1916, .....	10
1884, .....	230	1895, .....	144	1906, .....	33	1917, .....	5
1885, .....	209	1896, .....	119	1907, .....	29	1918, .....	13
1886, .....	243	1897, .....	132	1908, .....	30	1919, .....	2
1887, .....	217	1898, .....	82	1909, .....	25	1920, .....	5
1888, .....	264	1899, .....	96	1910, .....	25	1921, .....	10
1889, .....	203	1900, .....	84	1911, .....	25		

**Smallpox.**—No deaths from smallpox occurred in New Jersey during 1921, although mild cases of this disease were reported during the year.

**Cancer.**—The number of deaths from cancer and other malignant tumors during 1921 was 3,011, an increase of 251 over the previous year. It is greatly regretted that while the general death-rate is decreasing, the rate from malignant tumors shows a continued rapid increase, as will be observed by referring to the chart which follows:

CHART SHOWING DEATHS FROM CANCER PER 10,000 POPULATION FOR 43 YEARS.



DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS IN NEW JERSEY BY ORGAN AFFECTED, 1921.

CANCER AND OTHER MALIGNANT TUMORS.	AGE PERIODS.											Total.					
	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 69.	70 to 79.	80 to 89.	90 and over.
Buccal Cavity, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	96
Stomach, Liver, .....	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1120
Peritoneum, intestines, rectum, .....	2	1	2	4	11	25	42	96	121	171	352	241	52	2	1	1	452
Female genital organs, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	476
Breast, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	232
Skin, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	67
Other organs or organs not specified, .....	3	5	2	9	4	5	11	16	24	48	57	62	159	90	27	2	524
Total, .....	7	8	2	15	8	28	66	101	182	296	346	414	613	558	156	11	3011

*Suicide.*—The deaths by this means during 1921 total 418, an increase of 69 over the year 1920, while the year 1920 showed a decrease of 28 from the year 1919.

DEATHS BY SUICIDE IN NEW JERSEY, 1921.

MODE OF DEATH.	AGE PERIODS.											Total.		
	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 69.		70 to 79.	80 to 89.
Poison, .....	1	3	2	2	6	5	5	5	2	2	6	1	1	41
Asphyxia, .....	1	1	1	1	5	9	10	11	13	9	8	5	2	95
Strangulation, .....	1	1	3	3	11	8	9	10	12	8	13	3	2	86
Drowning, .....	1	1	3	3	2	2	1	3	4	4	2	1	1	28
Firearms, .....	2	4	9	10	15	18	17	13	14	11	11	3	1	122
Cutting Instruments, .....	1	1	1	1	6	8	8	3	3	3	3	3	1	27
Precipitation from height, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	12
Crushing, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	7
Others, .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total, .....	4	18	19	29	51	41	46	44	47	37	54	26	7	418

*Bright's Disease.*—The deaths occurring during 1921 which are attributed to this disease totalled 3,236, a decrease of 133 from the previous year.



## Report of Bureau of Administration.

CHARLES J. MERRELL, CHIEF.

In accordance with the provisions of Chapter 11 of the Laws of 1921 providing for the appointment of two women as members of the Department, Governor Edwards in May, 1922, appointed Miss Margaret McNaughton, of Jersey City, and Mrs. James E. VanHorne, of Trenton, as members; and in accordance with the provisions of Chapter 94 of the Laws of 1922, providing for the appointment of a dentist as a member of the Department, he appointed Dr. J. E. H. Guthrie, of Newark. The membership of the Department has therefore been increased to eleven members.

At the reorganization which took place on July 6, 1921, Henry Spence, M.D., of Jersey City, was elected president for the year, and Thomas B. Lee, M.D., of Camden, vice-president.

The Legislature during the session of 1922 appropriated \$305,490 for the work of the Department during the year beginning July 1, 1922. An appropriation of \$401,380.00 was granted for the work of the Department for the year beginning July 1, 1921. It will, therefore, be noted that considerably less money was appropriated for the fiscal year of 1922 than was for 1921. This is mainly due to the fact that a much smaller appropriation was granted for the work of the Bureau of Child Hygiene, and also considerably less for the work of the Bureau of Venereal Disease Control. Both of these bureaus, however, will receive federal moneys to aid in their work during the year beginning July 1, 1922, and it will therefore probably not be necessary to cut down the work of these bureaus to any great extent. Under the provisions of Joint Resolution No. 5, adopted at the 1922 session of

the Legislature, the State of New Jersey accepts the provisions of the so-called Sheppard-Towner Law, "An Act for the Promotion of Welfare and Hygiene of Maternity and Infancy," and designates the State Department of Health, through its Bureau of Child Hygiene, as the State agency with which the Federal Children's Bureau shall cooperate in the administration of the provisions of the said act, and the federal moneys apportioned to the State of New Jersey under this federal law will therefore be available for the work of the Bureau of Child Hygiene. The total appropriation above referred to includes the appropriation of \$4,000.00 for legal expenses and \$5,000.00 for sewage investigation work pursuant to Chapter 126 of the Laws of 1920, the same as was granted for the year ending June 30, 1922.

The application of the Crematorium Company of America, Inc., the principal office of the company being at 128 Market Street, Newark, for permission to erect and maintain a crematory for the incineration of dead human bodies on a plot of ground adjacent to the Fairview Cemetery on Fairview Avenue, Fairview, permission for which was pending before the Department on July 1, 1921, was later dropped by the company and no further action was taken on this request. Application was later made by the Mausoleum Company of America for the approval of plans for a public mausoleum to be erected on a plot of ground in the southeast corner of the Fairview Cemetery, Fairview. Consent for the construction and maintenance of such a mausoleum having been granted by the local authorities of the borough of Fairview, and no objections to the construction of the same having been filed with this Department within the time limit provided by law, the plans for the mausoleum, which were found upon examination to be in accordance with the requirements of Section 2 of Chapter 233 of the Laws of 1916, governing the construction of public mausoleums, were approved by the Department.

An application was received from the Physiatrix Institute of Morristown for permission to conduct animal experimentation at its place near Morristown. Investigation showed the place to be well equipped for the purpose and those in charge evidently fitted to carry on such work. A permit in the following form was therefore granted to the Institute:

*To all to whom these presents come, Greeting:*

The Physiatrix Institute of Morristown, having presented to this Department a petition for authority 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 to amend an act entitled: An act for the prevention of cruelty to animals, approved March 11th, one thousand eight hundred and eighty," wherein it is set forth that it is desired to establish and conduct laboratories for research work concerning disease and its treatment and scientific problems directly or indirectly connected therewith, and particularly to investigate the causes, nature and mode of prevention and cure of Diabetes, Nephritis, Metabolic disorders and other similar diseases and abnormal physical conditions, such research work and investigation to include animal experimentation:

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 Physiatrix Institute of Morristown to carry on scientific experiments and investigations as above indicated upon the premises formerly known as the "Otto Kahn Estate" at Convent, in the County of Morris, and State of New Jersey.

Dated, Trenton, New Jersey, this seventh day of March, 1922.

THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY.

By:

HENRY SPENCE, *President.*  
JACOB C. PRICE, *Director.*

Amended plans for changes in existing buildings at the Essex County Hospital for Tubercular Diseases, at Verona, New Jersey, were approved by the Department; and on May 10, 1922, a public hearing was given by the Department at Metuchen, New Jersey, relative to the application of the Board of Freeholders of Middlesex County for permission to erect and maintain a County Tuberculosis Sanatorium on a farm near Metuchen. This hearing was largely attended, and those interested for or against the locating of the hospital at the site selected were given full opportunity to present their views. The proposed site was likewise inspected by the members of the Department and at a meeting of the Department held on June 20, 1922, the following preamble and resolution were adopted:

WHEREAS, The Board of Freeholders of Middlesex County has made application to the Department in accordance with the provisions of Chapter 66 of the Laws of 1910, for permission to establish a county tuberculosis hospital near Metuchen, Middlesex County,

WHEREAS, A public hearing has been given by the Department in accordance with the provisions of said act, at which those favoring and opposing the granting of the application were given full opportunity to present their views, and,

WHEREAS, In the opinion of the members of the Department the site selected is not a suitable one for the location of a tuberculosis hospital; therefore, be it

*Resolved*, That the application of the Board of Freeholders of Middlesex County for permission to establish a tuberculosis hospital near Metuchen in Middlesex County be and the same is hereby denied.

Dr. A. Clark Hunt and William H. MacDonald, of the Department, together with B. H. Obert, Health Officer of Asbury Park, were reappointed by the Department on March 7, 1922, as members of the Board of Examiners of Health Officers and Sanitary Inspectors for the coming year. D. C. Bowen, of the Department, and James J. Hagen, Health Officer of Jersey City, were appointed as additional members of the Board.

The Board on reorganizing chose Dr. Hunt as Chairman and Mr. MacDonald as Secretary of the Board. A resolution was adopted to the effect that examinations be held during the year on the last Friday of April, July, October and January.

During the year ending June 30, 1922, the Board conducted four examinations, at which eighty applicants appeared, and licenses were issued to forty-two, who succeeded in passing the examination. This number includes those examined and licensed as sewage and water plant operators. A complete list of all those to whom licenses have been issued since the passage of Chapter 215 of the Laws of 1903 up to June 30, 1922, will be found printed in the back of this report, this list showing the various positions for which licenses have been issued.

The following bills of interest to the Department were introduced at the 1922 Session of the Legislature:

Senate Bill No. 14, defining ice cream, requiring a butterfat standard, fixing penalties and requiring a permit for sale from the department. This bill became a law, Chapter 5 of the Laws of 1922.

Senate Bill No. 49, providing penalties for violation of Marriage License Law; Senate Bill No. 74, giving the Department control of water bottled for drinking purposes; Senate Bill No. 75, requiring notification to the Department by water companies

of change in operation of water plant; Senate Bill No. 102, requiring the Department to investigate cases of tuberculosis for education of the afflicted; Senate Bill No. 103, providing for the enforcement of the State Sanitary Code, and Senate Bill No. 141, prohibiting bathing in potable waters, together with

Assembly Bill No. 144, requiring marriage license applicants to have certificates showing freedom from social diseases in communicable stage; Assembly Bill No. 224, making pollution of potable streams a misdemeanor; Assembly Bill No. 225, allowing indictment of persons polluting potable waters; Assembly Bill No. 346, requiring submission to examination of those suffering from infectious venereal disease in a communicable stage, and Assembly Bill No. 347, governing the reporting of venereal diseases were introduced, but failed to become laws.

Assembly Bill No. 4, defining standard for condensed milk in conformity with that of the U. S. Department of Agriculture, became a law, Chapter 110 of the Laws of 1922, and the Department is charged with the enforcement of this act.

On March 7, 1922, Messrs. Croft, Merrell and FitzRandolph, of the Department staff, were appointed a committee to compile data and present recommendations to the salary committee of the Department, consisting of Clyde Potts, C.E., and Thomas B. Lee, M.D., for consideration relative to the adoption of a salary schedule for employees of the Department.

Following the report of this staff committee to the salary committee the following schedule of salaries was submitted by the salary committee and adopted by the Department:

In accordance with the instructions given by the Department of Health of the State of New Jersey at its meeting on March 7, 1922, we beg leave to submit the following report concerning schedule of salaries for employees of the Department:

An effort has been made to follow so far as possible the schedules of the Civil Service Commission now in force and in the

## DEPARTMENT OF HEALTH.

adoption of this schedule all employees of the Department will be given full credit for prior service. Credit will also be given for special training and experience in the case of new appointees.

Increases according to this schedule will be made from year to year on the recommendation of the chief of the bureau in which the employee works if said recommendation is endorsed by the Director.

In addition to the following schedules an effort will be made to amend the law in order to provide a higher salary for the Director of Health. Consultants and other part-time employees of the Department will be paid on a per diem basis for services actually rendered.

Office Boy, ..... \$40.00—\$50.00  
\$40.00 first year.

\$50.00 second year with promotion to Junior Clerk at the end of second year if service merits.

Junior Clerk, ..... \$55.00—\$75.00  
\$55.00 first year.

\$65.00 second year.

\$75.00 third year and thereafter for employee promoted from office boy.

Junior Clerk, Junior Clerk-Stenographer and Junior Clerk-Typist schedule as shown above for Junior Clerk, with promotion to Clerk, Clerk-Stenographer and Clerk-Typist at the end of third year if service merits with following schedule:

Clerk, Clerk-Stenographer, Clerk-Typist, ..... \$80.00—\$110.00  
\$80.00 first year.

\$90.00 second year.

\$100.00 third year.

\$110.00 fourth year with promotion to Senior Clerk, Senior Clerk-Stenographer, etc., at the end of fourth year if service merits.

Senior Clerk, Senior Clerk-Stenographer, Clerk, Division of Child

Hygiene, Librarian, ..... \$115.00—\$140.00  
\$115.00 first year.

\$125 second year.

\$135.000 third year.

\$140.00 fourth year and thereafter except in case of promotion to Principal Clerk. Promotion may be made from this grade by examination to Principal Clerk, Principal Statistical Clerk, when a vacancy occurs. Promotion to be made if possible from employees of Department.

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Principal Clerk, Principal Statistical Clerk, ..... \$145.00—\$220.00

\$145.00 first year.

\$160.00 second year.

\$175.00 third year.

\$190.00 fourth year.

\$205.00 fifth year.

\$220.00 sixth year and thereafter.

Junior File Clerk, ..... \$60.00—\$85.00

\$60.00 first year.

\$70.00 second year.

\$80.00 third year with promotion to File Clerk at the end of third year if service merits.

File Clerk, ..... \$90.00—\$120.00

\$90.00 first year.

\$100.00 second year.

\$110.00 third year.

\$120.00 four year and thereafter.

Junior Librarian, ..... \$80.00—\$110.00

\$80.00 first year.

\$90.00 second year.

\$100.00 third year.

\$110.00 fourth year with promotion to grade and schedule of Librarian as above stated if service merits.

Laboratory Assistant, ..... \$75.00—\$105.00

\$75.00 first year.

\$85.00 second year.

\$95.00 third year.

\$105.00 fourth year and thereafter.

Cold Storage Inspector, Dairy Inspector, Food and Drug Inspector, ..... \$100.00—\$160.00

\$100.00 first year.

\$110.00 second year.

\$120.00 third year.

\$130.00 fourth year.

\$140.00 fifth year.

\$150.00 sixth year.

\$160.00 seventh year and thereafter except in case of promotion to Senior Inspector. Promotion may be made from this grade, by examination, when a vacancy occurs.

Senior Inspector, Animal Inspector (Food & Drugs), Special Investigator (Food & Drugs), Medical Assistant, Bureau of Venereal Disease Control Supervisor, Education and Publicity Bureau of Venereal Disease Control, ..... \$170.00—\$225.00

\$170.00 first year.

\$185.00 second year.

\$200.00 third year.

## DEPARTMENT OF HEALTH.

\$215.00 fourth year.	
\$225.00 fifth year and thereafter.	
Public Health Nurse, Field Agent, Bureau of Venereal Disease Control, .....	\$100.00—\$150.00
\$100.00 first year.	
\$110.00 second year.	
\$120.00 third year.	
\$130.00 fourth year.	
\$140.00 fifth year.	
\$150.00 sixth year and thereafter.	
Motor Boat Captain, .....	\$115.00—\$140.00
\$115.00 first year.	
\$125.00 second year.	
\$135.00 third year.	
\$140.00 fourth year and thereafter, with partial maintenance.	
Teacher Child Hygiene, .....	\$100.00—\$120.00
\$100.00 first year.	
\$110.00 second year.	
\$120.00 third year and thereafter, with promotion to Assistant Supervisor or District Supervisor when vacancies occur.	
Assistant Supervisors, District Supervisors, Child Hygiene, ..	\$125.00—\$150.00
\$125.00 first year.	
\$130.00 second year.	
\$140.00 third year.	
\$150.00 fourth year and thereafter, with promotion to Supervisor when vacancy occurs.	
Supervisors, Child Hygiene, .....	\$160.00—\$200.00
\$160.00 first year.	
\$175.00 second year.	
\$190.00 third year.	
\$200.00 fourth year and thereafter.	
Junior Laboratory Technician, .....	\$90.00—\$120.00
\$90.00 first year.	
\$100.00 second year.	
\$110.00 third year.	
\$120.00 fourth year and thereafter.	
Junior Chemist, Junior Bacteriologist, Junior Biologist, Junior Sanitary Engineer, .....	\$125.00—\$155.00
\$125.00 first year.	
\$135.00 second year.	
\$145.00 third year.	
\$155.00 fourth year, with promotion to Bacteriologist, Chemist, Biologist, Sanitary Engineer if service merits.	

## BUREAU OF ADMINISTRATION.

Bacteriologist, Biologist, Chemist, Epidemiologist, Sanitary Engineer, .....	\$230.00—\$235.00
\$160.00 first year.	
\$175.00 second year.	
\$190.00 third year.	
\$205.00 fourth year.	
\$220.00 fifth year.	
\$235.00 sixth year and thereafter except in case of promotion to Senior Bacteriologist, Senior Chemist, Senior Sanitary Engineer, and Senior Epidemiologist in case a vacancy occurs. Promotion may be made, by examination, from this grade to the senior positions above named when a vacancy occurs. Promotion to be made if possible from employees of the Department.	
Senior Bacteriologist, Senior Chemist, Senior Sanitary Engineer, Senior Epidemiologist, .....	\$235.00—\$275.00
\$235.00 first year.	
\$250.00 second year.	
\$265.00 third year.	
\$275.00 fourth year and thereafter.	
District Health Officers, .....	\$235.00—\$295.00
\$235.00 first year.	
\$250.00 second year.	
\$265.00 third year.	
\$280.00 fourth year.	
\$295.00 fifth year and thereafter.	
Chiefs of Bureaus, Chief of Laboratory of Hygiene, Registrar, Bureau of Vital Statistics, .....	\$250.00—\$375.00
\$250.00 first year.	
\$275.00 second year.	
\$300.00 third year.	
\$325.00 fourth year.	
\$350.00 fifth year.	
\$375.00 sixth year and thereafter. The Department may grant \$1,000.00 additional to the Chief designated as Assistant Director of Health.	

Respectfully submitted,  
 CLYDE POTTS,  
 THOMAS B. LEE,  
*Salary Committee.*

## Report of the Bureau of Local Health Administration.

D. C. BOWEN, CHIEF.

The personnel of the Bureau of Local Health Administration includes thirteen persons: the chief of the Bureau; two district health officers; two epidemiologists; one district public health nurse, and eight clerks and clerk-stenographers.

The work of the Bureau includes the study of epidemics and the prevalence of communicable diseases, using such means for the restriction of their spread as may be authorized under the laws of the State and as are warranted by generally accepted sanitary and epidemiological procedure; cooperating with local health officials to assist them in solving problems that arise in the enforcement of the health laws and regulations of the State Sanitary Code; the study of sanitary conditions throughout the State with the object of advising the Department as to how conditions may be improved; receiving, filing and tabulating the data contained in reports of communicable diseases that are received from the five hundred and thirteen local boards of health in the State; compiling standard morbidity and mortality tables and the compilation of special data from reported cases and deaths from reportable diseases; checking all certificates of deaths, in which the cause of death is attributed to a reportable communicable disease against reported cases of these diseases, and likewise checking the results of the examination of all specimens sent to the State Laboratory of Hygiene for diagnostic purposes from suspected cases of communicable diseases; attending meetings of local boards of health and other official and non-official bodies upon request and when necessary in carrying on the routine work of the Bureau; delivering addresses and taking part in discussions on public health questions at public gather-

ings, and conducting the voluminous correspondence incident to the Department's work that is carried on through this Bureau.

*District Health Officers.*—The appropriation bill, as finally passed by the last Legislature, made provision for the employment of but one of the five additional District Health Officers asked for, and that were needed in order that a district health officer might be assigned to each of the remaining health districts into which the State has been tentatively divided. The Monmouth County Organization for Social Service, which was instrumental in securing this appropriation, urged that the next Health District established by the Department should be in Monmouth County, and that the boundary lines of this district should be made coextensive with those of the county. By thus restricting the size of District No. 2, the County Organization was also able to secure an appropriation of \$1,500 from the County Freeholders, to be applied toward operating expenses of this District Health Unit, and to have the District Health Officer provided with office room in the County Court House.

The duties of District Health Officers are such that make it highly desirable that persons appointed to these positions shall have had preliminary training in the State Department of Health along the line of work they are required to perform, and who are thoroughly familiar with the practical as well as the theoretical side of local health administrative work as carried on under the laws of this State. Therefore, Mr. William H. MacDonald, then acting as Assistant Epidemiologist in this Bureau, was detailed to serve temporarily as District Health Officer in the Monmouth County District.

Owing to unavoidable delays, active work was not begun in Monmouth County until January 3, 1922, six months after the appropriation for the work became available. As soon as the Health Officer was established in his new quarters, a survey of the organization and activities of all local boards of health in the district was begun. While this survey had been completed in only about one-half of the forty-five municipalities in the county when this report was written, the data that had been compiled thus far showed that the shortcomings in local health

administrative work in Monmouth County were largely due to the same causes that adversely effect the work in other parts of the State in which the population is largely rural or is split up into small local municipal governments in which it is necessary, for financial reasons, to operate the health department on a part-time basis by untrained, inexperienced employees.

The survey in Monmouth County, insofar as it has been completed, shows a wide range in the amount and character of the work performed by different boards of health in municipalities that are fairly comparable as to population and other factors having a direct bearing on community health problems, and it likewise shows a wide range in the amount of moneys appropriated and expended for public health purposes in such municipalities. During the calendar year 1921 the amount spent by the various local health departments in the county ranged from less than one cent to \$1.13 per capita. The average per capita expenditure for public health purposes in the forty-five municipalities in the county for the same year was 26 cents. While these figures cannot be taken as an accurate measure of the efficiency of the work actually performed in any given municipality, it is obvious that appropriations throughout the county as a whole are inadequate to carry on the most rudimentary kind of public health work. In a large majority of the municipalities surveyed it was found that no adequate organization existed to systematically enforce public health laws and the regulations of the State Sanitary Code or to carry out a definite policy. Although there appeared to be a disposition on the part of a majority of local boards of health interviewed to enforce certain regulations of the State Sanitary Code, when their duty in this respect was pointed out, it can hardly be expected that this will be efficiently done in those municipalities that lack the organization, appropriation and equipment. The District Health Officer's reports show that, during the last six months of the fiscal year just closed, there occurred in Monmouth County an unusually large number of cases of scarlet fever, and that information obtained from twenty-eight local boards of health indicated that the provision of the State Sanitary Code, fixing the minimum period of isolation in cases of this disease, had been enforced by only

thirteen (46 per cent.) of these boards. In fifteen municipalities it was found that local health officials were failing to enforce a regulation of the Code which provides for posting placards on houses in which cases of certain communicable diseases exist. The District Health Officer also reports a laxity on the part of some physicians to comply with the law and regulations of the State Sanitary Code in respect to reporting cases of communicable diseases to local boards of health, and failure on the part of certain local reporting officers to make prompt and proper reports to the State Department of Health.

Notwithstanding the newness of the work in Monmouth County, the greater part of the District Health Officer's time has thus far been taken up in rendering assistance to local health officials in handling problems that have arisen in connection with the enforcement of the provisions of the law and regulations of the State Sanitary Code, which is one of his main functions. During the six months that have elapsed since this district was established, the District Health Officer has held 195 conferences with representatives of local boards of health in various parts of the county. Many local health problems were dealt with in these conferences, among them being the enforcement of specific measures for the prevention of the spread of chickenpox, diphtheria, rabies, syphilis, measles, typhoid fever and scarlet fever; the appointment of inspectors, secretaries, sub-registrars, and duties connected with these positions; legal action for the abatement of nuisances constituting potential sources of danger to the public health; the drafting of local ordinances; bacteriological examination of milk and the licensing of milk pasteurization plants; the contamination of public water supplies; insanitary conditions in a semi-public institution, etc. Assistance has been given to a number of local boards of health in the preparation of suitable blank forms for use in reporting cases of communicable diseases, and in the preparation of other forms designed to standardize and facilitate the keeping of office records. More than 2,000 short circulars on measles were furnished to local boards of health to be distributed through the public schools in districts in which measles was then unusually prevalent.

For the lack of time, the District Health Officer has been unable to render local health officers in District No. 2 much assistance in conducting epidemiological investigations in outbreaks of communicable diseases occurring in his district. This is a highly important branch of local health administrative work, since it is the only means by which the sources of infection giving rise to outbreaks and epidemics of infectious diseases can be accurately determined and removed. That very little has been accomplished along this line in Monmouth County is mainly due to the fact that but few local boards of health in the district are equipped to do it. Only two of the forty-five municipalities in the county have a resident population of over 10,000, while there are 41 with less than 5,000. The result is that, in the smaller municipalities, the application of scientific measures for the prevention and control of communicable diseases is left to part-time, underpaid sanitary inspectors, some of whom lack the training and experience that is necessary to conduct epidemiological investigations along generally accepted scientific lines.

The territory lying between the Borough of Sea Bright on the north and the Borough of Brielle on the south, extending about eighteen miles along the ocean front, is split up into twenty separate municipalities, in which there is an aggregate permanent population of something over 39,500, according to the last federal census. During the summer months, the population in this territory increases to approximately 250,000 or 300,000, according to conservative estimates, not taking into account the thousands of day excursionists that frequent these places by train and automobile. It is needless to point out that many of the intricate public health problems that are met with in large cities exist in these resort towns at one time or another during the summer and early fall months, and that they are relatively more difficult to handle on account of the transitory character of the population. The District Health Officer, by reason of his training and wide experience, will be able to render valuable assistance to local health authorities in the smaller resorts in Monmouth County that now lack the equipment and trained personnel to apply modern methods for restricting the spread of infectious diseases that are introduced from without their borders during the most crowded



periods of the season. Furthermore, in rendering this assistance, the District Health Officer will naturally come into possession of facts that, when properly used, will not infrequently prevent the needless spread of infectious diseases from one municipality to another.

*Work in Health District No. 1.*—This district takes in Salem, Gloucester and Camden Counties, excluding the City of Camden, and was established October 1, 1919. The Health Officer in this district had to deal with a rather widely distributed outbreak of smallpox during the year, and it was largely through his efforts that the outbreak was prevented from gaining larger proportions. The first cases were discovered in Haddonfield, and were traced to a woman who came there from Kings County, Virginia, where she had been exposed to the disease. Failure on the part of the physicians who saw the early cases in the outbreak to recognize the true nature of the illness, resulted in the infection becoming widespread before preventative measures were instituted. Before the outbreak terminated, a positive diagnosis of smallpox was made in 28 active cases and eight persons were examined who had recovered from a previous illness that is believed to have been smallpox. These cases were all traceable to direct or indirect exposure to the original case that occurred in Haddonfield, from which the disease spread to six other municipalities.

Outbreaks of typhoid fever were investigated by the District Health Officer in twelve municipalities in District No. 1. The largest of these outbreaks occurred in the Borough of Collingswood, nine cases; the Township of Delaware, eleven cases, and in Gloucester City, thirteen cases. The Gloucester City outbreak was attributed to accidental infection of the public water supply. In the Collingswood outbreak the vector of infection was not definitely established. Ten cases in the Delaware Township outbreak were ascribed to contact infection from an original case for which no source of infection was established.

Through the efforts of the District Health Officer, the Schick Test, and active immunization against diphtheria was offered through the public schools in the Boroughs of Collingswood and Haddonfield. In the Collingswood schools 397 persons were

given immunizing treatments. In Haddonfield 100 were given the Schick Test and 81 were given injections of toxin-antitoxin. As part of the year's program, the District Health Officer had planned to cooperate more extensively with local health and educational officials in this valuable work, but the press of other matters prevented. As a part of the plan for the coming year, a systematic program is to be carried out which, it is hoped, will result in having many children under school age immunized against diphtheria by the family physician. A plan for cooperating with local health officials and boards of education in carrying on this work systematically through the public schools has already been arranged for, which, it is confidently believed, will result in affording the opportunity for every school child in the district to be given the Schick Test and for those who are shown by this test to be susceptible to diphtheria, to receive injections of toxin-antitoxin.

In District No. 1, the Health Officer was called upon on eighty occasions during the past year to assist local health officials and private practitioners in making diagnoses in suspected cases of communicable diseases. He also took the initiative in instituting measures to prevent the transmission of infection through milk or other dairy products on thirteen dairies on which cases of communicable diseases occurred.

One of the most difficult problems with which our District Health Officers have to deal is to induce local health officials in townships and in the smaller municipalities to take the initiative in the enforcement of public health laws and regulations. In fact, it is the most difficult of all problems with which this Bureau has to deal. Except in the cases of grave emergencies, such as epidemics of unusual magnitude or where such epidemics are threatened, the average township Board of Health is inactive. This is no less true of the local Board of Health in a very substantial number of incorporated municipalities where the population is too small to warrant the employment of full-time health officials. Little improvement can be expected along this line until some workable system has been evolved that will provide trained officials to administer sanitary regulations in rural districts as well as in the more populous centers of the State.

*District Public Health Nurse.*—The work inaugurated two years ago in the Townships of Chesterfield, New Hanover, Pemberton and Springfield, and in the Boroughs of Pemberton and Wrightstown, Burlington County, has been continued during the past year. The program that has been carried out in this section of Burlington County was undertaken at the request of a substantial number of citizens who desired better public health administration than local health officials were prepared to give or were disposed to provide. Failure on the part of these officials to employ a public health nurse, or to make adequate provisions for the enforcement of sanitary regulations having for their purpose the prevention of the spread of communicable diseases and the abatement of nuisances constituting potential health hazards, led several local civic organizations, with the financial support offered by a few private citizens, to take it upon themselves to provide a fund for the purchase and maintenance of an automobile for the exclusive use of a nurse, providing her salary would be paid and her work carried on under the direct supervision of the State Department of Health through the Bureau of Local Health Administration. Under this arrangement, the nurse was to cooperate with the medical inspectors for the twelve public schools located in the six municipalities above named, in which there are over thirteen hundred pupils enrolled. Taking care of the work growing out of the medical inspection of schools, in addition to acting as a deputy district health officer in these municipalities was a rather ambitious program and one that could not have been successfully carried out by a person less capable and experienced than the one that was assigned to the task. Aside from handling the multiplicity of cases growing out of the performance of official duties in the district to which her work was restricted, the District Health Nurse rendered valuable assistance in the severe epidemic of typhoid fever that originated in Jacobstown last summer, and which spread out over the surrounding country. In this epidemic alone, the nurse made one hundred and thirty-six primary and three hundred and twenty-two secondary visits in families in which cases of typhoid fever occurred, instructing inexperienced members of the household, on whom devolved the

care of those who were ill, how to administer to the needs of their patients and giving specific directions concerning concurrent disinfection and other precautionary measures necessary to be followed in order to avoid transmission of the disease to others. In the Jacobstown epidemic and other localized outbreaks of typhoid fever that occurred in that section of Burlington County during the year, the nurse collected and forwarded to the State Laboratory of Hygiene five hundred and sixty-eight specimens of stool and urine to be examined for typhoid bacilli. In addition, she took sixty-eight specimens for diagnostic purposes from cases and suspected cases of diphtheria that came under her supervision. Three hundred and three school visits were made, during which twenty-five pupils were recommended for exclusion on account of showing evidence of infectious diseases or for other conditions which made their presence in the class room dangerous or undesirable. One hundred and fifty-two talks on sanitation and hygiene were given by the nurse to teachers and groups of school children. Included among the subjects dealt with were talks on posture, care of the teeth, hands and scalp; the manner in which communicable diseases are most commonly spread and what the individual can do to avoid infection; ventilation, diet; the part played by flies and other insects in the spread of disease, etc. Many other problems relating to sanitation and hygiene were presented to the children in simple language that they could readily understand and profit by.

The nurse also spoke on various occasions before parent-teachers' associations, the Farmers' Granges and other public gatherings, choosing as her subject some appropriate community health problem in which her audience was especially concerned. One hundred and eighteen conferences were held with local health officials, physicians, private citizens, school officials, prosecuting officials, State police, justices of the peace, Judge of the Common Pleas Court and various other public officials. These conferences dealt with a wide range of public health problems and other subjects closely related thereto, including the control of communicable diseases, nuisances, school lunches, delinquency, immorality, institutional care for feeble-minded, birth records, abuse of children, medical aid in emergency cases, and many

other allied subjects too numerous to mention. This brief summary of the activities of the District Public Health Nurse in Burlington County is given merely to show the extent and diversity of her work. That the spread of communicable diseases has been restricted through her efforts in the communities in which she has labored there can be no doubt. That she has been instrumental in securing the correction of many insanitary conditions of long standing in the district is a matter of record. In the follow-up visits to the homes of pupils to secure the correction of physical defects discovered in the medical school inspection work, an excellent opportunity was afforded to carry educational work along public health lines into the home where it is most needed and where it is of the greatest value. The health talks that have been given in the schools, the formation of Health Leagues, and other means that were devised to teach the children personal hygiene and home sanitation, should have a far-reaching effect in inculcating in their minds habits that will be of inestimable value to them in after years.

*Communicable Diseases on Dairy Premises.*—Communicable diseases in which the infective agent is known to be transmitted through milk were reported to the State Department of Health on 143 dairies during the past year. These dairies were located in 72 municipalities, distributed among 17 counties, as follows: One dairy in Atlantic County; 40 in Burlington County; 8 in Cumberland County; 5 in Essex County; 3 in Gloucester County; 13 in Hunterdon County; 13 in Mercer County; 4 in Middlesex County; 10 in Monmouth County; 8 in Morris County; 5 in Ocean County; 3 in Passaic County; 9 in Salem County; 9 in Somerset County; 7 in Sussex County; 1 in Union and 4 in Warren Counties.

The diseases reported were: Typhoid fever, 72 cases; diphtheria, 40 cases; scarlet fever, 104 cases; tuberculosis, 4 cases, and dysentery, 1 case. Representatives of the Bureau of Local Health Administration established and supervised the enforcement of measures to prevent the transmission of infection through milk or other dairy products produced or stored on 84 of 143 dairies in question. On the remaining 59 dairies the

local health officials in the municipalities in which they were located were called upon to carry out the regulations of the State Sanitary Code relating to infectious diseases on dairy premises.

The action taken by representatives of this Bureau, and that reported to have been taken by local health officials to prevent the transmission of infectious diseases through dairy products produced on premises upon which cases of these diseases were reported is shown in the following summary:

	<i>By State.</i>	<i>By Local Bd.</i>	<i>Total.</i>
Dairies on which the sale of milk was prohibited, . . . . .	10	17	27
Patient isolated or removed to hospital, . . . . .	39	28	67
Dairy work performed by persons residing off of the premises, . . . . .	21	11	32
Cows removed to other premises, . . . . .	11	0	11
Other means employed to prevent the spread of infection, . . . . .	3	3	6
	84	59	143

The total average daily production of milk on the 143 dairies referred to was approximately 15,800 quarts. The total daily production on the 10 dairies on which representatives of this Bureau deemed it necessary to prohibit the sale of milk during the prevalence of infection on the premises was approximately 850 quarts. Compared to the total dairies involved, the number on which the sale of milk was prohibited by representatives of this Bureau was relatively small, since it was found possible to put into operation precautionary measures under which, it was believed, the dairy products could be distributed without endangering the health of those who consumed them. The efficiency of these measures was demonstrated in the fact that not a single case of infection was traceable to the use of these products. However, two epidemics of typhoid fever which were investigated, in which there were 88 cases, were traced to milk that became infected before the cases that caused the outbreaks were reported to the State Department of Health.

In connection with the supervision of communicable diseases on dairy premises during the year, 4 temporary and 4 chronic typhoid fever carriers were identified. The 4 temporary carriers

were kept under observation until negative stool and urine specimens indicated that this condition had cleared up, and the 4 chronic carriers are still under such supervision as the State Department of Health is able to maintain over known typhoid carriers, of which we now have twenty-three on record.

*Epidemics and Outbreaks of Communicable Diseases Investigated.*—During the year representatives of this Bureau have cooperated with local health officials, or taken entire charge of, 56 outbreaks and epidemics of communicable diseases. These include 24 outbreaks of typhoid fever, 20 of scarlet fever, 7 of smallpox, 4 of diphtheria and 1 of measles. In addition to these outbreaks, 34 cases of trichinosis were traced to the ingestion of meat from one infected hog, the remainder of the meat from this hog being destroyed, thereby preventing many other cases that doubtless would have resulted had not this timely investigation been made. Every person who partook of the meat from this carcass developed more or less severe clinical symptoms of trichinosis, and one of them died. One death from tetanus following vaccination and one case of typhus fever were also made the subject of special investigations.

*Typhoid Fever.*—The morbidity and mortality rate from typhoid fever was markedly higher during the fiscal year ending June 30, 1922, than for the three years immediately preceding. This was largely due to several epidemics of unusual magnitude that were traced to infected milk and other foods. The most notable of these were: First, the Jacobstown epidemic, in which 201 cases and 25 deaths occurred among persons who partook of infected chicken salad served at a Harvest Home Supper; second, an epidemic that occurred in a restricted area in the City of Trenton and Ewing Township, resulting in 59 cases and 1 death, definitely traced to raw milk distributed by a dealer who procured a portion of his supply from a dairy on which an unrecognized ambulatory case of typhoid fever was found; and, third, an epidemic in which there were 70 cases and 2 deaths, mostly among the occupants of a summer camp in Washington Township, Morris County, and in which the vector of infection was milk produced on the premises and handled by an employee who was found to be a chronic typhoid carrier.

*Sanitary Surveys and Special Investigations.*—Eighty-four sanitary surveys and special investigations were conducted in 17 counties during the year. Our records show that local health officials, especially those in townships and in the smaller municipalities, and likewise private citizens appeal to the State Department of Health for assistance in solving local health problems with increasing frequency from year to year. With the present small force of field investigators in the Bureau of Local Health Administration, it is quite impossible to detail an officer to make a personal investigation of all citizens' complaints that are received, or to send a representative to confer with local health officials on every occasion that one is asked for. Insofar as possible, citizens' complaints are referred to the local Board of Health in the municipality in which the condition complained of is alleged to exist. It is only after failure to get matters satisfactorily adjusted by correspondence or in cases where delay in securing prompt action is likely to be attended with grave consequence, that a field investigator is sent from the main office to investigate a citizen's complaint, except when they relate to conditions existing in a district to which a district health officer has been assigned. Likewise due to the small force in this Bureau, it is also necessary to deal with local health officials by correspondence on many occasions where a personal visit by a representative of the Bureau would be more satisfactory and of greater service.

*Meetings With Local Boards of Health and Other Official and Non-official Bodies.*—During the past year, representatives of this Bureau have attended, by request or otherwise, 27 regular and special meetings of local boards of health, and 50 other official or non-official public gatherings at which some public health matter was discussed or acted upon. Representatives of the Bureau have also held 598 conferences with executive local health officers and 335 conferences with other public officials and private citizens to discuss some particular phase of local health administrative work. Papers have been read, or talks given on public health subjects at 167 public or semi-public gatherings.

*Summer Camps.*—The rapid increase in the number of summer vacation camps that have been established in this State during the past few years has brought about an important problem

that calls for serious consideration, and one with which this Bureau is not at present equipped to deal. Camps for children from populous centers in this and adjoining States, Boy Scout Camps, Camp Fire Girls' Camps, groups of family camps, and the hundreds of isolated camps that are established during the summer along the rivers, lakes, streams and in the forests in various parts of the State, are mainly without adequate sanitary supervision by State or local health organizations. While the regulations of the State Sanitary Code require that any persons who establish or maintain any labor or construction camp, or any other camp to be occupied by five or more persons for a period of three or more days, shall forthwith notify the local board of health having jurisdiction in the municipality or township in which the camp is located, this regulation is seldom complied with, mainly because the average camper has no knowledge that such notice is required.

During the early part of the present camping season, an effort was made to learn the approximate number and location of campers in New Jersey by addressing a questionnaire to each local board of health in the State. These questionnaires were accompanied by a circular letter pointing out the importance of sanitary supervision over camps, and also by a copy of the regulations of the State Sanitary Code governing the conduct of camps. This questionnaire failed to bring the desired information, mainly because of the fact that a very large majority of the camps in this State are located in rather sparsely settled townships in which the enforcement of sanitary regulations is conspicuous for its absence, rather than for its thoroughness. The local boards of health in a considerable number of the more important camping districts in the State made no replies to this questionnaire, and very few of the Boards that did reply were able to supply the information desired, since they had no knowledge of the number of camps located in their district, nor were they informed in respect to what measures, if any, were being taken by campers to prevent the pollution of lakes, streams and other sources of public water supplies. Furthermore, very few township boards of health are prepared to undertake such sanitary supervision over

the camps located in their districts as is necessary to prevent the spread of communicable diseases among the campers themselves.

In past years, this Bureau has been called upon on numerous occasions to investigate extensive epidemics of typhoid fever, diphtheria, and other infectious diseases in camps of various types, and the number of cases of communicable diseases contracted in camps, and concerning which the State Department of Health has been notified after the patient returns home, has been growing more numerous from year to year. If all of the field workers connected with this Bureau were to devote their entire time to camp inspection during the summer months, they would not be able to inspect all the camps of which we now have knowledge. As a matter of fact, we are now unable to comply with all the requests that have been received from organizations that are conducting camps in this State to make inspections and advise camp directors on sanitary matters connected with these camps, and for the reasons above stated, it is practically useless to refer these requests to the local health officials in which these camps are located.

*Reportable Communicable Diseases.—Typhoid Fever.*—The efficacy of anti-typhoid vaccination was so conclusively demonstrated among the American troops in the late war, that many persons were hopeful that this means of preventing typhoid fever would be more generally resorted to among the civilian population after demobilization of the army, and thereby further reduce the morbidity and mortality rates from this disease. Insofar as New Jersey is concerned, this appears to have been an optimistic view that has not been realized, since the morbidity and mortality rates from typhoid fever have shown a marked increase in each of the past three years. During the calendar year 1921, 1,210 cases of typhoid fever were reported, and 145 deaths recorded from this disease, equal to 37.2 cases and 4.4 deaths per 100,000 population. These rates are substantially higher than any recorded since 1917. The indicated fatality rate in 1921, based on reported cases and deaths (11.98) is considerably lower than recorded in any preceding year for which records are available. This was probably due to more complete reporting rather than to an actual diminution of the fatality rate.

*Diphtheria.*—The morbidity and mortality rate from diphtheria was higher in 1921 than in any one of the preceding five

years, the case incidence being 242.9, and the mortality rate 18.3 per 100,000 population. The indicated fatality rate, based on reported cases and deaths, was 7.54. While the average yearly morbidity and mortality rates from diphtheria was somewhat less in New Jersey for the five-year period 1911 to 1915, inclusive, than it was for the preceding five years, from a study of the following table it is apparent that the efforts that have been made by State and by local health officials to restrict the spread of this disease by means of isolation, quarantine and disinfection, and by the general use of antitoxin as a prophylactic and therapeutic remedy, have failed to accomplish the purpose sought. More effectual means than these must be employed for the control of diphtheria before any substantial reduction can be made in these figures. It now looks as if the solution of the problem lies in the more general use of toxin-antitoxin for the immunization of those who are susceptible to the infection of diphtheria, and since it is now possible by readily applied, safe and reliable tests to identify those who are susceptible, the morbidity and mortality from diphtheria should, in the course of a few years, show a marked decline.

TABLE I.

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY FROM 1909 TO 1921, INCLUSIVE; REPORTED CASES AND DEATHS PER 100,000 POPULATION AND THE INDICATED FATALITY RATE.

Year.	Cases.	Deaths.	Cases per		Per Cent.
			100,000	Deaths per 100,000	
			Pop.	Pop.	Fatality.
1909, .....	3,703*	610*	157	25.9	16.47
1910, .....	5,072*	728*	199	28.6	14.35
1911, .....	5,884*	568*	225	21.7	9.65
1912, .....	4,829*	458*	179	17.0	9.48
1913, .....	6,374*	553*	230	19.9	8.67
1914, .....	6,863*	561*	241	19.7	8.17
1915, .....	7,410*	550*	260	19.3	7.42
Five-year average, .	6,272	538	228	19.5	8.57
1916, .....	5,580	444	189	15.0	7.97
1917, .....	5,326	447	176	14.8	8.39
1918, .....	4,465	485	144	15.7	10.86
1919, .....	7,270	572	230	18.1	7.86
1920, .....	6,931	568	219	17.9	8.19
Five-year average, .	5,914	503	192	16.3	8.50
1921, .....	7,901	596	242.9	18.3	7.54

\* For year ending October 31.

Standard Morbidity and Mortality Tables showing the number of cases and deaths from reportable communicable diseases by months, by age groups and sex, and also tables showing the morbidity rates per 1,000 population, and indicated fatality rates for such diseases by counties and for the State as a whole, are appended to this report.

## REPORTED CASES OF CHICKENPOX IN NEW JERSEY

For the Calendar Year 1921 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, .....	279	53	65	48	33	7	13	7	1	1	4	21	28
1 year, .....	343	58	52	54	33	31	19	13	7	3	5	31	37
2 years, .....	433	63	85	62	59	44	26	12	2	2	5	25	48
3 years, .....	514	113	84	97	33	31	24	20	4	3	8	37	40
4 years, .....	622	119	98	106	88	45	38	8	3	4	7	44	62
Under 5 years, .....	2191	406	384	367	266	158	120	60	17	13	29	158	213
5 to 9 years, .....	4813	847	823	706	552	385	309	54	5	15	128	436	555
10 to 14 years, .....	767	132	121	105	86	67	42	16	2	6	21	63	86
15 to 19 years, .....	127	22	24	23	19	10	7	3	0	0	2	7	10
20 to 24 years, .....	66	12	7	11	8	8	4	4	2	2	3	3	3
25 to 34 years, .....	80	17	11	24	7	6	5	3	0	1	0	2	4
35 to 44 years, .....	22	5	3	6	2	2	1	0	0	0	0	3	0
45 to 54 years, .....	5	1	1	0	2	0	0	0	0	0	0	0	1
55 to 64 years, .....	2	0	0	0	1	0	0	0	0	0	0	0	0
65 years and over, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Age unknown, .....	7	1	1	2	0	0	1	0	0	0	1	0	1
Total, .....	8080	1463	1375	1244	943	636	489	140	26	37	181	673	873

## REPORTED CASES AND DEATHS FROM CHICKENPOX IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Sex Not Stated.	Total	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.
Under 1 year, .....	161	2	118	2	0	279	4
1 year, .....	170	1	173	1	0	343	2
2 years, .....	219	1	214	0	0	433	1
3 years, .....	270	0	244	0	0	514	0
4 years, .....	303	0	319	0	0	622	0
Under 5 years, .....	1123	4	1068	3	0	2191	7
5 to 9 years, .....	2405	0	2408	0	0	4813	0
10 to 14 years, .....	376	0	390	0	1	767	0
15 to 19 years, .....	86	0	61	0	0	127	0
20 to 24 years, .....	35	0	31	0	0	66	0
25 to 34 years, .....	47	0	33	0	0	80	0
35 to 44 years, .....	12	0	10	0	0	22	0
45 to 54 years, .....	4	0	1	0	0	5	0
55 to 64 years, .....	1	0	1	0	0	2	0
65 years and over, .....	0	0	0	0	0	0	0
Age unknown, .....	5	0	2	0	0	7	0
Total, .....	4074	4	4005	3	1	8080	7

REPORTED CASES OF DIPHTHERIA IN NEW JERSEY  
For the Calendar Year 1921 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, .....	114	14	10	11	8	9	9	10	2	5	7	11	18
1 year, .....	332	40	36	32	33	30	29	18	10	24	29	26	34
2 years, .....	547	85	56	62	53	50	27	21	14	39	46	73	
3 years, .....	736	102	83	65	60	42	35	36	38	44	61	80	90
4 years, .....	751	98	74	69	62	51	44	39	48	54	69	74	74
Under 5 years, .....	2450	339	259	239	218	182	135	124	114	141	205	237	289
5 to 9 years, .....	3211	336	316	282	269	324	252	154	147	196	347	337	290
10 to 14 years, .....	1102	121	125	95	77	102	91	86	36	67	121	111	120
15 to 19 years, .....	307	47	33	37	22	22	15	10	16	9	30	32	34
20 to 24 years, .....	213	35	18	23	23	14	15	15	5	1	18	22	22
25 to 34 years, .....	305	52	33	23	35	23	17	15	14	12	20	23	36
35 to 44 years, .....	141	20	17	18	12	5	13	4	6	4	14	12	16
45 to 54 years, .....	52	9	10	5	6	2	3	0	3	3	2	3	6
55 to 64 years, .....	22	5	1	4	1	4	0	0	2	2	1	1	0
65 years and over, .....	6	1	2	0	0	0	0	0	0	0	1	1	1
Age unknown, .....	62	7	8	1	5	7	5	3	4	2	7	5	8
Total, .....	7901	972	822	704	671	682	550	341	347	437	766	787	822

REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Sex Not Stated.	Total	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.
Under 1 year, .....	66	14	48	18	0	114	32
1 year, .....	192	47	140	38	0	332	85
2 years, .....	318	43	229	27	0	547	70
3 years, .....	386	44	330	36	0	736	80
4 years, .....	401	33	350	38	0	751	71
Under 5 years, .....	1363	181	1117	157	0	2490	338
5 to 9 years, .....	1548	105	1693	102	0	3211	207
10 to 14 years, .....	525	18	377	18	0	1102	34
15 to 19 years, .....	117	2	189	3	1	307	5
20 to 24 years, .....	60	1	133	0	0	213	1
25 to 34 years, .....	80	2	226	4	0	305	6
35 to 44 years, .....	40	3	101	1	0	141	4
45 to 54 years, .....	14	0	38	2	0	52	2
55 to 64 years, .....	5	0	17	0	0	22	0
65 years and over, .....	1	0	5	0	0	6	0
Age unknown, .....	26	0	36	0	0	62	0
Total, .....	3779	310	4122	287	1	7901	597

REPORTED CASES OF DYSENTERY IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year, .....	2	0	0	0	0	0	0	0	1	1	0	0	0
1 year, .....	3	0	0	0	0	0	0	0	0	1	0	1	0
2 years, .....	1	0	0	0	0	0	0	0	1	0	0	0	0
3 years, .....	2	0	0	0	0	0	0	0	1	1	0	0	0
4 years, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years, .....	7	0	0	0	0	0	0	3	3	0	1	0	0
5 to 9 years, .....	3	0	0	0	0	0	1	2	0	1	0	1	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, .....	1	0	0	0	1	0	0	0	0	0	0	0	0
35 to 44 years, .....	4	0	0	0	0	0	1	2	0	0	0	1	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 unknown, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total, .....	15	0	0	0	1	0	2	5	4	0	2	1	0

REPORTED CASES AND DEATHS FROM DYSENTERY IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	0	0	2	2	2	3
1 year, .....	0	0	2	0	2	0
2 years, .....	0	0	1	0	1	0
3 years, .....	2	0	0	1	2	1
4 years, .....	0	1	0	0	0	1
Under 5 years, .....	2	7	5	3	7	10
5 to 9 years, .....	1	0	2	1	3	1
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	1	0	1	0
35 to 44 years, .....	2	0	2	1	4	1
45 to 54 years, .....	0	1	0	0	0	1
55 to 64 years, .....	0	0	0	0	0	0
65 years and over, .....	0	0	3	0	3	0
Age unknown, .....	0	0	0	0	0	0
Total, .....	5	16	10	13	15	29

REPORTED CASES OF GERMAN MEASLES IN NEW JERSEY  
For the Calendar Year 1921 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.	37	4	3	9	5	6	1	1	1	1	0	2	4
1 year.	35	0	10	6	5	1	6	3	1	2	1	1	2
2 years.	52	5	5	7	10	4	6	4	0	2	3	5	6
3 years.	50	5	9	6	8	9	4	3	2	1	0	1	5
4 years.	49	2	10	7	6	11	4	2	1	0	0	1	5
Under 5 years.	223	16	37	35	34	31	21	13	5	5	3	8	18
5 to 9 years.	363	74	107	110	61	84	69	6	4	1	13	12	24
10 to 14 years.	161	13	20	32	28	16	13	2	0	3	1	5	5
15 to 19 years.	36	3	5	11	6	5	3	1	0	0	0	2	0
20 to 24 years.	24	3	1	5	7	5	0	0	0	1	0	0	2
25 to 34 years.	18	3	3	4	3	2	1	1	0	0	0	0	1
35 to 44 years.	5	1	1	1	0	1	1	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 unknown.	2	0	0	0	2	0	0	0	0	0	0	0	0
Total.	1037	118	174	218	141	144	108	23	9	10	17	27	45

REPORTED CASES AND DEATHS FROM GERMAN MEASLES IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year.	24	0	13	0	37	0
1 year.	21	0	17	0	38	0
2 years.	29	0	23	0	52	0
3 years.	32	0	18	0	50	0
4 years.	22	0	27	0	49	0
Under 5 years.	128	0	98	0	226	0
5 to 9 years.	263	0	297	0	560	0
10 to 14 years.	66	0	93	0	159	0
15 to 19 years.	20	0	16	0	36	0
20 to 24 years.	6	0	18	0	24	0
25 to 34 years.	4	0	14	0	18	0
35 to 44 years.	0	0	5	0	5	0
45 to 54 years.	0	0	0	0	0	0
55 to 64 years.	0	0	0	0	0	0
65 years and over.	0	0	0	0	0	0
Age unknown.	1	0	1	0	2	0
Total.	493	0	544	0	1037	0

REPORTED CASES OF INFLUENZA IN NEW JERSEY  
For the Calendar Year 1921 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.	9	1	2	4	0	0	0	0	0	0	0	1	1
1 year.	12	0	2	3	4	0	0	0	0	0	0	2	1
2 years.	16	2	5	7	1	0	0	0	0	0	0	0	0
3 years.	16	2	2	5	5	0	0	0	0	1	0	1	0
4 years.	17	3	5	5	3	0	1	0	0	0	0	0	0
Under 5 years.	70	8	18	24	13	0	1	0	0	1	1	4	2
5 to 9 years.	87	8	20	24	8	5	7	0	2	0	2	6	5
10 to 14 years.	39	10	14	15	11	4	0	0	0	1	0	2	2
15 to 19 years.	69	5	18	22	8	3	1	0	1	1	0	6	4
20 to 24 years.	77	15	17	26	7	0	0	0	1	1	2	3	5
25 to 34 years.	222	27	54	65	22	9	7	0	2	3	5	9	16
35 to 44 years.	167	22	46	55	24	8	0	1	1	0	0	6	4
45 to 54 years.	115	17	29	31	13	2	1	0	0	0	4	9	9
55 to 64 years.	55	9	12	19	7	3	0	0	0	1	1	2	1
65 years and over.	54	7	17	12	10	1	2	0	0	1	0	1	3
Age unknown.	10	0	4	3	0	1	0	0	0	0	1	1	0
Total.	985	123	247	299	123	35	20	1	7	9	16	49	51

REPORTED CASES AND DEATHS FROM INFLUENZA IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year.	4	18	5	16	9	34
1 year.	6	5	6	4	12	9
2 years.	10	2	6	4	16	8
3 years.	12	1	4	5	16	6
4 years.	11	3	6	1	17	4
Under 5 years.	43	29	27	30	70	59
5 to 9 years.	50	6	37	5	87	11
10 to 14 years.	30	0	29	0	59	0
15 to 19 years.	33	5	36	3	69	8
20 to 24 years.	33	0	39	3	72	9
25 to 34 years.	33	0	129	16	222	25
35 to 44 years.	77	16	90	15	167	31
45 to 54 years.	46	11	69	10	115	21
55 to 64 years.	22	22	33	12	55	34
65 years and over.	15	31	39	52	54	83
Age unknown.	4	0	6	0	10	0
Total.	451	135	534	146	985	251

REPORTED CASES OF MALARIA IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year.	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year.	1	0	0	0	0	1	0	0	0	0	0	0	0
2 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years.	1	0	0	0	0	0	0	1	0	0	0	0	0
4 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years.	2	0	0	0	0	1	0	1	0	0	0	0	0
5 to 9 years.	8	0	1	0	0	1	2	0	0	4	0	0	0
10 to 14 years.	11	0	0	0	0	1	3	3	0	4	0	0	0
15 to 19 years.	7	0	0	0	1	1	1	2	1	0	0	0	0
20 to 24 years.	13	1	0	2	0	1	1	2	4	2	2	0	0
25 to 34 years.	20	0	1	1	2	3	3	2	3	3	1	0	0
35 to 44 years.	17	0	0	1	0	0	1	1	1	1	1	2	0
45 to 54 years.	3	0	1	0	0	1	0	0	0	0	1	0	0
55 to 64 years.	1	0	0	0	0	0	0	0	0	0	1	0	0
65 years and over.	4	0	0	1	1	0	0	0	0	0	1	0	0
Age unknown.	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.	SS	1	3	5	3	9	11	12	20	11	12	1	0

REPORTED CASES AND DEATHS FROM MALARIA IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year.	0	0	0	0	0	0
1 year.	1	0	0	0	1	0
2 years.	0	0	0	0	0	0
3 years.	1	0	0	0	1	0
4 years.	0	0	0	0	0	0
Under 5 years.	2	0	0	0	2	0
5 to 9 years.	4	1	4	0	8	1
10 to 14 years.	4	1	1	0	11	1
15 to 19 years.	4	1	3	0	7	0
20 to 24 years.	11	4	1	4	15	4
25 to 34 years.	10	0	10	2	20	2
35 to 44 years.	11	2	6	0	17	2
45 to 54 years.	2	0	1	0	3	0
55 to 64 years.	1	1	0	0	1	1
65 years and over.	2	2	2	0	4	2
Age unknown.	0	0	0	0	0	0
Total.	57	8	31	2	88	10



REPORTED CASES OF MEASLES IN NEW JERSEY  
For the Calendar Year 1921 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, .....	282	30	24	47	41	34	25	17	9	8	5	14	28
1 year, .....	573	40	61	73	72	80	79	41	30	5	17	30	56
2 years, .....	571	24	66	62	64	89	84	55	15	4	9	42	57
3 years, .....	653	42	71	65	93	104	103	63	20	6	12	24	52
4 years, .....	713	40	62	84	121	119	118	49	23	5	11	38	43
Under 5 years, .....	2798	178	254	331	391	428	400	225	97	28	54	148	238
5 to 9 years, .....	3464	189	429	538	600	519	493	180	23	6	53	178	258
10 to 14 years, .....	537	24	74	96	120	106	48	9	4	2	10	21	23
15 to 19 years, .....	196	23	28	35	22	6	2	1	2	1	7	7	7
20 to 24 years, .....	83	15	10	23	12	8	3	0	0	1	0	0	5
25 to 34 years, .....	74	13	11	15	13	6	2	3	1	1	1	2	4
35 to 44 years, .....	28	1	2	3	5	8	0	4	0	0	3	1	1
45 to 54 years, .....	8	0	2	0	1	0	1	1	1	0	0	1	1
55 to 64 years, .....	2	0	1	0	0	0	0	0	0	0	0	1	0
65 years and over, .....	2	1	0	0	0	0	0	0	0	0	1	0	4
Age unknown, .....	45	2	4	7	11	9	4	1	2	0	1	0	4
Total, .....	7195	444	831	1048	1177	1104	957	425	129	40	123	358	539

REPORTED CASES AND DEATHS FROM MEASLES IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	136	14	146	9	282	23
1 year, .....	284	15	291	22	575	37
2 years, .....	293	13	278	5	571	18
3 years, .....	322	6	323	1	655	7
4 years, .....	354	3	359	3	713	6
Under 5 years, .....	1401	51	1395	40	2798	91
5 to 9 years, .....	1747	8	1717	2	3464	10
10 to 14 years, .....	254	1	283	0	537	1
15 to 19 years, .....	85	0	71	0	156	0
20 to 24 years, .....	49	0	34	0	83	0
25 to 34 years, .....	27	1	47	0	74	1
35 to 44 years, .....	15	0	13	1	28	1
45 to 54 years, .....	4	0	4	0	8	0
55 to 64 years, .....	0	0	2	0	2	0
65 years and over, .....	0	0	0	0	0	0
Age unknown, .....	20	0	25	0	45	0
Total, .....	3602	61	3593	43	7195	104

REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year, .....	14	4	2	1	1	0	1	0	2	0	0	2	1
1 year, .....	13	3	3	3	0	1	0	1	0	1	0	1	0
2 years, .....	4	1	0	0	0	1	0	0	1	0	1	0	0
3 years, .....	4	1	0	0	1	0	1	0	0	0	1	0	0
4 years, .....	4	1	1	0	0	0	0	0	0	0	2	0	0
Under 5 years, .....	39	10	6	4	2	1	3	1	2	2	2	5	1
5 to 9 years, .....	30	1	3	5	0	3	2	2	5	3	3	1	2
10 to 14 years, .....	15	1	2	2	2	1	1	2	0	1	2	0	0
15 to 19 years, .....	8	0	0	2	0	1	1	2	1	0	0	0	1
20 to 24 years, .....	4	1	0	0	0	1	0	0	0	0	1	0	0
25 to 34 years, .....	5	1	0	1	0	0	0	0	0	1	2	0	0
35 to 44 years, .....	3	0	0	2	1	0	0	0	0	0	0	0	0
45 to 54 years, .....	2	1	0	0	0	0	0	0	1	0	0	0	0
55 to 64 years, .....	1	0	0	0	0	1	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 unknown, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total, .....	107	15	12	17	5	6	7	7	10	8	9	7	4

REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS  
IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	9	9	5	1	14	10
1 year, .....	6	8	7	2	13	8
2 years, .....	1	0	3	0	4	0
3 years, .....	1	1	3	1	4	2
4 years, .....	4	2	0	1	4	3
Under 5 years, .....	21	18	18	5	39	23
5 to 9 years, .....	18	7	12	6	30	13
10 to 14 years, .....	8	3	7	2	15	5
15 to 19 years, .....	5	3	3	2	8	5
20 to 24 years, .....	2	4	2	2	4	6
25 to 34 years, .....	3	1	2	2	5	3
35 to 44 years, .....	1	2	2	1	3	3
45 to 54 years, .....	0	0	2	1	2	1
55 to 64 years, .....	1	1	0	0	1	1
65 years and over, .....	0	0	0	0	0	0
Age unknown, .....	0	0	0	0	0	0
Total, .....	59	39	48	21	107	60

REPORTED CASES OF PARATYPHOID FEVER IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
5 to 9 years, .....	2	0	0	0	0	0	0	0	1	0	1	0	0
10 to 14 years, .....	1	1	0	0	0	0	0	0	0	0	0	0	0
15 to 19 years, .....	1	1	0	0	0	0	1	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	0	0	0	0	0	0	1	0	1	0
45 to 54 years, .....	2	0	0	1	0	0	0	0	0	0	0	1	0
55 to 64 years, .....	2	0	0	1	0	0	0	0	0	0	1	0	0
65 years and over, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Age unknown, .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total, .....	10	1	0	2	0	0	1	0	1	1	2	2	0

REPORTED CASES AND DEATHS FROM PARATYPHOID FEVER IN NEW JERSEY  
For the Calendar Year 1921 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, .....	2	0	0	0	2	0
10 to 14 years, .....	1	0	0	0	1	0
15 to 19 years, .....	0	0	1	1	1	1
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	0	0	0	2	0
45 to 54 years, .....	1	0	1	0	2	0
55 to 64 years, .....	1	0	1	0	2	0
65 years and over, .....	0	0	0	0	0	0
Age unknown, .....	0	0	0	0	0	0
Total, .....	7	0	3	1	10	1

REPORTED CASES OF PNEUMONIA IN NEW JERSEY

For the Calendar Year 1921 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, .....	511	87	77	75	51	42	28	10	16	21	10	23	71
1 year, .....	533	83	67	86	70	27	35	13	14	17	23	36	62
2 years, .....	369	69	59	40	35	40	26	7	10	12	11	22	37
3 years, .....	280	50	45	38	23	29	15	6	13	6	15	15	34
4 years, .....	223	31	38	43	21	22	18	6	3	2	8	12	19
Under 5 years, .....	1924	320	286	282	200	160	122	42	56	58	67	108	223
5 to 9 years, .....	837	98	118	144	111	92	41	16	16	21	45	55	80
10 to 14 years, .....	293	29	49	42	26	33	15	10	9	13	9	20	30
15 to 19 years, .....	214	27	34	41	21	13	9	13	7	3	13	11	22
20 to 24 years, .....	188	19	24	42	19	14	12	4	11	5	12	11	15
25 to 34 years, .....	618	71	84	97	49	34	15	9	12	12	35	50	48
35 to 44 years, .....	450	67	56	86	44	25	22	9	10	16	31	50	34
45 to 54 years, .....	327	46	42	64	37	18	13	14	8	17	34	21	21
55 to 64 years, .....	296	52	46	59	32	19	8	3	2	4	17	30	24
65 years and over, .....	344	52	57	72	26	26	9	6	3	8	14	33	38
Age unknown, .....	40	3	7	8	5	2	3	2	0	1	3	4	2
Total, .....	5431	784	803	937	580	436	269	127	140	149	263	406	537

REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY  
For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Sex Not Stated.	Total	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.
Under 1 year, .....	287	426	224	329	0	511	755
1 year, .....	302	169	231	142	0	533	311
2 years, .....	219	50	158	53	0	368	103
3 years, .....	153	53	136	21	0	289	54
4 years, .....	124	26	90	11	0	223	37
Under 5 years, .....	1076	704	848	556	0	1924	1269
5 to 9 years, .....	467	65	370	82	0	837	117
10 to 14 years, .....	163	27	132	16	0	295	43
15 to 19 years, .....	132	41	81	19	0	214	60
20 to 24 years, .....	115	28	73	29	0	188	57
25 to 34 years, .....	332	162	184	75	0	516	177
35 to 44 years, .....	299	174	150	84	1	450	258
45 to 54 years, .....	217	175	110	116	0	327	291
55 to 64 years, .....	150	162	137	153	0	286	315
65 years and over, .....	198	276	208	332	0	544	650
Age unknown, .....	23	0	17	0	0	40	0
Total, .....	3129	1754	2310	1483	1	5431	3237

REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1921 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, .....	11	0	0	0	0	0	0	0	2	5	3	1	0
1 year, .....	25	1	0	0	0	1	1	0	4	9	5	2	2
2 years, .....	24	1	0	0	0	0	0	0	5	5	7	4	1
3 years, .....	27	0	0	0	0	0	1	5	6	6	9	0	0
4 years, .....	16	0	0	1	0	0	1	0	5	6	2	1	0
Under 5 years, .....	103	2	0	1	0	1	3	10	22	33	23	5	3
5 to 9 years, .....	38	0	0	0	2	0	1	0	7	17	7	4	0
10 to 14 years, .....	16	2	0	1	1	0	1	2	3	4	1	1	0
15 to 19 years, .....	9	1	0	0	0	0	0	1	1	2	1	3	0
20 to 24 years, .....	2	0	0	0	0	0	0	0	1	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, .....	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 unknown, .....	2	0	0	1	0	0	0	0	0	0	0	0	1
Total, .....	170	5	0	3	3	1	6	13	35	35	34	10	5

REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	6	0	2	1	11	1
1 year, .....	15	2	10	0	25	2
2 years, .....	12	1	12	7	24	8
3 years, .....	7	2	20	3	27	5
4 years, .....	7	1	9	1	16	2
Under 5 years, .....	50	6	53	12	103	18
5 to 9 years, .....	21	7	17	9	38	16
10 to 14 years, .....	7	2	9	5	16	7
15 to 19 years, .....	6	1	3	4	9	5
20 to 24 years, .....	1	1	1	2	2	2
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	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 unknown, .....	1	0	1	0	2	0
Total, .....	86	17	84	31	170	48

REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1921 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, .....	58	10	8	16	2	3	4	0	3	0	3	3	6
1 year, .....	184	32	28	23	13	22	12	6	7	4	10	12	15
2 years, .....	364	50	57	39	38	30	34	7	5	9	10	24	32
3 years, .....	623	94	99	95	63	43	41	20	12	17	36	42	64
4 years, .....	680	95	103	80	81	66	38	14	17	12	32	59	75
Under 5 years, .....	1912	281	295	262	197	172	129	47	44	42	91	140	212
5 to 9 years, .....	4000	564	486	494	448	436	312	89	72	132	221	314	441
10 to 14 years, .....	1911	247	283	255	217	219	119	43	35	46	86	150	211
15 to 19 years, .....	572	78	101	96	63	48	25	15	7	9	33	34	63
20 to 24 years, .....	294	43	49	49	38	15	14	9	9	4	7	27	30
25 to 34 years, .....	324	47	45	48	34	24	15	12	8	5	17	28	41
35 to 44 years, .....	169	10	12	19	15	13	8	2	3	3	6	11	7
45 to 54 years, .....	27	4	5	4	8	5	0	1	0	0	0	1	1
55 to 64 years, .....	4	0	1	0	0	2	0	0	0	0	0	0	1
65 years and over, .....	1	0	0	0	0	0	0	0	0	0	0	0	1
Age unknown, .....	65	5	11	11	9	7	2	3	2	1	2	4	8
Total, .....	9228	1279	1288	1238	1027	941	624	221	180	242	463	709	1016

REPORTED CASES AND DEATHS FROM SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Sex Not Stated.	Total	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.
Under 1 year, .....	31	2	27	6	0	58	8
1 year, .....	100	20	84	16	0	184	36
2 years, .....	188	27	178	14	0	364	41
3 years, .....	319	11	307	15	0	626	26
4 years, .....	341	8	339	14	0	680	22
Under 5 years, .....	979	68	933	65	0	1912	133
5 to 9 years, .....	1914	24	2005	31	0	4009	56
10 to 14 years, .....	969	6	1001	5	1	1911	11
15 to 19 years, .....	368	4	264	2	0	672	6
20 to 24 years, .....	85	1	139	6	0	294	7
25 to 34 years, .....	124	5	199	5	1	324	10
35 to 44 years, .....	46	1	63	2	0	169	3
45 to 54 years, .....	6	0	21	2	0	27	2
55 to 64 years, .....	1	0	3	1	0	4	1
65 years and over, .....	0	0	1	0	0	1	0
Age unknown, .....	39	0	26	0	0	65	0
Total, .....	4421	109	4805	119	2	9228	228

REPORTED CASES OF SMALLPOX IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year, .....	2	0	1	0	0	0	0	0	0	0	0	0	1
1 year, .....	2	0	0	0	1	0	1	0	0	0	0	0	0
2 years, .....	8	0	0	1	2	3	1	0	0	0	1	0	0
3 years, .....	7	1	1	0	2	1	0	1	0	1	0	1	0
4 years, .....	7	0	0	1	1	1	3	0	0	0	1	0	0
Under 5 years, .....	26	1	2	2	6	5	5	1	0	0	3	0	1
5 to 9 years, .....	51	0	0	13	13	21	0	0	0	0	2	1	1
10 to 14 years, .....	57	0	0	11	14	24	0	0	0	0	5	3	0
15 to 19 years, .....	41	1	2	5	18	8	0	1	0	0	6	0	0
20 to 24 years, .....	14	0	2	3	1	2	4	0	0	0	1	1	0
25 to 34 years, .....	25	1	1	5	6	7	4	0	0	0	0	1	0
35 to 44 years, .....	22	1	2	3	5	2	2	0	0	0	2	3	2
45 to 54 years, .....	11	2	2	1	1	4	0	1	0	0	0	0	0
55 to 64 years, .....	3	0	1	0	0	0	0	0	0	0	1	1	0
65 years and over, .....	3	1	0	1	0	0	0	0	0	0	0	1	0
Age unknown, .....	2	0	0	0	0	2	0	0	0	0	0	0	0
Total, .....	235	7	11	45	64	75	15	3	0	0	20	11	4

## REPORTED CASES AND DEATHS FROM SMALLPOX IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	1	0	1	0	2	0
1 year, .....	0	0	2	0	2	0
2 years, .....	8	0	0	0	8	0
3 years, .....	3	0	4	0	7	0
4 years, .....	2	0	5	0	7	0
Under 5 years, .....	14	0	12	0	26	0
5 to 9 years, .....	25	0	26	0	51	0
10 to 14 years, .....	29	0	28	0	57	0
15 to 19 years, .....	23	0	18	0	41	0
20 to 24 years, .....	10	0	4	0	14	0
25 to 34 years, .....	14	0	11	0	25	0
35 to 44 years, .....	15	0	7	0	22	0
45 to 54 years, .....	10	0	1	0	11	0
55 to 64 years, .....	0	0	3	0	3	0
65 years and over, .....	2	0	1	0	3	0
Age unknown, .....	1	0	1	0	2	0
Total, .....	143	0	112	0	255	0

## REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1921 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, .....	30	5	3	2	1	4	4	0	5	1	2	3	0
1 year, .....	40	4	3	5	2	2	5	4	4	5	1	3	2
2 years, .....	37	5	3	3	3	5	1	4	4	3	2	1	1
3 years, .....	35	5	2	2	1	1	1	3	9	4	0	3	4
4 years, .....	27	2	1	2	3	4	0	2	6	4	2	1	0
Under 5 years, .....	183	20	14	14	10	16	11	13	28	17	7	12	7
5 to 9 years, .....	283	17	24	20	34	24	21	13	35	29	17	18	15
10 to 14 years, .....	303	25	20	28	24	28	31	30	32	31	23	18	15
15 to 19 years, .....	431	42	30	50	42	41	33	29	38	34	38	24	30
20 to 24 years, .....	687	53	64	77	62	52	54	52	74	60	44	51	42
25 to 34 years, .....	1359	135	103	144	123	104	107	114	151	101	108	97	103
35 to 44 years, .....	951	108	79	84	70	87	76	64	87	82	80	67	67
45 to 54 years, .....	602	49	48	45	77	48	57	52	56	49	34	37	50
55 to 64 years, .....	310	30	26	33	29	20	14	24	23	22	21	29	20
65 years and over, .....	109	13	6	15	11	1	9	7	10	7	12	8	10
Age unknown, .....	53	1	1	3	4	3	4	2	3	9	1	1	3
Total, .....	3255	495	415	513	486	433	417	401	537	451	385	380	392

## REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Sex Not Stated.		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year, .....	18	29	12	31	0	0	30	60
1 year, .....	18	24	22	23	0	0	40	47
2 years, .....	22	17	15	15	0	0	37	32
3 years, .....	18	9	17	8	0	0	35	17
4 years, .....	14	7	13	5	0	0	27	12
Under 5 years, .....	90	86	79	82	0	0	169	168
5 to 9 years, .....	144	32	124	21	0	0	268	53
10 to 14 years, .....	146	17	156	39	1	1	306	56
15 to 19 years, .....	199	83	232	139	0	0	431	222
20 to 24 years, .....	301	128	386	224	0	0	687	352
25 to 34 years, .....	731	364	659	328	0	0	1390	692
35 to 44 years, .....	587	393	364	232	0	0	951	625
45 to 54 years, .....	436	351	166	127	0	0	602	478
55 to 64 years, .....	200	173	101	78	0	0	310	251
65 years and over, .....	74	90	35	58	0	0	109	148
Age unknown, .....	17	0	18	0	0	0	35	0
Total, .....	2934	1697	2320	1328	1	1	5255	3025

## REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1921 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, .....	8	0	0	1	1	0	0	1	0	2	3	0	0
2 years, .....	17	0	0	0	0	1	1	1	2	4	4	2	2
3 years, .....	20	0	0	2	0	0	0	1	4	4	5	3	1
4 years, .....	25	0	1	0	2	0	1	4	5	7	4	1	0
Under 5 years, .....	70	0	1	3	3	1	2	7	11	17	18	6	3
5 to 9 years, .....	173	2	2	4	8	3	6	11	40	49	29	18	10
10 to 14 years, .....	197	7	3	4	6	1	3	12	63	49	30	11	6
15 to 19 years, .....	140	4	1	5	4	3	6	11	42	30	23	6	5
20 to 24 years, .....	100	2	3	4	4	5	7	7	24	14	14	10	6
25 to 34 years, .....	220	6	7	5	5	8	8	15	71	43	24	11	12
35 to 44 years, .....	132	2	3	1	4	1	5	11	37	31	20	12	3
45 to 54 years, .....	98	3	2	5	2	3	4	1	35	17	8	13	5
55 to 64 years, .....	42	0	2	1	1	0	3	2	18	9	5	1	0
65 years and over, .....	22	1	2	0	1	0	2	0	3	4	7	1	1
Age unknown, .....	16	0	0	0	0	0	1	0	1	5	7	0	2
Total, .....	1210	27	26	32	38	25	47	77	347	264	183	89	55

## REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1921 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, .....	6	1	2	1	8	2
2 years, .....	7	0	10	3	17	3
3 years, .....	9	0	11	0	20	0
4 years, .....	13	0	12	0	25	0
Under 5 years, .....	35	1	35	4	70	5
5 to 9 years, .....	79	2	94	4	173	6
10 to 14 years, .....	115	5	82	5	197	10
15 to 19 years, .....	77	19	63	4	140	23
20 to 24 years, .....	104	7	46	5	150	12
25 to 34 years, .....	104	14	116	10	220	33
35 to 44 years, .....	73	14	59	9	132	23
45 to 54 years, .....	52	8	46	7	98	15
55 to 64 years, .....	22	6	20	0	42	12
65 years and over, .....	13	4	9	2	22	6
Age unknown, .....	7	0	9	0	16	0
Total, .....	631	80	579	65	1210	148

## REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1921 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.	788	81	100	80	128	88	87	70	86	33	18	16	22
1 year.	773	75	72	112	114	97	73	82	59	32	24	17	16
2 years.	963	94	111	129	125	114	103	90	73	42	23	24	29
3 years.	1146	129	113	141	202	147	120	107	63	51	27	21	23
4 years.	1041	101	110	142	150	152	113	103	51	40	29	20	30
Under 5 years.	4709	480	515	604	717	598	490	452	302	198	127	98	122
5 to 9 years.	3628	468	482	551	586	468	358	261	118	88	67	74	137
10 to 14 years.	350	52	50	58	58	49	30	15	15	8	3	5	7
15 to 19 years.	35	5	9	3	8	5	2	1	1	2	1	0	0
20 to 24 years.	13	3	0	0	2	3	1	1	1	0	1	0	1
25 to 34 years.	49	5	4	7	6	7	6	5	4	2	1	0	2
35 to 44 years.	29	8	2	6	2	2	1	4	2	1	0	0	1
45 to 54 years.	14	2	1	2	2	3	0	1	2	0	1	0	0
55 to 64 years.	9	1	0	2	1	1	2	1	1	0	0	0	0
65 years and over.	18	1	1	3	3	5	1	3	0	0	0	0	1
Age unknown.	80	9	23	12	8	10	6	8	0	0	0	0	4
Total.	8934	1024	1087	1248	1391	1151	908	752	446	269	201	177	275

## REPORTED CASES AND DEATHS FROM WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year.	410	94	376	86	786	180
1 year.	411	38	362	48	773	86
2 years.	400	13	473	14	963	27
3 years.	516	2	630	7	1146	9
4 years.	503	2	538	4	1041	6
Under 5 years.	2330	149	2379	159	4709	308
5 to 9 years.	1764	5	1874	6	3628	11
10 to 14 years.	167	0	183	0	350	0
15 to 19 years.	19	0	16	0	35	0
20 to 24 years.	3	0	10	0	13	0
25 to 34 years.	10	0	39	0	49	0
35 to 44 years.	8	0	21	0	29	0
45 to 54 years.	3	0	11	1	14	1
55 to 64 years.	2	0	7	0	9	0
65 years and over.	7	0	11	0	18	0
Age unknown.	45	0	35	0	80	0
Total	4348	154	4886	166	8934	320

## REPORTED CASES OF ANTHRAX IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year.	0	0	0	0	0	0	0	0	0	0	0	0	0
1 year.	0	0	0	0	0	0	0	0	0	0	0	0	0
2 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
Under 5 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
5 to 9 years.	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.	1	0	0	0	0	0	0	0	0	0	0	0	1
25 to 34 years.	3	0	0	0	0	0	1	0	2	0	0	0	0
35 to 44 years.	3	0	0	0	0	0	0	0	0	1	2	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.	2	0	0	0	0	0	0	2	0	0	0	0	0
Age unknown.	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.	9	0	0	0	0	0	0	1	2	2	1	2	1

## REPORTED CASES AND DEATHS FROM ANTHRAX IN NEW JERSEY

For the Calendar Year 1921 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.	1	0	0	0	1	0
25 to 34 years.	3	0	1	0	4	0
35 to 44 years.	2	0	1	0	3	0
45 to 54 years.	0	0	0	0	0	0
55 to 64 years.	0	0	0	1	0	1
65 years and over.	2	0	0	0	2	0
Age unknown.	0	0	0	0	0	0
Total.	8	0	1	1	9	1

## REPORTED CASES OF CHANCROID IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 2 years.	0	0	0	0	0	0	0	0	0	0	0	0	0
2 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.	12	1	0	1	1	0	9	2	1	1	2	0	3
20 to 24 years.	33	3	2	2	4	1	4	1	5	3	5	2	1
25 to 34 years.	37	7	5	5	5	2	5	3	4	4	2	3	3
35 to 39 years.	4	0	1	0	0	0	1	1	0	0	1	0	0
40 to 49 years.	5	0	2	1	0	0	1	0	0	0	0	0	1
50 to 59 years.	4	0	0	0	0	0	0	2	2	0	0	0	0
60 years and over.	0	0	0	0	0	0	0	0	0	0	0	0	0
Age unknown.	1	0	0	0	0	0	0	0	0	0	0	0	1
Total.	96	11	10	6	10	1	8	6	11	8	12	5	8

## REPORTED CASES OF GONORRHEA IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 2 years, .....	14	0	1	0	1	1	1	1	5	0	1	0	3
2 to 9 years, .....	49	3	1	4	2	3	7	3	4	6	8	8	2
10 to 14 years, .....	13	0	2	1	0	1	0	0	1	3	6	1	
15 to 19 years, .....	323	33	17	26	31	20	26	19	27	30	34	23	26
20 to 24 years, .....	1018	101	79	77	71	68	94	88	95	85	114	67	79
25 to 34 years, .....	903	96	63	74	73	95	87	53	64	70	78	71	68
35 to 39 years, .....	159	19	14	19	20	21	20	13	22	18	17	10	6
40 to 49 years, .....	198	13	9	10	12	5	8	5	10	6	13	4	13
50 to 59 years, .....	36	5	5	7	4	0	2	2	4	3	2	1	1
60 years and over, .....	15	2	1	4	0	0	2	1	2	0	2	0	1
Age unknown, .....	58	1	2	3	1	7	5	5	6	15	5	6	2
Total, .....	2738	273	196	225	215	220	233	199	239	252	275	198	202

## REPORTED CASES OF SYPHILIS IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Months.

AGE GROUPS.	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 2 years, .....	32	2	5	1	4	4	0	1	4	1	0	6	6
2 to 9 years, .....	52	6	5	13	1	4	2	4	1	2	9	2	3
10 to 14 years, .....	60	7	9	4	3	6	7	4	3	2	5	8	2
15 to 19 years, .....	220	25	21	21	19	12	24	15	13	19	13	19	19
20 to 24 years, .....	593	73	52	54	54	51	56	44	34	34	53	48	40
25 to 34 years, .....	945	94	71	100	67	96	87	61	69	64	75	73	91
35 to 39 years, .....	383	54	21	45	25	37	30	18	22	23	42	26	30
40 to 49 years, .....	479	37	37	47	45	23	28	30	30	37	31	36	45
50 to 59 years, .....	224	39	13	14	17	10	23	13	19	9	23	18	26
60 years and over, .....	87	14	8	11	4	4	7	7	10	3	3	5	11
Age unknown, .....	80	14	3	5	2	10	9	7	9	3	4	6	8
Total, .....	3155	425	247	315	241	200	277	208	208	200	259	241	281

## REPORTED CASES AND DEATHS FROM VENEREAL DISEASES IN NEW JERSEY

For the Calendar Year 1921 By Age Groups and Sex.

AGE GROUPS.	Male		Female		Total	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Under 2 years, .....	27	46	19	29	46	75
2 to 9 years, .....	35	0	66	0	101	0
10 to 14 years, .....	32	1	43	1	75	2
15 to 19 years, .....	355	3	200	0	555	3
20 to 24 years, .....	1319	7	325	2	1644	9
25 to 34 years, .....	1489	17	396	11	1885	28
35 to 39 years, .....	1188	78	356	26	1544	104
Age unknown, .....	96	0	43	0	139	0
Total, .....	4541	152	1448	69	5989	*221

\*200 Deaths occurred from Syphilis.  
12 Deaths occurred from Gonorrhoea.  
0 Deaths occurred from Chancroid.

221 Deaths total.

## CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR CHICKENPOX AND DIPHTHERIA.

COUNTIES.	CHICKENPOX.				DIPHTHERIA.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	304	3.54	0	0	217	2.52	16	7.37
Bergen, .....	604	2.72	1	0.16	828	2.82	42	6.68
Burlington, .....	130	2.13	0	0	134	1.59	13	9.70
Camden, .....	250	1.26	0	0	412	2.98	40	9.70
Cape May, .....	56	2.88	0	0	14	0.72	2	14.28
Cumberland, .....	113	1.86	0	0	55	0.88	7	12.72
Essex, .....	3063	4.54	2	0.06	1531	2.27	70	4.96
Gloucester, .....	120	2.40	0	0	83	1.70	6	7.05
Hudson, .....	929	1.41	1	0.10	1610	2.30	135	8.38
Hunterdon, .....	31	0.94	0	0	27	0.82	3	11.11
Mercer, .....	245	1.48	1	0.40	359	2.17	32	8.91
Middlesex, .....	74	0.43	0	0	740	4.85	66	8.91
Monmouth, .....	166	1.53	0	0	94	0.88	13	13.82
Morris, .....	296	3.52	0	0	246	2.93	30	12.19
Ocean, .....	21	0.94	0	0	14	0.62	1	7.14
Passaic, .....	661	2.29	1	0.16	740	2.78	37	7.70
Salem, .....	50	1.31	0	0	58	1.52	6	10.34
Somerset, .....	77	1.55	0	0	77	1.55	9	11.68
Sussex, .....	21	0.85	0	0	29	1.17	1	3.44
Union, .....	864	4.12	1	0.11	764	3.94	37	4.84
Warren, .....	2	0.04	0	0	67	1.47	4	5.97
State, .....	8080	2.48	7	0.08	7901	2.42	596	7.54

## REPORTED CASES AND DEATHS BY COUNTIES FOR 1921 FROM DYSENTERY, LEPROSY, OPHTHALMIA NEONATORUM AND PARATYPHOID FEVER.

COUNTIES.	DYSENTERY.		LEPROSY.		OPHTHALMIA NEONATORUM.		PARATYPHOID.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Atlantic, .....	0	3	1	0	1	0	1	0
Bergen, .....	0	1	0	0	1	0	0	0
Burlington, .....	0	0	0	0	3	0	0	0
Camden, .....	3	3	0	0	0	0	0	0
Cape May, .....	0	0	0	0	0	0	0	0
Cumberland, .....	0	3	0	0	0	0	0	0
Essex, .....	11	2	1	0	33	0	3	0
Gloucester, .....	1	0	0	0	0	0	0	0
Hudson, .....	0	2	0	0	5	0	2	0
Hunterdon, .....	0	0	0	0	1	0	0	0
Mercer, .....	0	2	0	0	3	0	0	0
Middlesex, .....	0	3	0	0	1	0	0	0
Monmouth, .....	1	0	0	0	0	0	1	0
Morris, .....	0	1	0	0	0	0	1	1
Ocean, .....	0	2	0	0	0	0	0	0
Passaic, .....	0	3	0	0	2	0	2	0
Salem, .....	0	1	0	0	0	0	0	0
Somerset, .....	0	2	0	0	3	0	0	0
Sussex, .....	0	2	0	0	0	0	0	0
Union, .....	2	1	0	0	1	0	0	0
Warren, .....	0	0	0	0	0	0	0	0
State, .....	15	31	2	0	54	0	10	1

REPORTED CASES AND DEATHS AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR INFLUENZA AND PNEUMONIA.

COUNTIES.	INFLUENZA.			PNEUMONIA.		
	Cases.	Deaths.	Per Cent. Fatality.	Cases.	Deaths.	Per Cent. Fatality.
Atlantic, .....	2	11	*	69	78	*
Bergen, .....	33	20	37.73	307	183	59.60
Burlington, .....	121	20	16.52	71	84	*
Camden, .....	12	19	*	237	268	*
Cape May, .....	15	3	20.00	21	24	*
Cumberland, .....	23	13	56.52	85	51	60.00
Essex, .....	451	40	8.86	3118	565	18.12
Gloucester, .....	23	6	26.08	67	80	89.55
Hudson, .....	119	54	45.37	485	749	*
Hunterdon, .....	1	4	*	13	32	*
Mercer, .....	63	13	20.63	281	170	60.49
Middlesex, .....	4	14	*	53	155	*
Monmouth, .....	9	7	77.77	46	89	*
Morris, .....	1	7	*	120	106	88.33
Ocean, .....	3	4	*	0	16	*
Passaic, .....	42	19	45.23	171	239	*
Salem, .....	2	10	*	11	80	*
Somerset, .....	3	3	100.00	17	41	*
Sussex, .....	19	3	15.78	37	29	78.37
Union, .....	19	12	63.15	209	211	*
Warren, .....	0	11	*	13	55	*
State, .....	985	293	29.74	5431	3250	59.84

CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR MALARIA AND EPIDEMIC CEREBROSPINAL MENINGITIS.

COUNTIES.	MALARIA.				EPIDEMIC CEREBROSPINAL MENINGITIS.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	0	0	0	0	6	0.06	2	33.33
Bergen, .....	8	0.03	1	12.50	12	0.05	5	41.66
Burlington, .....	2	0.02	1	50.00	0	0	0	*
Camden, .....	0	0	1	*	0	0	2	*
Cape May, .....	1	0.05	0	0	0	0	0	0
Cumberland, .....	0	0	0	0	2	0.03	1	50.00
Essex, .....	25	0.03	0	0	30	0.04	11	36.66
Gloucester, .....	0	0	0	0	1	0.02	0	*
Hudson, .....	7	0.01	0	0	23	0.03	12	52.17
Hunterdon, .....	0	0	0	0	0	0	1	*
Mercer, .....	7	0.04	0	0	8	0.04	3	37.50
Middlesex, .....	8	0.04	0	0	2	0.01	7	*
Monmouth, .....	0	0	0	0	4	0.03	2	50.00
Morris, .....	1	0.01	0	0	3	0.03	0	0
Ocean, .....	1	0.04	1	100.00	0	0	0	0
Passaic, .....	19	0.07	4	21.05	6	0.02	5	83.33
Salem, .....	1	0.02	0	0	1	0.02	3	0
Somerset, .....	2	0.04	0	0	1	0.02	0	0
Sussex, .....	1	0.04	0	0	0	0	0	0
Union, .....	4	0.01	1	25.00	8	0.03	4	50.00
Warren, .....	1	0.02	1	100.00	0	0	1	*
State, .....	88	0.02	10	11.36	107	0.03	60	56.07

\*More deaths than cases reported.

CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR MEASLES AND GERMAN MEASLES.

COUNTIES.	MEASLES.				GERMAN MEASLES.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	130	1.51	0	0	11	0.12	0	0
Bergen, .....	163	0.74	6	3.63	49	0.22	0	0
Burlington, .....	363	4.31	2	0.55	20	0.23	0	0
Camden, .....	117	1.09	5	4.27	2	0.01	0	0
Cape May, .....	20	0.50	0	0	14	0.72	0	0
Cumberland, .....	239	3.83	2	0.83	10	0.16	0	0
Essex, .....	2760	4.09	29	0.72	754	1.11	0	0
Gloucester, .....	44	0.88	0	0	8	0.16	0	0
Hudson, .....	1044	1.62	32	3.06	7	0.01	0	0
Hunterdon, .....	80	2.44	0	0	5	0.15	0	0
Mercer, .....	360	2.17	4	1.11	2	0.01	0	0
Middlesex, .....	284	1.67	5	1.76	3	0.01	0	0
Monmouth, .....	143	1.34	3	2.09	29	0.18	0	0
Morris, .....	103	1.22	6	5.82	4	0.04	0	0
Ocean, .....	72	3.23	0	0	1	0.04	0	0
Passaic, .....	647	2.43	5	0.77	74	0.27	0	0
Salem, .....	11	0.28	1	9.09	1	0.02	0	0
Somerset, .....	48	0.97	1	2.08	2	0.04	0	0
Sussex, .....	14	0.56	0	0	0	0	0	0
Union, .....	543	2.59	6	1.10	50	0.23	0	0
Warren, .....	8	0.17	5	62.50	0	0	0	0
State, .....	7195	2.21	103	1.43	1037	0.81	0	0

CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR ACUTE ANTERIOR POLIOMYELITIS AND SCARLET FEVER.

COUNTIES.	POLIOMYELITIS.				SCARLET FEVER.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	1	0.01	0	0	292	3.40	4	1.30
Bergen, .....	19	0.08	4	21.05	665	0.29	19	2.85
Burlington, .....	5	0.05	1	20.00	141	1.67	2	1.41
Camden, .....	3	0.01	3	100.00	447	2.25	8	1.78
Cape May, .....	0	0	0	0	49	2.52	0	0
Cumberland, .....	2	0.03	0	0	138	2.33	3	1.80
Essex, .....	51	0.04	8	25.80	2935	4.38	45	1.52
Gloucester, .....	0	0	0	0	0	0	1	1.06
Hudson, .....	44	0.06	12	27.27	1250	1.94	58	4.64
Hunterdon, .....	2	0.06	0	0	93	2.83	0	0
Mercer, .....	6	0.03	1	16.66	431	2.60	10	2.32
Middlesex, .....	3	0.01	2	66.66	306	0.18	19	6.20
Monmouth, .....	5	0.04	5	100.00	192	1.80	1	0.52
Morris, .....	1	0.01	0	0	346	4.12	3	2.60
Ocean, .....	0	0	0	0	25	1.12	3	12.00
Passaic, .....	25	0.09	5	20.00	579	2.17	38	6.56
Salem, .....	1	0.02	0	0	111	2.91	0	0
Somerset, .....	1	0.02	0	0	130	2.63	2	1.53
Sussex, .....	0	0	0	0	26	1.05	0	0
Union, .....	18	0.08	5	27.77	775	3.70	9	1.16
Warren, .....	3	0.06	1	33.33	165	3.63	1	0.60
State, .....	170	0.05	47	27.64	9228	2.83	232	2.51

## REPORTED CASES AND DEATHS BY COUNTIES FOR 1921 FROM RABIES, TRACHOMA AND TRICHINOSIS.

COUNTIES.	RABIES.		TRACHOMA.		TRICHINOSIS.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Atlantic, .....	0	0	1	0	6	0
Bergen, .....	0	1	2	0	2	0
Burlington, .....	0	0	0	0	0	0
Camden, .....	0	0	0	0	0	0
Cape May, .....	0	0	0	0	0	0
Cumberland, .....	0	0	6	0	0	0
Essex, .....	0	0	23	0	0	0
Gloucester, .....	0	0	0	0	0	0
Hudson, .....	0	0	2	0	1	0
Hunterdon, .....	0	0	0	0	0	0
Mercer, .....	0	0	0	0	0	1
Middlesex, .....	0	0	3	0	0	0
Monmouth, .....	0	0	0	0	0	0
Morris, .....	0	0	0	0	0	0
Ocean, .....	0	0	0	0	0	0
Passaic, .....	0	0	7	0	3	2
Salem, .....	0	0	0	0	0	0
Somerset, .....	0	0	1	0	0	0
Sussex, .....	0	0	0	0	0	0
Union, .....	0	0	1	0	0	0
Warren, .....	0	0	6	0	0	0
State, .....	0	1	40	0	6	3

## CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR SMALLPOX AND TUBERCULOSIS.

COUNTIES.	SMALLPOX.				TUBERCULOSIS.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	2	0.02	0	0	156	1.81	96	61.53
Bergen, .....	23	0.10	0	0	220	0.99	137	62.27
Burlington, .....	7	0.08	0	0	119	1.41	95	79.83
Camden, .....	44	0.22	0	0	206	1.04	196	95.14
Cape May, .....	0	0	0	0	10	0.51	17	*
Cumberland, .....	0	0	0	0	60	0.96	62	*
Essex, .....	14	0.02	0	0	1799	2.37	698	38.79
Gloucester, .....	5	0.10	0	0	83	0.66	36	*
Hudson, .....	144	0.22	0	0	907	1.40	608	67.03
Hunterdon, .....	0	0	0	0	21	0.64	34	*
Mercer, .....	15	0.09	0	0	293	1.77	190	64.84
Middlesex, .....	0	0	0	0	213	1.25	134	62.91
Monmouth, .....	0	0	0	0	129	1.21	111	86.04
Morris, .....	1	0.01	0	0	103	1.22	107	*
Ocean, .....	0	0	0	0	11	0.49	19	*
Passaic, .....	0	0	0	0	426	1.60	205	48.12
Salem, .....	0	0	0	0	27	0.70	30	*
Somerset, .....	0	0	0	0	53	1.07	35	66.03
Sussex, .....	0	0	0	0	17	0.63	19	*
Union, .....	0	0	0	0	432	2.06	150	41.66
Warren, .....	0	0	0	0	20	0.44	32	*
State, .....	235	0.07	0	0	5255	1.61	3041	57.86

\*More deaths than cases reported.

## CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR TYPHOID FEVER AND WHOOPING COUGH.

COUNTIES.	TYPHOID FEVER.				WHOOPING COUGH.			
	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases per 1000 Pop.	Deaths.	Per Cent. Fatality.
Atlantic, .....	56	0.65	6	10.71	304	3.54	17	5.59
Bergen, .....	51	0.22	8	15.68	623	2.80	18	2.88
Burlington, .....	234	2.78	20	8.54	248	2.94	14	5.64
Camden, .....	89	0.44	8	8.98	170	0.85	30	17.64
Cape May, .....	14	0.72	1	7.14	65	3.34	5	7.69
Cumberland, .....	57	0.91	13	22.80	150	2.40	10	6.66
Essex, .....	107	0.15	12	11.21	4129	6.12	44	1.06
Gloucester, .....	56	1.12	4	7.14	194	3.88	22	11.34
Hudson, .....	98	0.15	22	22.44	872	0.57	58	15.39
Hunterdon, .....	5	0.15	1	20.00	18	0.54	1	5.53
Mercer, .....	170	1.02	10	5.88	146	0.88	17	11.64
Middlesex, .....	50	0.29	6	12.00	45	0.26	12	26.66
Monmouth, .....	47	0.44	8	17.02	367	3.44	11	2.96
Morris, .....	25	0.29	2	8.00	178	2.03	10	5.63
Ocean, .....	20	0.59	2	10.00	37	1.66	8	21.62
Passaic, .....	35	0.12	8	22.85	936	3.52	14	1.49
Salem, .....	30	0.73	4	13.33	25	0.65	7	28.00
Somerset, .....	24	0.48	5	20.83	20	0.40	6	30.00
Sussex, .....	3	0.12	0	0	1	0.04	2	*
Union, .....	35	0.16	3	8.57	908	4.33	16	1.76
Warren, .....	4	0.08	2	50.00	0	0	6	*
State, .....	1210	0.37	145	11.98	8034	2.74	328	3.67

\*More deaths than cases reported.

## CASE INCIDENCE AND INDICATED FATALITY RATES BY COUNTIES FOR 1921, FOR GONORRHEA, SYPHILIS, AND CHANCROID.

COUNTIES.	GONORRHEA.				SYPHILIS.				CHANCROID.	
	Cases.	Cases Per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases Per 1000 Pop.	Deaths.	Per Cent. Fatality.	Cases.	Cases Per 1000 Pop.
Atlantic, .....	206	2.40	0	0	215	2.50	15	6.97	3	0.03
Bergen, .....	63	0.28	1	1.58	91	0.41	10	10.98	1	0.004
Burlington, .....	84	0.99	1	1.10	49	0.58	10	20.40	17	20.40
Camden, .....	343	1.73	1	0.29	273	1.37	15	5.49	9	0.04
Cape May, .....	39	1.03	0	0	4	0.20	1	25.00	0	0
Cumberland, .....	58	0.93	2	3.44	32	0.51	4	12.50	0	0
Essex, .....	945	1.40	5	0.52	819	1.21	46	5.81	40	0.08
Gloucester, .....	29	0.58	1	3.44	36	0.72	1	2.77	1	0.02
Hudson, .....	254	0.30	0	0	238	0.86	31	13.02	6	0.009
Hunterdon, .....	12	0.36	0	0	71	2.16	3	4.22	1	0.03
Mercer, .....	211	1.27	0	0	392	2.37	15	3.82	4	0.09
Middlesex, .....	59	0.34	0	0	53	0.31	12	22.64	3	0.01
Monmouth, .....	67	0.62	0	0	130	1.27	5	3.84	2	0.01
Morris, .....	31	0.36	0	0	209	2.49	5	2.39	0	0
Ocean, .....	9	0.40	0	0	6	0.26	2	33.33	1	0.04
Passaic, .....	222	0.83	1	0.45	265	0.99	16	6.03	1	0.003
Salem, .....	25	0.63	0	0	70	1.83	3	4.28	2	0.05
Somerset, .....	15	0.30	0	0	19	0.38	2	10.52	0	0
Sussex, .....	3	0.12	0	0	3	0.12	0	0	2	0.008
Union, .....	80	0.38	0	0	176	0.84	11	6.25	2	0.02
Warren, .....	3	0.06	0	0	3	0.06	2	66.66	1	0.02
State, .....	2739	0.84	12	0.43	3154	0.97	209	6.62	96	0.03



## Report of the Bureau of Food and Drugs.

WALTER W. SCOFIELD, CHIEF.

The Bureau of Food and Drugs enforces the law relating to the production and distribution of milk and milk products (Chapter 78 of the Laws of 1914); the law controlling the pasteurization of milk and its products (Chapter 285 of the Laws of 1915); the law governing the operation of creameries (Chapter 139 of the Laws of 1906); the law governing the production of certified milk (Chapter 237 of the Laws of 1909 and its amendments); the slaughter-house act (Chapter 295 of the Laws of 1910); the cold storage act (Chapter 101 of the Laws of 1916); the law regulating the breaking and sale of eggs (Chapter 30 of the Laws of 1914); the methyl alcohol act (Chapter 286 of the Laws of 1912); the oleomargarine laws (Chapter 84 of the Laws of 1884 and its supplements), and the food and drugs act (Chapter 217 of the Laws of 1907 and its amendments and supplements).

*Milk Control.*—The most noticeable development in the protection afforded to milk supplies of the State during the past year has been in the increase in the use of the process of pasteurization. This change has been brought about by a clearer conception by the public of the need of a safe milk supply and of the advantages of pasteurization and also by the voluntary action of milk dealers.

In Mercer County two epidemics of typhoid fever in which eighty-four persons were affected were traced definitely to certain raw milk supplies. A large number of these cases occurred in the City of Trenton in persons supplied by two dealers supplying raw milk. The milk in each case was infected by a person having an unrecognized case of typhoid fever. The Health Officer of the City of Trenton saw the need for the protection of the consumer against epidemics of typhoid fever caused by raw milk

and immediately started a movement urging the pasteurization of milk supplies. There was a marked increase in the demand for pasteurized milk in that section of the State because of this agitation.

The actual prevention of the souring of milk by pasteurization results in the saving of much food and also in a substantial financial saving to the milk distributor. Complaints of consumers that milk sours shortly after delivery are reduced to a minimum where pasteurization is effectively performed. Many milk distributors have voluntarily installed pasteurizing equipment as these advantages have been realized.

Pasteurization must not be regarded as a substitute for dairy inspection or for cleanliness in milk production and handling as the laws of the State clearly prohibit the sale of filthy food and also the production of milk under insanitary conditions. However, no method other than pasteurization has yet been devised to protect the consumer from the possibility of contracting diseases which may be transmitted by milk. The prejudice which formerly existed in the minds of many with respect to the use of pasteurized milk is changing rapidly to a preference for a milk which is rendered safe.

The prevalence of bovine tuberculosis in the dairy animals of the State has been pointed out repeatedly by authorities on this subject. The New Jersey Department of Agriculture is attempting to control and eradicate tuberculosis in dairy animals by tuberculin testing followed by the removal and slaughter of animals which have reacted to the test. However, progress in this work is necessarily slow and the actual accomplishment of the tuberculin testing of all of the herds in the State will not be realized for many years because of the enormous amount of work and money involved. Health officials are justified, therefore, in the adoption and enforcement of ordinances providing for the pasteurization of all milk excepting milk produced by cows which are regularly subjected to the tuberculin test and which is produced under strict sanitary control.

It has been learned as a result of investigation that certain dairymen have held cows, which have reacted to the tuberculin test, for considerable periods of time on their dairy premises, and

that the milk from these cows has been sold for human consumption. The Food and Drugs Act classes as adulterated a food if it is the product of a diseased animal. The tuberculin test, if properly applied, is recognized as the most accurate means of diagnosing bovine tuberculosis. It is known that the milk as drawn from a tuberculous cow may contain the organisms of tuberculosis and that there may be sufficient number of tubercle bacilli present in the milk from one cow to infect the entire milk of a herd if the milk is mixed. There is no positive way in which to predict when the milk from a cow affected with tuberculosis will contain the organisms. Authorities are agreed that children may contract tuberculosis by the consumption of milk containing tubercle bacilli. The dangers to the health of children by the consumption of milk from cows affected with tuberculosis warrant strict enforcement of the law which prohibits the sale of the product of a diseased animal, and this Bureau is making every effort to prevent the sale of milk from such animals for human consumption.

*Dairy Inspection.*—Visits to dairy farms by trained inspectors are generally necessary if the conditions and methods of producing and handling milk on the farm are to be improved. Certain dairymen do not appreciate the necessity for cleanliness and care in handling milk. Permanent improvement in the equipment and methods used in milk production may be attained in many cases only by personal interchange of ideas between the dairyman and the trained inspector on the dairy premises.

This Bureau has recognized that care and cleanliness in milk production are most important. Clean milk may be produced in ordinary stables with inexpensive equipment. The recommendations which have been made by the Bureau during the year to milk producers as a result of inspections have been confined to those requirements which are necessary to secure a clean milk.

Co-operation in dairy inspection work between this Department and the local boards of health has been continued during the year. Marked improvement has resulted in the milk supplies of many municipalities because of the interest and work of local boards of health following these joint inspections. Duplication of inspection and confusion resulting from conflicting orders or

recommendations are eliminated when this system of inspection is followed. The interest which has developed among local boards of health with respect to milk control work has led to several requests for a proposed milk ordinance which would provide a satisfactory legal foundation when adopted by them. Such a milk ordinance has been prepared and has been furnished to several local boards of health. The more important provisions of this ordinance provide for the licensing of milk dealers and for the pasteurization of all milk excepting that produced by cows which have successfully passed a tuberculin test. The three classes of milk specified in this ordinance are "Certified," "Raw" and "Pasteurized." These classes of milk are not divided into grades and no bacterial limits are fixed.

During the year 2,193 inspections were made of dairies supplying milk to the municipalities of this State.

*Creameries and Milk Pasteurizing Plants.*—The successful pasteurization of milk depends upon strict attention to several details of operation of milk pasteurizing plants. The milk must be heated to a temperature of 142 to 145 degrees Fahrenheit and held at such temperature for a period of not less than thirty consecutive minutes, then cooled to a temperature of 50 degrees Fahrenheit or below immediately after pasteurization; adequate washing and sterilizing equipment must be provided for the cleansing of containers and equipment; the plant and equipment must be thoroughly cleansed each day; the milk must be protected from contamination by flies, dust and dirt. Records of the time and temperature to which milk is heated must be dated and filed; bottle caps must be protected from contamination by dust and dirt and employees must be cleanly in handling milk.

The continued supervision exercised by this Department during the past few years, together with the desire of most of the owners to co-operate in the adoption of modern methods, has resulted in the operation of the creameries and pasteurizing plants in a sanitary and efficient manner. In general, the deviations from the regulations governing the operation of creameries and milk pasteurization plants have been found to be of a minor character and have been corrected immediately by the operator of the plant. It is believed that the careful supervision of milk pas-

teurizing plants has accomplished greater results in safeguarding the milk supply than any other branch of milk control work.

During the year 615 inspections have been made of the 183 creameries and milk pasteurizing plants in operation in this State.

*Certified Milk.*—Investigations made by representatives of this Department previous to the adoption of the chapter of the State Sanitary Code on Certified Milk, showed that there was a tendency on the part of medical milk commissions, producers and distributors to evade responsibility for deviations from the original principles underlying the production and distribution of certified milk, because these original principles were not mandatory. The enactment of Chapter 11 of the State Sanitary Code fixed minimum requirements for the production and distribution of certified milk which are mandatory upon medical commissions certifying to milk intended for sale in this State.

During the past year inspections have been made of every dairy where certified milk was produced for sale in this State. In general, the medical milk commissions have enforced the requirements for the production of this grade of milk in a satisfactory manner. The application of one medical milk commission located outside of New Jersey for a permit to certify to milk intended for sale in this State was refused.

It is not the duty of the State Department of Health to certify to milk or perform the work of medical milk commissions. However, it is the duty of the Department to require that certified milk be produced and sold in conformity with the provisions of the law and the regulations governing certified milk. An occasional investigation by a State official tends to prevent the dairymen and the experts of the commissions from becoming careless in their supervision. The Bureau intends to continue the investigations of certified milk during the coming year, as it is believed that this grade of milk should be of uniform high standard of safety and quality.

*Milk Sold Under Special Designations.*—The demand for milk which is superior in quality to the milk supply in general or milk which has been produced under special sanitary conditions and by proper methods is a great stimulus to the dairy industry. Certain dairymen in the State have spent large sums of money

in acquiring herds of cattle of special breeds or in the purchase of special equipment or in adherence to methods which will result in a superior milk. The production of such milks should be encouraged. On the other hand, opportunity is presented to the unscrupulous milk dealer to deceive the public by making false claims regarding the quality of milk or the conditions under which it is produced, because milk is a food which cannot be judged accurately by the consumer.

Such deception has been fostered in many municipalities by the adoption of milk ordinances which provide grading systems for milk into classes such as "Grade A" and "Grade B" based upon differences in the bacterial content and in the dairy score. It has been shown repeatedly that there was no demonstrable difference between "Grade A" and "Grade B" milks when subjected to laboratory examinations, and only technical differences when the general conditions on the farms on which the milk was produced, were compared. It has been proved that dealers have bottled milk from one batch and have sold it for "Grade A" or "Grade B" at different prices according to the demands of consumers. Many municipalities, where such ordinances have been enacted, have failed to provide facilities to enforce the provisions of such complex ordinances, and in these places such designations as "Grade A" and "Grade B" on the containers have little or no meaning.

The Food and Drugs Act of this State classes food as misbranded if it is labeled or branded so as to mislead or deceive the purchaser. Investigations have been made of the production and sale of milks for which special claims were made. In the case of definite statements regarding the tuberculin testing of the cows or the breed of cattle producing the milk it has been possible to check up the claims and to correct violations which have been discovered. The use of statements or symbols which have indefinite meanings, such as the words "Nursery," "Special," "Selected," "Baby" or the symbols "A," "AA," "AAA" or "XXX," presents a more difficult problem, as it is difficult to prove misbranding in case no definite claim is made. Investigations made of the production of milks sold under such wording or symbols demonstrated that these milks were no higher in

quality generally than the average milk sold by the dealers. Nevertheless, the printing on the caps, together with the advanced price at which the milk is sold, leads the consumers to believe that a milk superior to the general average is being purchased.

Such unfair practices finally have a deterrent effect upon the milk industry as the confidence of the public is destroyed when the facts become known. The deception may have a direct bearing upon the health of the individual in those cases where a certain quality of milk is required in feeding infants or invalids. The adoption of the proposed milk ordinance which has been prepared by this Department for the use of local boards of health would prevent the use of indefinite statements, devices or symbols on bottle caps or labels of milk containers in those municipalities where this ordinance is enacted and enforced.

*Physical Examinations of Dairy Animals.*—Section 5, Chapter 78 of the Laws of 1914, requires that each dairyman engaged in the production of milk for sale, shall submit a certificate to the Department of Health of the State of New Jersey, at least once each year, stating the results of the examination of the cows, signed by a duly licensed veterinarian, with reference to the existence of any disease with which the animals may be affected. A compilation of the data contained in reports of physical examinations of dairy animals which were received during the period from July 1, 1920, to January 1, 1921, shows that the number of animals examined was 25,146, and 48 were reported as suspected of being affected with tuberculosis. From January 1, 1921, to July 1, 1921, there were 54,091 animals examined and 116 were suspected of being affected with tuberculosis. During the period from July 1, 1921, to January 1, 1922, the number of animals examined was 30,227 and 119 were reported as suspected of being affected with tuberculosis. During the time from January 1, 1922, to July 1, 1922, there were 48,725 animals examined and 135 were suspected of being affected with tuberculosis. Information regarding suspected cases of tuberculosis in dairy animals, received by this Department, is reported to the Bureau of Animal Industry, New Jersey Department of Agriculture.

*Meat Inspection.*—The following table shows the amounts and kinds of meats which have been inspected during the year:

CARCASSES.			PARTS OF CARCASSES.		
	<i>Passed.</i>	<i>Condemned.</i>		<i>Passed lbs.</i>	<i>Condemned lbs.</i>
Beef, .....	658	5	Beef, .....	4,850	1,050
Hogs, .....	172	5	Pork, .....	2,230	650
Calves, .....	512	6	Veal, .....	910	54
Sheep, .....	261	.....	Lamb, .....	200	.....
Totals, .	1,603	16	Totals, .	8,190	1,754

The above table represents inspections made in connection with post-mortem investigations of dairy cattle slaughtered as a result of physical examinations and in conjunction with slaughter-house inspection work. It also represents special investigations of complaints concerning the sale of meat alleged to be unfit for food purposes. With the small force of inspectors available to carry on food control work it is not possible to carry on State-wide meat inspection service. It is of interest to note, however, that with the co-operation of municipal inspectors and representatives of the State and Federal Bureaus of Animal Industry, a greatly increased number of animals are being slaughtered under inspection.

*Slaughter-House Inspection.*—Chapter 295 of the Laws of 1910 requires that the operators of slaughter-houses in this State must obtain a license from the State Department of Health. The law also empowers the Department to enact regulations for the control of such places. One of the regulations adopted by the Department provides that the approval of the site of a proposed slaughter-house must be obtained from the local board of health of the municipality where the slaughter-house is to be located. This rule requires the submission of the approval in writing to this Department before application for a license is considered. By following this policy the local boards of health are enabled

to pass upon the site of proposed slaughter-houses and to prevent the erection of such establishments in districts where they are liable to become nuisances.

During the year 1,082 inspections were made of the slaughter-houses located in this State by representatives of the Bureau.

*Cold Storage.*—Representatives of the Bureau have visited the cold storage warehouses located in this State during the year for the purpose of enforcing the provisions of Chapter 101 of the Laws of 1916. As a result of these investigations it was found that the cold storage rooms have been maintained at temperatures suitable for the preservation of the foods stored therein. It was also found that the storage rooms have been maintained in a clean and sanitary manner.

The amounts of foodstuffs held in cold storage have gradually decreased since the close of the war to a general average of normal business conditions. It has been the policy of the Department to require that foodstuffs be removed from cold storage within the period of twelve months as required by the Cold Storage Act, except in cases when requests have been received for extensions of time for the storage of foods which were in good condition. These requests have been few in number and the time granted by the Department for the further storage of such foods has been limited to very short periods. A detailed report of the extensions granted for the storage of foods longer than twelve months will be found in the report of the Director.

The following table shows the kinds and amounts of foods held in cold storage warehouses in this State on the last day of each month during the year:

## DEPARTMENT OF HEALTH.

SUMMARY OF THE KINDS AND AMOUNTS OF FOODSTUFFS HELD IN COLD STORAGE IN NEW JERSEY ON THE LAST DAY OF EACH MONTH DURING THE YEAR, FROM JULY 1, 1921, TO JUNE 30, 1922.

ARTICLES.	July, 1921.	Aug., 1921.	Sept., 1921.	Oct., 1921.	Nov., 1921.	Dec., 1921.	Jan., 1922.	Feb., 1922.	Mar., 1922.	April, 1922.	May, 1922.	June, 1922.
Eggs—cases, .....	497,312	480,373	439,500	353,384	210,817	99,350	33,740	281	54,093	388,782	618,908	731,746
Eggs, broken—lbs., .....	1,137,997	1,305,717	1,434,807	1,317,120	1,216,463	1,253,230	996,073	839,000	669,462	696,267	884,237	1,108,862
Cheese—lbs., .....	437,472	484,070	474,582	608,572	727,210	580,800	391,067	105,691	140,221	101,363	104,851	220,412
Butter—lbs., .....	3,776,468	3,917,008	3,315,710	3,341,704	2,638,680	1,671,281	1,096,381	577,049	290,322	192,487	156,041	1,823,271
Poultry—lbs., .....	1,127,383	1,028,949	1,327,828	1,917,108	3,702,868	7,388,697	8,571,059	7,159,017	3,618,227	3,920,132	2,947,158	2,244,800
Meats, fresh—lbs., .....	8,814,730	5,765,400	4,035,604	3,221,039	3,720,704	3,701,164	3,163,182	2,806,068	3,241,227	3,398,101	3,883,499	3,861,246
Fish, fresh—lbs., .....	2,393,619	2,613,690	2,853,001	3,133,806	3,447,563	2,695,589	1,967,991	1,139,748	643,091	492,538	411,773	420,855
Milk and milk products—lbs., .....	1,165,416	1,156,776	1,088,139	915,450	196,843	580,782	357,810	346,400	77,900	122,159	80,000	118,415
Edible fats and oils—lbs., .....	86,023	61,815	28,322	2,011,512	2,043,223	1,071,327	1,377,231	6,859,771	56,450	80,021	390,338	414,162
Grain—lbs., .....				280	970	270						
Miscellaneous articles—lbs., .....	61,298	39,472	38,623	306,845	717,450	593,246	211,152	270,919	288,546	192,392	100,132	45,998

## REPORT OF BUREAU OF FOOD AND DRUGS. 77

*Canning Factories.*—The usual survey of the canning industry in this State was made in company with representatives of the Bureau of Chemistry, United States Department of Agriculture. During the year 127 inspections were made of the canning factories. These establishments were found to be operated generally in compliance with the regulations governing such places.

The economic conditions were unfavorable for operation on a large scale during the last canning season. Many factories were not operated, while others operated only to a limited extent.

The Bureau co-operated with the Bureau of Chemistry, United States Department of Agriculture, in the investigation of certain lots of canned spinach which had caused fatal cases of botulism poisoning in Indiana. Lists of dealers and their addresses to whom lots of the suspected canned spinach had been shipped in this State were furnished by the Bureau of Chemistry to this Department. Representatives of the Bureau visited each place and examined each can of the suspected spinach on hand for the purpose of ascertaining whether or not spoilage was evident. We were unable to discover any cases of illness caused by the consumption of the spinach in question. Six cans showing evidences of spoilage were found in the possession of a wholesale grocer and these cans were submitted to the Bureau of Chemistry for examination. A report has been received from the Bureau of Chemistry that *Bacillus Botulinus* was not detected in these cans. The spinach in question was packed in a western State.

*Non-Alcoholic Beverages.*—The enactment of legislation prohibiting the manufacture and sale of alcoholic beverages has increased the demand for non-alcoholic beverages. A large number of new establishments have been opened to supply this demand. Inspections to determine the conditions under which non-alcoholic beverages have been prepared have been made in connection with the collection of samples of the drinks for examination. Local boards of health have been requested to detail a representative to accompany our inspector in these investigations. Letters containing recommendations or orders for changes in equipment have been sent to persons operating establishments

and copies of these notices have been furnished to local boards of health, with the request that reinspections be made by them.

Certain manufacturers of non-alcoholic beverages have continued to use saccharin in the preparation of beverages, in violation of the laws of this State. It has been found necessary to bring legal action against such dealers for the collection of penalties for such violations.

Many of the operators of establishments where non-alcoholic beverages are prepared have little or no knowledge of the character of the water or other materials used in the preparation of beverages and do not appreciate the necessity for cleanliness in the preparation of non-alcoholic beverages. It seems necessary to secure legislation requiring all persons operating or intending to operate establishments where non-alcoholic beverages are prepared and bottled to obtain a license from this Department. It is believed that the licensing of such establishments will result in improved sanitary conditions and will also assist materially in the supervision of the same.

*Sanitary Inspection of Food Establishments.*—The following table shows the number and kinds of establishments where sanitary inspections have been made during the year:

Dairies, .....	2,193
Creameries, .....	615
Milk depots, .....	267
Slaughter-houses, .....	1,082
Cold storage warehouses, .....	240
Bottling establishments, .....	67
Canning factories, .....	127
Grocery stores, .....	34
Meat markets, .....	28
Miscellaneous inspections, .....	13

*Chemical Examinations of Milk Samples.*—During the year 2,818 samples of milk and cream were collected for analysis. Of this number, 284 samples were found to differ from the legal standard. The samples which were found to differ from the legal standard may be divided into the following classes:

Milk deficient in total solids, .....	258
Milk containing added water, .....	15
Cream deficient in fat, .....	11
Total, .....	284

The following table shows the number and kinds of samples of food other than milk and cream collected during the year:

<i>Article.</i>	<i>Total</i>	<i>Above Standard.</i>	<i>Below Standard.</i>
Baking powder, .....	21	12	9
Butter, .....	91	84	7
Cider, .....	1	1	..
Cocoa, .....	26	25	1
Cottonseed oil, .....	1	1	..
Condensed milk, .....	1	1	..
Dates, .....	1	1	..
Egg powder, .....	2	2	..
Fruits, dried, .....	36	11	25
Hamburg steak, .....	88	72	16
Honey, .....	1	1	..
Lard, .....	1	1	..
Maple syrup, .....	13	10	3
Olive oil, .....	38	33	5
Orange extract, .....	1	1	..
Pork sausage, .....	22	22	..
Soft drinks, .....	278	165	113
Spinach, canned, .....	9	9	..
Strawberry extract, .....	1	1	..
Tomato products, .....	39	25	14
Vanilla extract, .....	4	4	..
Vinegar, .....	22	13	9
Miscellaneous foods, .....	8	5	3
Totals, .....	705	500	205

The following table shows the number and kinds of drugs collected, which were purchased under names recognized by the 9th Revision of the United States Pharmacopœia:

<i>Article.</i>	<i>Total.</i>	<i>Above Standard.</i>	<i>Below Standard.</i>
Camphorated oil, .....	24	18	6
Distilled extract of witch hazel, .....	8	8	..
Solution of calcium hydroxide, .....	32	30	2
Solution of hydrogen dioxide, .....	20	8	12
Solution of magnesium citrate, .....	17	11	6
Spirit of camphor, .....	1	1	..
Spirit of peppermint, .....	27	20	7
Tincture of ferric chloride, .....	30	22	8
Tincture of iodine, .....	46	37	9
Tincture of nux vomica, .....	24	11	13
Totals, .....	229	166	63

The following table shows the kinds and number of samples of drugs collected under names other than those specified in the United States Pharmacopœia:

<i>Article.</i>	<i>Total.</i>	<i>Above Standard.</i>	<i>Below Standard.</i>
Aspirin tablets, .....	10	5	5
Cough and cold remedies, .....	70	38	32
Hair tonic, .....	27	26	1
Patent medicines, .....	3	3	..
Toilet waters, .....	10	10	..
Totals, .....	120	82	38

*Co-operation.*—The Bureau has co-operated with the Bureau of Chemistry, United States Department of Agriculture, in the collection of samples and evidence in the inter-state shipment of food and drugs. We have also co-operated with the various Bureaus of this Department, the Department of Agriculture of the State of New Jersey and with various local boards of health in matters pertaining to food control work.

## Report of George W. McGuire.

SPECIAL AGENT IN CHARGE OF ICE CREAM FACTORY INSPECTION.

There were 465 licensed ice cream factories operating in the State during the fiscal year ending June 30, 1922, being 6 less than the previous year. Of these, 242 factories were located above ground and 223 in cellars. In the year 1920 there were 241 above ground and 234 in cellars. As stated in a previous report, it has been the aim of the Department to do away, as far as possible, with cellar factories on account of the poor ventilation and light obtainable and also to avoid street dust seeping through the window gratings and settling on apparatus and the other equipment. Many cellars were also found infested with rodents and vermin. During the past two years natural light and proper ventilation and rat-proof surfaces have been demanded by the Department. This policy should be pursued until all the underground factories are eliminated.

Further progress is shown as a result of inspection in the matter of proper facilities for cleaning apparatus and containers. In 1920, out of the 475 ice cream factories, 275 or 58% had a sufficient supply of hot water with which to wash their cans and utensils. Since that year no new licenses have been granted until such facilities have been installed, and in the year 1921, out of 471 factories, 402 of them, or 85% of all the licensed ice cream factories in the State, were equipped with running hot and cold water. This is a very good showing when it is remembered that in some instances there is no public water supply and manufacturers are compelled to heat the water for washing purposes in a vessel over the fire.

Another improvement in the care of containers and utensils is shown by the number of plants that have installed steam boilers. In 1920, out of 475 factories, 48 were using steam as a final cleaning of apparatus and containers. Last year the records show that of the 465 factories 173 have steam boilers.



The phenomenal increase in the volume of ice cream manufactured in our State during the war and for one year thereafter seems to have reached its limit. Last year there were 7,801,000 gallons made, as against 7,162,210 gallons for this year, showing a decrease for the year of 638,790 gallons. This decrease, however, may be accounted for by the fact that there are 15 manufacturers located outside of the State who are shipping and selling their product to the people of New Jersey. There is plenty of competition among them, their agents being very active in pushing their product.

The bill standardizing ice cream and requiring persons, firms or corporations located outside of the State of New Jersey to first obtain a permit from the Director of Health before bringing any ice cream or other frozen product resembling ice cream into the State for sale or distribution, was passed by the Legislature and approved February 20, 1922. This act is a supplement to the Food and Drug Act which was passed in 1901, Section 30 of which makes it the duty of local boards of health to enforce its provisions.

In order to secure the active co-operation of municipal boards of health a conference comprising representatives of 14 local boards was held at the State House on May 25, 1922. The new law in all its parts was discussed and the responsibility for its enforcement was recognized by those present. A policy for its enforcement by local and State authorities was adopted, which, if carried out will insure the purity of ice cream in every locality in the State. As most of the ice cream is sold in the locality in which it is manufactured, control of the sanitary conditions under which the manufacture is carried on and the composition of the product can also be more readily handled by local health officials. At this conference Mr. FitzRandolph, Assistant Director, announced that he had prepared for distribution a typewritten copy of the methods of analysis which in the interest of uniformity could be used in each municipal laboratory.

The several local boards of the State, we are informed, are prosecuting the work of inspection under agreement as stated above and the State Department of Health should soon have knowledge of conditions existing in each of the municipalities participating in the conference.

During the year there were analyzed in the Laboratory of Hygiene 94 samples of ice cream collected in the following places:

Long Branch, .....	6
Trenton, .....	4
Rahway, .....	2
Florence, .....	1
Union Hill, .....	6
Woodbridge, .....	1
Roosevelt, .....	1
Jersey City, .....	74

These samples were all collected before the present ice cream law became effective.

The average fat content of the 74 samples collected in Jersey City averaged 9.29% butter fat. Those below the statutory requirement of 8% analyzed 6.2%, 7.85%, 7.8%, 7.3% and 5.9%. In the 21 samples collected in the other towns only 2 were below standard, viz: Long Branch 3.86%, Florence 7.2%. The manufacturers of the low samples have been notified of the new law and will no doubt conform to its provisions in the future.

Thus far sixteen ice cream manufacturers have applied for permits to bring their products into the State of New Jersey. The plants have all been inspected by a representative of this Department, and with the exception of two of the concerns the factories all meet with the law and the regulations of our State, in regard to sanitary requirements. The two exceptions are plants in which the methods used in handling the product were unsatisfactory and the proprietors were notified to make structural changes and to employ better methods in order to comply with our requirements. This they have expressed a willingness to do.

The following is a list of the above-named foreign factories:

Supplee-Wills Jones Milk Co., 1523 North 26th St., Philadelphia, Pa.

J. M. Horton Ice Cream Co., 205 East 24th St., New York City.

Breyer Ice Cream Co., 8th and Cumberland Sts., Philadelphia, Pa.

Colonial Ice Cream Co., Philadelphia, Pa.

Crane Ice Cream Co., 256-270 S. 23rd St., Philadelphia, Pa.

Abbott's Alderney Dairies, Inc., 216 Lombard St., Philadelphia, Pa.

Shevers Ice Cream Co., 617-623 Eleventh Ave., New York City.

Wood Ice Cream Co., Allentown, Pa.

Abel's, 243 Northampton St., Easton, Pa.

M. & G. Company, Allentown, Pa.

Rosedale Ice Cream Co., 780 So. Swanson St., Philadelphia, Pa.

Bittersweet Products Corporation, Yonkers, N. Y.

Meyer Dairy Company, Bethlehem, Pa.

Polar Products Co., 607-11 West 48th St., New York City.

Easton Sanitary Milk Co., Easton, Pa.

Smith & Clark Co., Scranton, Pa., & Middletown, N. Y.

During the past year, and more especially since the beginning of the warm weather, a number of complaints have reached us regarding alleged sickness among children as a result of eating ice cream. In each case the complaint has been investigated and the trouble traced to retail stores, whose inadequate facilities and careless methods in handling this delicate product seem to have been the cause of the trouble. One of the objects of the recent conference of the fourteen health officers referred to above was to impress upon them the duty of greater surveillance of these places and more definite instructions to the sellers of the product regarding cleanliness and care of their containers and utensils. So far as we have observed, the Newark city officials have systematically supervised these small and large retail stores and thus far no complaints have reached us of alleged sickness from eating ice cream from this city. There is, however, a duty incumbent upon the State Department of Health, which has as yet been unfulfilled, and I respectfully recommend that the Department prepare a warning circular to be sent to each local board in the State covering the storage, handling and sale of ice cream and emphasizing cleanliness in every detail. I also suggest that such a circular in addition to being published in the Department bulletin and sent to local health boards be given to the newspapers for publication, so that the public may be on their guard against unclean methods in these places and the consumer thereby better protected.

## Report of the Bureau of Engineering.

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

During the year the Bureau of Sanitary Engineering has continued in its work of regulation, development and investigation of water supplies, stream pollution and sewerage systems; public health work to aid in the exercise of the police and advisory powers of the Department.

The work has been carried on under the same divisions and with the same number of employees as described in the preceding annual report. In addition to the regular office work, which included the setting up of standards in methods of procedure for the additional duties assigned to the Bureau within the last year, 19 applicants for licenses for water and sewage plant operators were examined; the following number of plans submitted for action were examined: 61 plans for sewer extensions for 25 corporations and municipalities; 26 plans for sewerage systems and sewage treatment plants for 25 individuals, corporations or municipalities; 4 plans for industrial waste treatment plants for corporations; 2 plans for experimental waste treatment plants, and 5 plans for water supply systems and works for municipalities.

The field work included 146 routine and 758 special field examinations of existing systems, including the collection of samples. There were 66 special investigations relating to nuisances caused by stream pollution; 27 investigations of violations of the State Sanitary Code; 24 investigations of the pollution of streams used for potable water supplies; 8 investigations of applications for the establishment of manufacturing plants upon potable watersheds, together with the collection of legal evidence for cases referred to the Attorney-General for action. There were also 53 water samples collected for certification upon public conveyances engaged in interstate traffic.

In the preparation of past reports considerable time and money were expended to prepare for those interested in this branch of public health work permanent records relative to the construction and operation of water, sewage and industrial waste treatment plants, as well as information upon those sheds the waters of which are used for potable purposes. These articles were illustrated by maps, charts and tabulations. The material, after passing from the Department, was, however, so censured that as a result no text of the above character is included in this report.

## Report of the Laboratory of Hygiene.

R. B. FITZ-RANDOLPH, CHIEF.

This report covers the operations of the bacteriological laboratory, the food and drug laboratory, the water and sewage laboratory and the laboratory for shellfish investigations for the fiscal year ending June 30, 1922. The report of the work of the sewage substation, which is operated jointly by the State Department of Health and the Agricultural Experiment Station will appear in the report of the Experiment Station.

It is again necessary to call attention to the inadequacy of the quarters in which the laboratory is located in the State House. Each year the work increases and each year the space available for laboratory purposes becomes less adequate. It is now impossible to carry on certain lines of work for which there is a considerable demand because there is no room available. It is therefore recommended that the next Legislature be requested to provide sufficient funds to enable a suitable laboratory building to be constructed.

Each year the number of municipal laboratories engaging in the examination of specimens from suspected cases of communicable diseases is increasing. The number of private laboratories doing this kind of work is also rapidly increasing. Regulation 41 of the State Sanitary Code provides for the inspection and approval of laboratories by this Department, but it has not yet been possible to undertake this inspection because no one has been available to do the work. The numerous complaints received by the Department regarding the work of some of the private laboratories indicates that the inspection of these laboratories should not be longer delayed. It is therefore recommended that a bacteriologist be employed to make these inspections. It is also recommended that the Department consider the advisability of securing the enactment of a law providing that

laboratories examining specimens from certain communicable diseases be required to secure licenses and that they be also required to send copies of the reports showing the results of the examination of such specimens to the health officers of the municipalities in which the patients are located. At the present time certain physicians who are unwilling to report cases of communicable diseases make use of these private laboratories in order to prevent the discovery of their cases.

During the year the laboratory has been put to considerable expense and inconvenience because the Van Ness law requires the Department to analyze samples of liquor seized by the courts and to distribute such liquor as is suitable for medicinal use to the State institutions and free hospitals. This is not a proper function of a health department. The duty of distributing supplies, whether of liquor or other drugs, should not be imposed on this Department. It is recommended that the section of the Van Ness act requiring that this be done be repealed.

*Bacteriological Laboratory*, John V. Mulcahy, Senior Bacteriologist.—The bacteriological division examines specimens submitted by other bureaus of the Department, by other branches of the State government, by local boards of health and physicians throughout the State. These specimens are collected from suspected cases of certain communicable diseases. The number and kind of specimens examined are shown in the following table:

Diphtheria, .....	13,289	Gonorrhoea, .....	2,285
Tuberculosis, .....	7,441	Syphilis, .....	13,365
Typhoid fever, .....	2,514	Miscellaneous diseases, .....	2,699
Malaria, .....	260		
Total, .....			41,853

Noticeable increases over previous years are shown in specimens of blood and spinal fluid for syphilis by means of the Wassermann reaction and stained smears for the presence of gonococci. For the first time the number of Wassermann examinations exceed those made for the presence of diphtheria bacilli, which latter vary, however, a great deal from year to year, depending on the prevalence of this disease.

The other routine examinations vary less, although a larger number of specimens for tuberculosis have been examined than in previous years.

The greatest proportional increase has been in specimens of feces and urine from persons suspected of harboring the typhoid bacillus in their excreta, both from well persons from those convalescing from typhoid fever.

The large number of positives, 202 out of 1,820, is the most noteworthy feature of these examinations, and emphasizes the importance of requiring stool and urine examinations from persons who have recovered from typhoid fever until negative results are obtained, especially from those who are accustomed to handling food products used by other persons. The greater number of these specimens were received from persons infected during the Jacobstown typhoid epidemic. A large number of these resided on premises producing milk for distribution, all of whom were required to show three negative stool and urine reports before engaging in the handling of milk.

During the year a number of positive results have been obtained from typhoid carriers responsible for typhoid infection of a person using milk from the dairies upon which they were employed, and in several instances cases occurring in the same household have been found to be due to the presence in the family of a typhoid carrier.

Undoubtedly the importance of protecting the community from typhoid infection due to typhoid carriers will become more apparent and should result in the more frequent use of the laboratory for the examination of specimens from all recovered cases of typhoid fever before release, and the submission of specimens from every individual on any premises where the origin of typhoid infection is suspected.

This work will, therefore, increase rapidly in the future. It is time-consuming and difficult and is carried on at present under unfavorable conditions because of lack of suitable laboratory space.

Outfits for the collection and transmission of specimens for bacteriological and serological examinations are kept in stock in a large number of repositories scattered throughout the State

and by local boards of health, and are sent to physicians who are not conveniently located near these places. This past year 50,827 such outfits have been distributed.

Another surprising feature is that of 87 specimens of animals' heads that have been received in good condition to be examined for rabies, 46 or more than 50 per cent. showed the presence of Negri bodies, the largest proportion of positive results which the laboratory records show. These cases came from ten counties of the State, as shown in Table VI. It is evident that rabies is increasing in this State.

While there has been an improvement in the condition of most of these specimens when received at the laboratory, 18 of them were so badly decomposed that it was not possible to make a satisfactory microscopical examination of the brain, and a delay of four to five weeks has been occasioned because of the necessity of waiting for the result of an animal inoculation before a final report could be made. Of these 18 specimens several were so badly decomposed that the brain substance had become liquified and it was not possible to make any examination. To overcome this condition, especially in cases where persons have been bitten by a suspected rabid dog, it is strongly advised that the head of the animal be sent to the laboratory by messenger, as these specimens cannot be sent by mail and the express service is so slow and uncertain that no dependence can be placed on it.

A new method of prevention of rabies in dogs has been recently devised which promises to assist in the eradication of this disease. One subcutaneous injection of a fixed virus rabbit brain emulsion is administered to dogs. It is believed that this treatment confers immunity on the animal so treated for at least a year. Complete information regarding this prophylactic treatment may be obtained from this Department, or from the manufacturers of the product.

The following tables give a summary by months of the specimens examined from July 1, 1921, to June 30, 1922, inclusive:

TABLE I.

MONTH.	*DIPHTHERIA*						TUBERCULOSIS.					
	Primary.			Secondary.			Primary.			Secondary.		
	P	N <sup>2</sup>	U <sup>3</sup>	P	N	U	P	N	U	P	N	U
July.....	48	167	12	88	163	11	121	329	3	45	90	2
August.....	63	226	8	51	152	7	88	336	4	30	85	1
September.....	65	230	12	35	113	.....	76	338	2	25	83	1
October.....	175	1845	29	123	839	8	91	347	2	85	130	2
November.....	103	823	51	324	957	22	76	377	4	62	94	3
December.....	141	796	23	289	640	16	86	390	1	32	72	.....
January.....	166	676	23	141	389	15	76	339	1	33	93	1
February.....	75	363	15	206	577	7	89	378	8	31	112	1
March.....	71	393	11	103	265	16	109	475	2	62	98	1
April.....	61	283	12	59	215	6	84	423	2	36	123	1
May.....	59	389	20	109	240	6	130	469	3	66	153	.....
June.....	42	217	4	64	204	9	100	349	5	37	122	2
Total.....	1101	6288	220	1632	3925	123	1130	4460	37	544	1255	15

\* During the year 29 tests were made for the virulence of the diphtheria bacillus.

(1) P=Positive.

(2) N=Negative.

(3) U=Unsatisfactory.

TABLE I—(Continued).

MONTH.	TYPHOID FEVER.						MALARIA.					
	Primary.			Secondary.			Primary.			Secondary.		
	P	N	U	P	N	U	P	N	U	P	N	U
July.....	22	141	8	15	19	1	2	27	1	.....	2	.....
August.....	38	269	45	32	37	7	1	46	2	.....	2	.....
September.....	103	296	17	33	39	4	1	23	4	.....	1	.....
October.....	79	183	13	29	16	3	.....	18	1	.....	.....	.....
November.....	28	95	6	3	19	2	.....	9	2	.....	.....	.....
December.....	17	57	4	4	10	1	.....	13	1	1	1	.....
January.....	7	65	2	2	.....	.....	6	1	.....	.....	.....	1
February.....	8	67	3	2	4	.....	.....	16	.....	.....	.....	.....
March.....	5	73	3	2	7	.....	.....	.....	.....	.....	.....	.....
April.....	13	154	7	2	14	.....	.....	14	2	1	1	.....
May.....	6	157	4	.....	12	3	.....	18	.....	.....	.....	.....
June.....	13	157	5	6	8	5	.....	31	1	.....	1	.....
Total.....	404	1677	117	121	169	25	4	228	15	2	10	1

TABLE II.

MONTH.	GONORRHOEA.						MISCELLANEOUS.					
	Primary.			Secondary.			Primary.			Secondary.		
	P	N	U	P	N	U	P	N	U	P	N	U
July, .....	31	99	6	7	24	1	28	60	10	17	5	4
August, .....	50	145	10	6	20		33	147	14	8	34	
September, .....	72	83	4	9	29	2	38	226	13	21	84	7
October, .....	53	129	16	3	35	4	53	388	7	50	176	4
November, .....	58	109	7	8	31	2	39	114	4	25	132	
December, .....	43	88	5	10	38	3	48	35	5	23	19	
January, .....	31	101	12	9	34	7	47	33	4	12	9	
February, .....	27	65	11	4	27	3	45	60	11	9	8	
March, .....	33	87	15	3	26	6	57	59	2	6	3	
April, .....	31	71	16	7	25	4	35	38	3	11	14	
May, .....	45	88	22	7	23	6	42	44	9	12	7	4
June, .....	35	97	25	6	29	9	37	45	4	23	5	3
Total, .....	487	1164	159	81	347	47	525	1358	81	217	496	22

TABLE III.

MONTH.	COMPLEMENT FIXATION FOR SYPHILIS. (Guinea pig heart antigen.)													
	Primary.						Secondary.							
	4+	3+	2+	+	±	-	U	4+	3+	2+	+	±	-	U
July, .....	83	4	9	5	3	437	123	34	6	11	3	6	100	36
August, .....	101	1	14	4	6	457	108	101	6	23	9	10	133	29
September, .....	83	3	10	2	6	625	93	44	3	16	2	2	164	28
October, .....	73	6	6	4	2	631	64	68	3	17	3	3	145	24
November, .....	120	5	10	2	5	732	44	78	7	33	6	9	158	13
December, .....	80	3	15	1	2	630	21	40	4	18	5	2	139	7
January, .....	81	4	27	1	2	546	58	68	5	26	5	5	180	24
February, .....	66	6	17	3	3	607	63	62	3	26	3	2	152	11
March, .....	93	8	27	4	3	818	65	33	8	19	7	4	221	13
April, .....	82	8	17	3	2	794	61	61	4	27	6	6	212	27
May, .....	94	1	15		4	768	58	36	3	17	2	1	179	13
June, .....	78	5	7	6	3	727	94	80	5	13	5	7	223	21
Total, .....	1049	54	174	35	43	7750	852	705	54	266	56	37	2026	244

TABLE III—(Continued).

MONTH.	COMPLEMENT FIXATION FOR SYPHILIS. (Cholesterinized Antigen.)													
	Primary.							Secondary.						
	4+	3+	2+	+	±	-	U	4+	3+	2+	+	±	-	U
July, .....	110	8	14	1		408	123	57	6	13	3		81	36
August, .....	133	5	13	1		431	108	172	4	12	2		112	23
September, .....	120	5	5	4		595	93	88	6	15	4		118	26
October, .....	104	3	4	3		634	64	98	9	11	2		119	24
November, .....	167	6	12			659	44	161	11	16	3		100	13
December, .....	110	4	6			529	21	72	5	14	4		109	7
January, .....	126	3	8			624	58	127	3	22	7		126	24
February, .....	113	3	11	4		631	63	122	3	7			118	11
March, .....	146	6	12			789	65	76	6	19	5	2	181	13
April, .....	127	5	14	1		759	61	120	10	21	7		158	27
May, .....	136	6	8	2		730	55	98	5	22	3		110	13
June, .....	113	11	13	5		694	94	162	19	16	4		132	21
Total, .....	1505	65	190	21		7394	852	1353	89	188	44		61454	244

The table on the Complement Fixation Tests for Syphilis is designed to show the results of the examinations with each antigen separately. In this laboratory each specimen is tested with two antigens, one an alcoholic extract of guinea pig heart, the other an extract of heart muscle reinforced with the addition of 0.2 per cent. cholesterin. Fixation is done in the ice box for a period of four hours, after which the amboceptor and sheep cells are added and the tests then put in a water bath at 37° C. until hemolysis of the controls is complete, when readings are made. By this method a greater number of true reactions are obtained than is possible where fixation has taken place at 37° C. for a shorter period, as is done in some laboratories in the State. It is essential, therefore, that the physician who attempts to compare results from two laboratories using different antigens and different methods of fixation must have knowledge of the methods used so that he may be in a position to interpret the significance of the reaction. We are sometimes asked to explain the difference in results obtained on the same specimen of serum which has been submitted to us for examination and to another laboratory at the same time, and usually this discrepancy is explainable by the difference in the methods used. Until such time as methods and the reporting of results are standardized

there will continue to be such differences. In the methods used here, where any degree of reaction is obtained with the plain antigen, the cholesterinized antigen, being more sensitive, will give the strongest reaction obtainable, which is + + + +. It frequently happens, especially in old or treated cases, that no reaction will be obtained with the plain antigen, but a + + + + reaction is obtained with the cholesterinized antigen. When such a reaction is obtained on a primary case a diagnosis of syphilis may be made, especially if such a reaction persists, and in old or treated cases such a reaction indicates the need of further treatment. The greatest value of the test with cholesterinized antigen is in old or treated cases, as negative reactions are obtained under treatment with the plain antigen considerably earlier than with the cholesterinized antigen, so that if the physician were dependent on the plain antigen alone, treatment would be discontinued too early. The plain antigen as used here serves as a check, especially in cases for diagnosis, on the more sensitive cholesterinized antigen.

It will be seen from an examination of the above table that a greater number of + + + + results are obtained on primary cases with the cholesterinized antigen than with the plain antigen, and that in secondary cases, which are practically all treated cases, the number of + + + + reactions obtained with the cholesterinized antigen is almost double that obtained with the plain antigen.

It is regrettable that the laboratory is obliged to report so many specimens unsuitable for examination, which is due in many instances to failure on the part of the physician to prepare the specimens in accordance with the directions on the slip enclosed in the container. The greater number of these unsatisfactory reports are necessitated by the receipt of specimens where no attempt had been made before mailing to separate the serum from the clot. This results, especially during the summer months, in the specimen reaching the laboratory badly hemolyzed, making impossible the separation of any suitable serum for examination. The number of unsatisfactory specimens shown in this table is altogether too large and would be much reduced if specimens of blood were collected and treated as directed. By following the

directions, unsatisfactory reports due to other causes than hemolysis would also be largely avoided.

TABLE IV.—The following table shows the number and various kinds of miscellaneous specimens examined in the laboratory from July 1, 1921, to June 30, 1922, inclusive:

<i>Specimen for</i>	<i>Positive.</i>	<i>Negative.</i>	<i>Unsatisfactory.</i>
Rabies, .....	46	41	18
B. tuberculosis (pleural and spinal fluid, urine and various other lesions), .....	7	64	2
B. typhosus (feces, urine, blood and water), ....	202	1,563	55
B. para-typhosus (blood and feces), .....	1	45	2
Bacterial infection (pus, body fluids, feces, blood, sputum, urine, etc.), .....	315	63	20
Gonococcus infection (urine), .....	3	9	1
Ophthalmia neonatorum, .....	139	23	4
*Pneumonia, .....	10	2	..
Treponema pallida, .....	..	10	..
Trichinosis (blood, feces and pork), .....	14	9	..
Vincent's Angina, .....	2	4	..
Miscellaneous, .....	3	21	..
Total, .....	742	1,854	103

\* 36 other specimens were examined for pneumonia, but were found to be positive for other organisms, and so are not included in this total.

TABLE V.—The following table shows the number and species of animals examined for rabies from July 1, 1921, to June 30, 1922, inclusive:

Dogs—Positive, 44; negative, 38; unsatisfactory, 17.  
 Cats—Negative, 1.  
 Cattle—Positive, 2; negative, 1; unsatisfactory, 1.  
 Swine—Negative, 1.

TABLE VI.—Following are the towns, arranged by counties, from which animals found to be rabid were received from July 1, 1921, to June 30, 1922, inclusive:

Bergen County—Cliffside Park, 1; Englewood, 2; Fort Lee, 1; Hackensack, 1; Hasbrouck Heights, 1; Rochelle Park, 1; West Englewood, 1.  
 Camden County—Haddonfield, 1; Pensauken, 1.  
 Cumberland County—Cedarville, 1.  
 Essex County—East Orange, 3.  
 Mercer County—Princeton, 9.

Middlesex County—Middlesex, 1; New Market, 1; Perth Amboy, 1; South Plainfield, 1; Woodbridge, 2.

Monmouth County—Belmar, 1; Keansburg, 1; Long Branch, 1; Red Bank, 1.

Morris County—Chatham, 1; Dover, 1; Stirling, 1; Succasunna, 1.

Somerset County—Bernardsville, 1; North Plainfield, 1.

Union County—Cranford, 1; Elizabeth, 1; Fanwood, 2; Plainfield, 1; Rahway, 2.

TABLE VII.—The following table shows the number of outfits supplied to repositories maintained throughout the State and to physicians who are not conveniently located near repositories, from July 1, 1921, to June 30, 1922, inclusive:

Diphtheria—Regular outfits, .....	13,925
Serum tubes and swabs, .....	2,445
Extra swabs, .....	1,252
	17,622
Tuberculosis outfits, .....	10,072
Typhoid fever outfits, .....	3,210
Malaria outfits, .....	873
Gonorrhoea outfits, .....	3,218
Syphilis outfits, .....	13,854
Feces and urine outfits, .....	1,341
Ophthalmia neonatorum outfits, .....	637
	50,827
Total, .....	50,827

*Chemical Laboratory*, John E. Bacon, Senior Chemist.—The shellfish industry of the State amounts to approximately \$8,000,000 per year, and it is necessary that such an important food industry receive constant sanitary supervision, inasmuch as the consumption of polluted raw oysters and clams may result in the dissemination of typhoid fever.

*Navesink River Section*.—In July, 1920, this Department condemned the Navesink River as far east as Oceanic bridge. Under a permit system authority is given to the rivermen to remove oysters and clams from the condemned area and transplant the shellfish to unpolluted waters, and during the year over one hundred permits were granted. Several inspections have been made at different times to ascertain if oysters and clams are removed

from this area and sold without first being transplanted to approved waters, and we found the attitude of the clambers and oystermen very gratifying, as there appears to be a strong desire on their part to obey the law.

The following summary of the typhoid fever existing in Red Bank previous to and succeeding the condemnation of part of the river is most significant:

Number of cases of typhoid fever in 1917, .....	18
Number of cases of typhoid fever in 1918, .....	22
Number of cases of typhoid fever in 1919, .....	11
	51
Total number of cases for three years previous to condemnation, ....	51
Yearly average, .....	17

Number of cases of typhoid fever in 1920 after condemnation, .....	1
Number of cases of typhoid fever in 1921, .....	5*
Number of cases of typhoid fever in 1922, to date, .....	0

Total number of cases for two years following condemnation, ....	6
Yearly average, .....	3

(\* 1 additional case due to outside infection.)

Inasmuch as the epidemiological investigation for the 1919 cases had shown oysters to be the source of infection, the reduction in the typhoid fever rate from 17 cases per year to 3 shows the wisdom of condemning this river and prohibiting the sale of shellfish taken therefrom.

*Shrewsbury River Section*.—The shellfish industry in this section is very small, there being not more than 10,000 or 15,000 bushels of oysters in the various tributaries of this river. The work done in this section consisted in sanitary surveys and the analyses of oyster and water samples.

*Pleasure Bay*.—For convenience in locating samples Pleasure Bay has been divided into sections. Below is a tabulation of the bacteriological findings of the waters of these respective divisions:



*Section 1* (comprising that part of the bay from the mouth of Turtle Mill Creek as far north as the highway bridge at Branchport).

Total number of samples collected, .....	45
Number showing bacillus coli in 1 c.c., .....	25 = 55.5%
Number showing bacillus coli in 0.1 c.c., .....	10 = 22.5%
Number showing bacillus coli in 0.01 c.c., .....	0

*Section 2* (embracing that part of the bay lying between the highway bridge at Branchport and the highway bridge at Long Branch, exclusive of Troutons Creek).

Total number of samples collected, .....	30
Number showing bacillus coli in 1 c.c., .....	22 = 73.3%
Number showing bacillus coli in 0.1 c.c., .....	3 = 10%
Number showing bacillus coli in 0.01 c.c., .....	1 = 3.3%

*Section 3* (extending from the highway bridge at Long Branch to the mouth of Pleasure Bay, exclusive of Manahassett Creek).

Total number of samples collected, .....	25
Number showing bacillus coli in 1 c.c., .....	7 = 28%
Number showing bacillus coli in 0.1 c.c., .....	0

*Turtle Mill Creek.*

Total number of samples collected, .....	25
Number showing bacillus coli in 1 c.c., .....	24 = 96%
Number showing bacillus coli in 0.1 c.c., .....	18 = 72%
Number showing bacillus coli in 0.01 c.c., .....	5 = 20%

*Troutons Creek.*

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	39 = 97.5%
Number showing bacillus coli in 0.1 c.c., .....	29 = 72.5%
Number showing bacillus coli in 0.01 c.c., .....	13 = 32.5%

*Manahassett Creek.*

Total number of samples collected, .....	55
Number showing bacillus coli in 1 c.c., .....	41 = 74.3%
Number showing bacillus coli in 0.1 c.c., .....	26 = 47.3%
Number showing bacillus coli in 0.01 c.c., .....	8 = 14.5%

Most of the oysters in this area are located in Section 3 of Pleasure Bay, and the scores obtained for eight samples were:

5, 2, 1, 2, 14, 2, 4, 0.

These samples were taken during an extremely dry spell. Oysters taken from these waters would probably show more evidence of pollution after periods of heavy rains.

This is an undesirable shellfish area, as Pleasure Bay has thickly-settled communities along both banks. It is utilized by a large number of pleasure seekers for bathing and boating pur-

poses, and untreated fecal discharges from these people enter the bay near the oyster beds.

Although the bacteriological results of the water and oyster samples collected from the section in which oysters are grown are not particularly high, the nature of the pollution is potentially dangerous, and it was deemed that shellfish removed from Pleasure Bay were dangerous for food purposes. The Department, therefore, condemned all of Pleasure Bay lying south of a line running due east from Shallow Point.

*Parkers Creek and Oceanport Creek.*—The government cantonment Camp Vail, located between Parkers and Oceanport Creeks, empties its sewage into both of these creeks. The effluents of plants Nos. 1 and 2 are treated with hypochlorite of lime, while plant No. 3, consisting of a small septic tank, receives no disinfectant. The tanks at these disposal plants are cleaned about twice a year, the sludge is treated with hypochlorite of lime and buried about 150 feet from the banks of the streams. The flow of sewage varies with the fluctuating population at the camp, and during the summer of 1921 approximately 100,000 gallons per day were discharged into Oceanport Creek from plant No. 1, and it is estimated that the flow from plant No. 2 into Parkers Creek was about the same. Plant No. 3 discharges sewage from a small detachment of about 10 or 15 men into Parkers Creek. Inspections of the sewage plants at Camp Vail show that usually they receive adequate attention, but occasionally such is not the case, and at these times the effluent enters the creek without any disinfectant whatever.

Floats placed at the outlet of the Oceanport disposal plant and allowed to run the entire ebb tide proceeded to a short distance beyond the mouth of Oceanport Creek, indicating that fresh sewage will be carried by one tide over the oysters grown near the mouths of Parkers and Oceanport Creeks. There is some additional contamination of the creeks by cesspools and surface drainage. These creeks were condemned in 1920 by this Department. The fact that sewage, at times not disinfected, from these disposal plants enters the creeks within a comparatively short distance from the oyster grounds, thereby rendering the shellfish removed therefrom dangerous to health, made it ad-

visible to extend this area to include all the oyster section to Goose Neck bridge. The Department, therefore, condemned all that part of the Shrewsbury River lying south of Goose Neck bridge, including Parkers Creek and Oceanport Creek, and prohibited the taking of oysters, clams and other shellfish therefrom without first obtaining a permit from this Department.

Following are tabulations of the bacteriological findings of the waters collected from these two streams:

<i>Parkers Creek.</i>	<i>Flood tide.</i>	<i>Ebb tide.</i>
Total number of samples collected, .....	15	43
Number showing bacillus coli in 1 c.c., .....	15 = 100%	43 = 100%
Number showing bacillus coli in 0.1 c.c., .....	9 = 60%	32 = 74.4%
Number showing bacillus coli in 0.01 c.c., .....	0	10 = 23.2%
<i>Oceanport Creek.</i>	<i>Flood tide.</i>	<i>Ebb tide.</i>
Total number of samples collected, .....	30	25
Number showing bacillus coli in 1 c.c., .....	30 = 100%	25 = 100%
Number showing bacillus coli in 0.1 c.c., .....	20 = 66.6%	22 = 88%
Number showing bacillus coli in 0.01 c.c., .....	4 = 13.3%	15 = 60%

Scores of oysters taken from the cove at the mouth of Oceanport Creek were, 32, 5, 32, 14, and for oysters taken from the lower end of Parkers Creek, 4, 5, 23, 14, 410, 320.

The bacteriological results and sanitary inspections indicate that Little Silver, Town Neck and Blackberry Creeks, as well as the Shrewsbury River from Goose Neck bridge to Seabright, receive very little contamination, and it is our opinion that shellfish taken therefrom are safe for consumption.

<i>Little Silver Creek.</i>	
Total number of samples collected, .....	35
Number showing bacillus coli in 1 c.c., .....	12 = 34.3%
Number showing bacillus coli in 0.1 c.c., .....	3 = 8.6%
Number showing bacillus coli in 0.01 c.c., .....	0
<i>Town Neck Creek.</i>	
Total number of samples collected, .....	10
Number showing bacillus coli in 1 c.c., .....	3 = 30%
Number showing bacillus coli in 0.1 c.c., .....	0
<i>Blackberry Creek.</i>	
Total number of samples collected, .....	10
Number showing bacillus coli in 1 c.c., .....	2 = 20%
Number showing bacillus coli in 0.1 c.c., .....	0

Scores of oysters taken from Little Silver Creek were, 4, 4, 3, 1, 1.

Oysters taken from Shrewsbury River just north of Goose Neck bridge were, 3, 0, 2. Most of the oysters in this area are located in the coves at the mouths of Parkers and Oceanport Creeks, and a few in Little Silver Creek, while none whatever are found in Blackberry Creek.

Results of analyses of samples of water collected in the Shrewsbury River between Goose Neck bridge and Seabright:

Total number of samples collected, .....	60
Number showing bacillus coli in 1 c.c., .....	27 = 45%
Number showing bacillus coli in 0.1 c.c., .....	9 = 15%
Number showing bacillus coli in 0.01 c.c., .....	0

No oysters are grown in this area.

Sewage from Rumson and Seabright enter the Shrewsbury River South of the Seabright bridge, and with the idea of ascertaining what effect this would have upon the clams which are floated in Parkertown Cove at Highlands, floats were placed at the outlet of the effluent pipe and allowed to be carried down the river with the ebb tide. In two hours these floats had traveled  $3\frac{1}{2}$  miles to Spermaceti Cove, which is beyond the Parkertown floating grounds. The confluence of the Shrewsbury and Navesink Rivers takes place about one mile north of Seabright, and from this point to the Highlands the river is deep and swift flowing, and the dilution of the sewage is consequently enormous.

The following bacteriological results of examinations of samples of water indicate that shellfish laid out in Parkertown Cove receive little contamination:

<i>Area extending from Oceanic Bridge to junction of Shrewsbury and Navesink Rivers.</i>	
Total number of samples collected, .....	20
Number showing bacillus coli in 1 c.c., .....	11 = 55%
Number showing bacillus coli in 0.1 c.c., .....	0

<i>Area extending from Seabright bridge to junction of Shrewsbury and Navesink Rivers.</i>	
Total number of samples collected, .....	10
Number showing bacillus coli in 1 c.c., .....	5 = 50%
Number showing bacillus coli in 0.1 c.c., .....	1 = 10%
Number showing bacillus coli in 0.01 c.c., .....	0

From the junction of the Shrewsbury and Navesink Rivers to Highlands bridge.

Total number of samples collected, .....	5
Number showing bacillus coli in 1 c.c., .....	1 = 20%
Number showing bacillus coli in 0.1 c.c., .....	0

*Parkertown Cove.*

Total number of samples collected, .....	21
Number showing bacillus coli in 1 c.c., .....	13 = 62%
Number showing bacillus coli in 0.1 c.c., .....	1 = 4.7%
Number showing bacillus coli in 0.01 c.c., .....	0

*Soft Clam Industry at Highlands.*—The method of handling and shipping soft claims, together with a copy of the rules and regulations which were drawn to govern the operation of the shucking houses, is given in the report of the State Department of Health for 1913.

During the past year an inspection of this industry was made, and it was found that, while sanitary conditions were improved over those formerly existing, considerable remains to be done to keep the small and congested shucking houses clean and tidy. The improper maintenance of outside toilets, lack of adequate screens for the buildings and the accumulation of shells and waste products inside and outside the shucking houses are violations of the shucking regulations which were brought to the attention of the owners of the establishments.

*Maurice River Section.*—The work done in this area was similar in nature to that which has been performed during the past ten years. The sanitary conditions were found to be generally satisfactory. A few violations that were noticed and corrected serve to emphasize the fact that the large number of men employed on the shipping docks and on the boats tied up in the river over night makes rigid sanitary supervision necessary.

*Salt Oysters from Maurice River Cove.*

Number of samples examined, .....	16
Number of samples scoring zero, .....	3 = 19%
Number of samples scoring under five, .....	16 = 100%

*Oysters from the Floating Area.*

Number of samples examined, .....	51
Number of samples scoring zero, .....	10 = 19.6%

Number of samples scoring five or under, .....	44 = 86.3%
Number of samples scoring over five, .....	7 = 13.7%
One sample scored 140, which was the only one over the allowable limit of 50.	

Bacteriological examinations of water samples from Long Reach, where oysters are floated, showed the following results:

	<i>High Water.</i>	<i>Low Water.</i>
Total number of samples collected, .....	50	50
Number showing bacillus coli in 1 c.c., .....	26 = 52%	40 = 80%
Number showing bacillus coli in 0.1 c.c., .....	4 = 8%	7 = 14%
Number showing bacillus coli in 0.01 c.c., .....	0	0

Section 1 (reaches from the mouth of the river to a point just above Leesburg).

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	29 = 70.2%
Number showing bacillus coli in 0.1 c.c., .....	5 = 12.5%
Number showing bacillus coli in 0.01 c.c., .....	0

Section 2 (comprises those portions of the river in the vicinity of Dorchester, Mauricetown and Port Elizabeth).

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	28 = 70%
Number showing bacillus coli in 0.1 c.c., .....	10 = 25%
Number showing bacillus coli in 0.01 c.c., .....	0

Section 3 (embraces that portion of the river in the vicinity of Buckshutem to a point a short distance below the Millville sewage disposal plant).

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	23 = 50.7%
Number showing bacillus coli in 0.1 c.c., .....	8 = 20%
Number showing bacillus coli in 0.01 c.c., .....	0

Section 4 (includes that portion of the river in the vicinity of Millville and the sewage disposal plant).

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	40 = 100%
Number showing bacillus coli in 0.1 c.c., .....	31 = 70.7%
Number showing bacillus coli in 0.01 c.c., .....	11 = 27.5%

Samples collected from the effluent of the sewage disposal plant at Millville were analyzed and bacillus coli usually found to be absent in 0.01 c.c. dilutions.

*Wildwood Section.*—A summer visitor contracted typhoid fever as a result of eating raw clams taken from the thoroughfares of this vicinity near the sewer outlet. The epidemiological

investigation was not made until after the State boat "Inspector" had been tied up for the season, so a sanitary inspection was made and certain waterways west of Wildwood were condemned. Printed signs stating that the area was condemned and the removal of shellfish prohibited were sent to the health officials of Wildwood and Wildwood Crest, which placards were posted in conspicuous places in the condemned area.

During the next fiscal year complete sanitary investigations will be made of this area to determine definitely the area contaminated by the sewage from Anglesea, Wildwood and Wildwood Crest.

*Tuckerton Section.*—During the fall of 1921 investigations were made of the sanitary conditions existing at Tuckerton Creek and a number of samples of oysters and water were collected and analyzed. This work was done following a rainy period, and the extremely high oyster scores indicated that the creek was receiving polluting material. Inspections of the banks of the stream showed that a large portion of this pollution was caused by fecal deposits along the banks. This condition was so serious that the Department immediately called a meeting at Tuckerton, at which members of the local board of health and several of the oystermen were present. The probability of condemning this creek was pointed out and the local board of health agreed to maintain a rigid oversight of the sanitary conditions along the banks of the stream, and the oystermen promised their hearty cooperation. Additional samples were then collected and the scores of oysters were materially lowered. Following is a tabulation of the water and oyster samples analyzed during the fall:

*Tuckerton Creek.*

Total number of samples collected, .....	40
Number showing bacillus coli in 1 c.c., .....	37 = 92.5%
Number showing bacillus coli in 0.1 c.c., .....	26 = 65%
Number showing bacillus coli in 0.01 c.c., .....	12 = 5%

Scores of oysters taken from Tuckerton Creek were, 50, 500, 230, 140, 23, 50, 410, 500, 500, 500, 41, 41, 230, 50, 410.

After the public meeting above referred to improvement in the condition of the creek was effected as indicated by the decrease in the oyster scores as follows: 23, 14, 23, 14, 5, 5, 4, 5, 23, 32, 41, 5.

During June, 1922, investigations were made of Tuckerton Creek to ascertain if the supervision promised by the local board of health had been sufficient to cause permanent abatement of pollutions formerly existing. The inspections showed that the conditions were worse than in the previous fall, that the interest of the oystermen was very slight in all matters pertaining to sanitation, that stooling along the banks of the streams persisted and that the scores of oysters were particularly high after rains.

Following is a tabulation of the water and oyster samples from Tuckerton Creek analyzed during June, 1922:

Total number of samples water collected, .....	190
Number showing bacillus coli in 1 c.c., .....	161 = 84.7%
Number showing bacillus coli in 0.1 c.c., .....	91 = 47.9%
Number showing bacillus coli in 0.01 c.c., .....	42 = 22%

Scores of oyster samples floated in Tuckerton Creek, samples taken after rainy period, 50, 23, 32, 41, 50, 230, 230, 32, 50, 23, 410, 41, 320, 500.

Scores of samples taken after a dry period, 1, 1, 4, 5, 23, 41, 3, 3, 5, 3, 0, 5, 41, 5, 14, 5, 23, 14, 14.

The Director afforded the Tuckerton Board of Health an opportunity to appear to explain their failure to enforce the shellfish law and the State Sanitary Code. Invitations were extended to the oystermen to be present. This meeting was very well attended and the situation made perfectly plain to all present that unless permanent sanitary improvements were maintained at Tuckerton Creek it would be condemned and the floating of shellfish therein no longer permitted. The Director informed the local board of health regarding the steps which should be taken to abate these pollutions and placed before the Mayor of Tuckerton information as to the necessity of increasing the appropriation for the board of health to enable them to carry

on efficient sanitary inspection service and to enforce the local ordinance to protect the stream against pollution.

Knowing the commercial importance of the shellfish industry to Tuckerton, the Department is loath to condemn the creek, as we believe efficient sanitary measures will prevent its pollution and make the shellfish suitable for food purposes. The borough of Tuckerton has been given a specific time in which to perfect an efficient, permanent, sanitary service for safeguarding the creek for shellfish culture; if it is not permanent and fails to function effectively, the creek will be condemned and the floating of shellfish therein prohibited.

*West Creek Section.*—The method of floating oysters from Tuckerton Bay in this creek has been discussed in previous reports. The sanitary survey did not disclose any pollutions along this creek, and the presence of bacillus coli in the water is undoubtedly due to surface washings which gain access to the stream. Below is a tabulation of the samples of water and oysters analyzed:

Number of water samples analyzed, .....	20
Number showing bacillus coli in 1 c.c., .....	15 = 75%
Number showing bacillus coli in 0.1 c.c., .....	6 = 30%
Number showing bacillus coli in 0.01 c.c., .....	3 = 15%

Oyster scores were, 0, 4, 0, 2, 4, 32, 14, 23, 14, 23, 50.

*Food and Drug Analyses.*—The following tabulation gives the number and character of samples analyzed in the Food and Drug Laboratory during the year, which shows that 500 more samples were examined than during the previous fiscal year:

TABLE SHOWING THE NUMBER AND CHARACTER OF SAMPLES ANALYZED IN THE FOOD AND DRUG LABORATORY DURING THE FISCAL YEAR ENDING JUNE 30, 1922.

<i>Character of Sample.</i>	<i>Above Standard.</i>	<i>Below Standard.</i>	<i>Total.</i>
Milk, chemical examination, .....	2,055	285	2,340
Milk, bacteriological examination, .....	105	0	105
Milk, human, .....	17	0	17
Cream, .....	234	11	245
Meat products, .....	90	11	101
Ice cream, .....	104	0	104
Butter, .....	81	8	89
Soft drinks, .....	252	121	373
Tomato products, .....	24	1	25
Olive oil, .....	34	4	38
Dried fruits, .....	7	30	37
Cocoa, .....	25	0	25
Baking powder, .....	7	9	16
Vinegar, .....	18	11	29
Alcoholic beverages, .....	67	9	76
Miscellaneous foods, .....	90	18	108
Total, .....	3,210	518	3,728

DRUGS AND TOILET PREPARATIONS.

<i>Character of Sample.</i>	<i>Above Standard.</i>	<i>Below Standard.</i>	<i>Total.</i>
U. S. P. drugs, .....	148	56	204
N. F. preparations, .....	3	8	11
Miscellaneous drugs, .....	72	34	106
Total, .....	223	98	321

Total Drugs and Foods, .....

3,433	616	4,049
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Fifteen and two-tenths per cent. of the samples analyzed were below the legal requirements.

*Water and Sewage Analyses.*—The following summary is a tabulation by months of the analytical work performed in the Water and Sewage Division of the laboratory. Approximately 1,000 more samples were analyzed in this laboratory during the fiscal year ending June 30, 1922, than during the previous year. This additional work was caused by investigations of the bottled water supplies of the State and special investigations of the sewage disposal plant at Phillipsburg, New Jersey:

TABLE SHOWING THE NUMBER AND CLASSIFICATION OF SAMPLES ANALYZED EACH MONTH IN THE WATER AND SEWAGE LABORATORY DURING THE FISCAL YEAR ENDING JUNE 30, 1922.

MONTH.	Total Supplies.	Public.	Private.	Railroad Certification.	State Institutions.	Sand.	Sewage.	Trade Wastes.	Bottled Waters.
July.	257	218	37	13	6	2	12	0	1
August.	367	223	33	25	2	4	48	33	0
September.	478	225	32	13	4	0	204	0	0
October.	256	156	11	4	0	1	82	2	0
November.	243	172	17	3	1	2	38	2	10
December.	351	202	14	3	3	4	62	2	31
January.	433	190	9	10	6	2	195	0	25
February.	279	83	6	29	1	1	56	11	92
March.	613	112	17	10	6	3	409	5	51
April.	404	137	13	2	7	4	193	27	21
May.	342	161	20	4	3	1	149	0	8
June.	304	202	19	27	4	2	48	2	0
Totals.	4407	2138	228	143	45	35	1487	82	249

*Bottled Water Supplies.*—The term bottled water refers to all waters sold in containers except those artificially mineralized or carbonated. Previous to 1916 this Department made regular inspections of the bottled water establishments and the sources of supplies, but lack of funds, personnel and the inaccessibility of most of these places made it impossible to give them the needed attention until the laboratory was supplied with a Ford car and provisions made to permanently retain the bacteriologist usually temporarily employed for shellfish investigations during the summer.

Water that is bottled and sold as such costs at least 1,000 times more than water from the average municipal supply, and the consumers believe that it is of superior quality. Inspections by this Department have shown that the quality of bottled waters is oftentimes not as good as the public supplies. It was found that waters were not only bottled from sources receiving contamination of a dangerous type, but very frequently improper washing of bottles and dirty and insanitary conditions at some bottling plants contaminated waters which were pure when taken from the source. With the development and improvement in municipal water supplies traffic in bottled water has decreased, but there

are some places where the municipal supply has some objectionable quality, not necessarily deleterious to health, and in those vicinities bottled waters find a ready market.

Investigations made during the past year revealed 28 establishments selling bottled water and 3 establishments contemplating entering this business. It is estimated that between 5,000,000 and 6,000,000 gallons of water per year are sold in this State at prices averaging 10 cents per gallon. The lowest figure at which the water was sold was 5 cents per gallon and the highest \$1.00; the yearly income from the sale of these waters is between \$600,000 and \$800,000. As the southern section of New Jersey obtains water largely from artesian wells the sale of bottled water is confined to the northern half of the State, particularly in the northeastern section.

For the most part the sources from which bottled water is taken were found to be in satisfactory condition, and the water free from intestinal pollution, but in three establishments this was not the case, and the sale of their water was prohibited until suggested improvements were effected. There has been a marked improvement in the sanitary methods utilized in washing and filling the bottles, but the Department needs specific legislation which will enable it to make definite rules and regulations governing the bottling and sale of water. Such a bill was introduced in the Legislature during the past year, but failed to pass.

The following table gives a list of the bottled water establishments in this State, the location of the plant, bacteriological results of samples collected from the source of supply, amount sold per year and the price obtained per gallon, together with a rating of the bottling establishment:

NAME OF COMPANY.	Name of Manager.	City.	Post Office Address.	Source.	Bacteriological Results.		Amount Sold Per Year in Gallons.	Price Per Gallon.	Rating.	Remarks.
					87 C. Count.	B. Coli 50 c.c.				
Mullins Spring Water.	Barle & Carlton Moline,	Verth Amboy.	653 New Brunswick ave.	Spring.	10	4	150,000-170,000	80-10	B	Spring subject to contamination by heavy rains. Spout, tap, pipe, spring open, unfiltered.
Pilgrim Spring Water.	Louis Friedman,	Ridgefield Park.	419 Teaneck Road.	Spring.	0	1	25,000	10	A	Excellent plant, taken over by receivers, 4-1-22. Bottles poorly washed.
Belmar Spring Water.	A. J. Molero,	Glen Rock.	50 Grove st.	Spring.	1	absent	400,000-500,000	10	A	
Kanawha Spring Water.	James M. Farrell,	Oakland.		Spring.	2	absent	20,000-30,000	10	B	
Foremost Spring Water.	Otto T. Rose,	Montclair.	139 Bloomfield ave.	Spring.	1	absent	50,000 est.	10	A	Spring contaminated.
Cold Indian Spring.	Richard Morrell,	Asbury Park.	140 Passaic ave., Passaic, N. J.	Spring.	4	absent	6,000-10,000	10	C	
Great Rock Spring.	J. J. Mitchell,	Whippany.		Spring.	415	10	14,000-15,000	10	B	Bottles poorly washed.
Spring Valley Water.	G. B. Wanne,	Veolar Grove.	Summit ave.	Spring.	0	absent	13,000-20,000	10	A	B. coli consistently present in well.
X L O Water.	John Trecearin,	Millwell.	Central ave.	Well.	0	absent	50,000	10	C	
Puritas Water.	A. S. Black,	West Orange.	488 Valley road.	Well.	30	2	4,000	10	B	B. coli in spring due to contamination.
Artesian Well Water.										
Polar Spring Water.	William Burgess,	Morrisville, Pa.	Morris Heights.	Spring.	7	5	17,000	10	A	Spout, excellently located.
Indian Spring Water.	J. F. Tuttle,	Rockaway.		Spring.	32	absent	500-1,000	10	B	Bottling conditions poor.
Washington Rock Spring.	Julius Strager,	Patuxent.	114 E. Fifth st.	Spring.	9	absent	1,500-2,000	10	B	Subject to surface contamination.
Driven Well Water.	Burlington Frig Co.,	Burlington.	Columbus rd. & Logan ave.	Well.	6	absent	50,000 est.	1,000	A	High counts in charcoal filters.
Iron Rock Spring Water.	H. C. Walker,	Aerschenville.	752 Park ave. N. Y. City.	Spring.	3	absent	2,500	17	B	High counts in bottles sampled.
Claus Bottling Co.	E. Broecker,	Elizabeth.	1024 Elizabeth Ave.	Spring.	10	absent	100,000	10	A	High counts in bottles sampled. Supply to be developed.
Delicious Drinks Co.	E. M. Verance,	Clifton.	53 Brook ave.	Well.	2	absent	50,000	17	B	
Rosemont Spring Water.	Thomas Foxhall,	Passaic Park.	53 Brook ave.	Spring.	310	absent	4,000,000	10	A	
Pureck Distilled Water.	F. J. Foster,	Somerville.	R. F. D. Adamsville.	Spring.	10	absent	50,000 est.	12	A	
Great Bear Spring Water.	Dr. Cochran,	Philadelphia, Pa.	206 S. 24th st.	Distilled.	2	absent	4,000	10	B	
Penninah Spring Water.	H. J. Daube, (Bacteriologist),	Jersey City.	653 Henderson st.	Spring.	325	11 in 55 c.c.	45,000	10	A	
Rock Spring Water.	G. H. Pountith,	Patuxent.	Long Hill.	Spring.	2	absent	4,000	10	B	
Rock Spring Water.	R. G. Brewer,	West Orange.	Northfield Road.	Spring.	3	absent	25,000	10	A	
Pecho Spring Water.	L. W. Verman,	Wing Township.	Dwessport st.	Spring.	7	absent	35,000	10	A	
Keystone Spring Water.	Kimbali,	Prenon.	114 Church st.	Well.	2	absent	24,000	10	A	
Watchung Spring Water.	E. F. Smith,	Patuxent.	Mountainside ave.	Spring.	1	absent	24,000	10	A	
Sheel Rock Spring Water.	August Tempel,	Wyckoff.		Spring.	1	abs. in 5 c.c.				
Patfield Spring Water.	Crawwell,	Perth Amboy.	653 New Brunswick ave.	Spring.	10	4				

*Multiplication of Bacteria in Bottled Waters.*—Frequently it was impossible to obtain a recently filled sample of bottled water, and the sample collected was found to have a high bacterial count. The question arose as to whether these high counts were due to the natural multiplication of bacteria or to contamination of the water by improperly washed bottles. In an effort to answer this question a number of samples of water were kept in the laboratory at room temperature (20 to 22 degrees C.) and periodically examined. While the results were not sufficiently extensive to draw any definite conclusions, they do show a great multiplication of bacteria during the first week the water was bottled, after which there was a gradual decline from the maximum, a low count usually being obtained from the third to fourth week. It was found that the bacillus coli disappeared entirely in two weeks and often in a shorter time. The results obtained were not consistent throughout, but undoubtedly the rate of increase and subsequent decrease of bacteria are directly dependent upon the mineral and organic matter originally present in the water and the temperature at which it is maintained.

# Report of the Bureau of Child Hygiene.

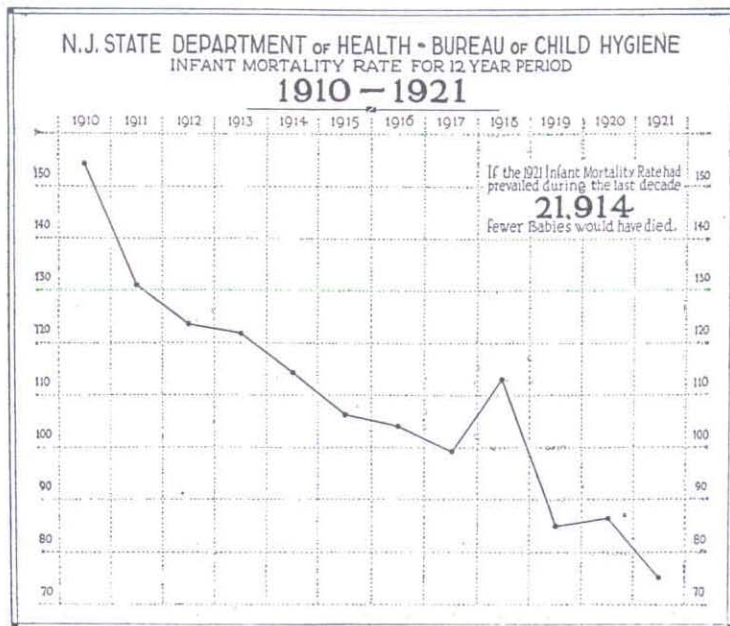
JULIUS LEVY, M.D., CONSULTANT.

## STATISTICAL SUMMARY.

BIRTHS AND DEATHS UNDER ONE YEAR AND UNDER ONE MONTH, STILL-  
BIRTHS AND MATERNAL DEATHS PER 1,000 LIVE BIRTHS FOR THE YEAR 1921.

1. Deaths under one year per 1,000 live births—
    - a. For entire State, ..... 75.6
    - b. For infants supervised by Bureau, ..... 34.2
  2. Deaths under one month per 1,000 live births—
    - a. For entire State, ..... 36.2
    - b. For infants whose mothers received prenatal supervision from Bureau, ..... 29.3
  3. Stillbirths per 1,000 live births—
    - a. For entire State, ..... 41.4
    - b. For infants whose mothers received prenatal supervision from Bureau, ..... 13.7
  4. Puerperal deaths per 1,000 live births—
    - a. For entire State (1 in every 170), ..... 5.9
    - b. For mothers who received prenatal supervision from Bureau (1 in every 555), ..... 1.8
- 94 nurses supervise annually 2700 expectant mothers, 10,000 babies and 50,000 school children.  
72 are paid for by the State Department of Health and  
22 are paid by municipalities or private organizations.  
177 communities are carrying on the State Child Hygiene program under State supervision.  
78 Baby Keep-well Stations have been established where mothers can bring their babies and pre-school children.  
6 nurses supervise 675 midwives who deliver 28 per cent. of the births in the State.  
38 communities have passed ordinances regulating and licensing boarding homes for children.



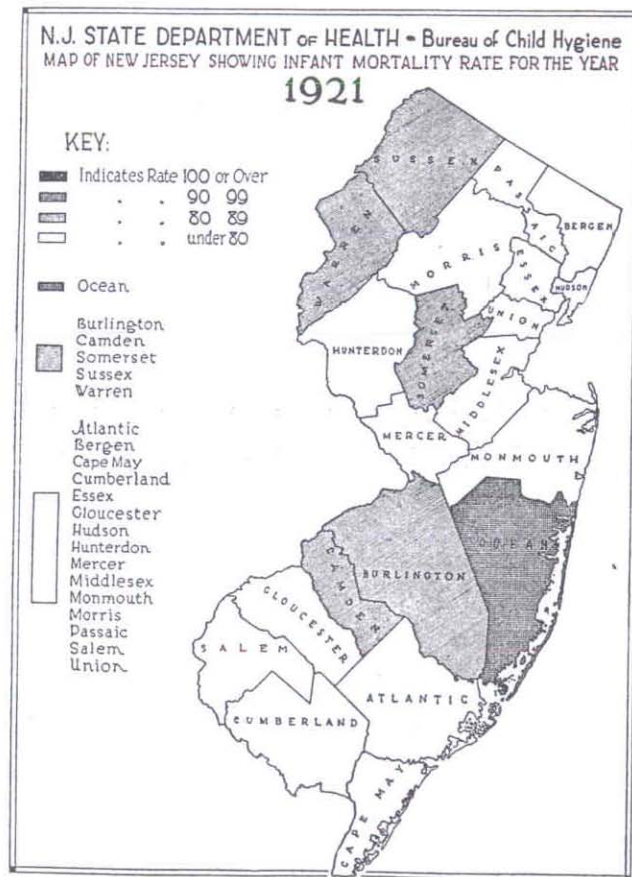


#### INFANT MORTALITY FOR COUNTIES.

The progress in baby saving is clearly indicated by a study of the infant mortality in the State by counties. Maps have been prepared showing the infant mortality rate for each county for the past five years; those counties with an infant mortality rate of 100 and over are marked in black, while those with an infant mortality rate of 80 and under are marked in white. In 1918 there were 15 black counties with only 1 white county in the State, while in 1921 there were no black counties and 15 white counties.

It is important to point out that the rural counties, as a group, do not represent the lowest infant mortality rates, and that several of our rural counties are found among those with the highest rates. This fact is of considerable importance as it indicates that in spite of a supposedly healthful environment the infant's life

is endangered unless its mother, who is its immediate environment, is in a position to give it proper and intelligent care. It is interesting in this connection to point out that Essex County with its congested industrial cities has an infant mortality rate of 67.5, the third lowest in the State, while Burlington, Ocean and Warren counties, with no city with a population over 17,000, are among the three highest.



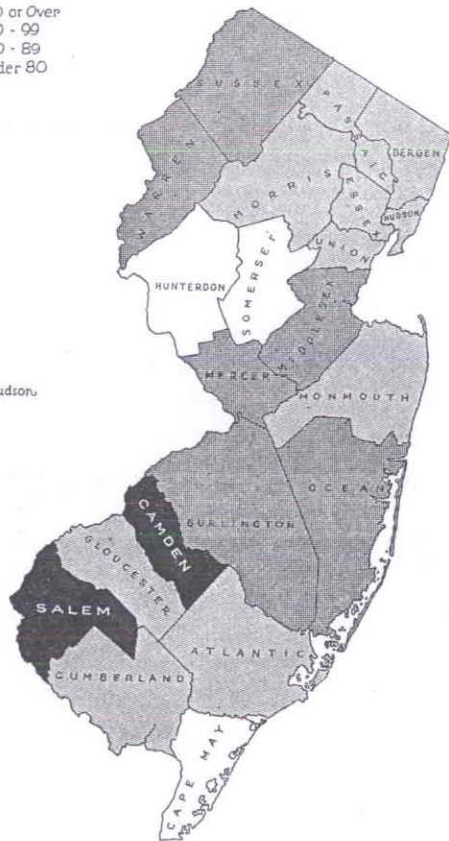
## N.J. STATE DEPARTMENT OF HEALTH — BUREAU OF CHILD HYGIENE

Map of New Jersey Showing County Infant Mortality Rate for the year  
1920

**KEY:**

- Indicates Rate 100 or Over
- Indicates Rate 90 - 99
- Indicates Rate 80 - 89
- Indicates Rate Under 80

- Camden, Salem
- Sussex, Warren, Mercer, Middlesex, Burlington, Ocean
- Passaic, Morris, Bergen, Union
- Essex, Monmouth, Gloucester, Atlantic, Cumberland, and Hudson
- Hunterdon, Somerset, Cape May



## N.J. STATE DEPARTMENT OF HEALTH — BUREAU OF CHILD HYGIENE

Map of New Jersey Showing County Infant Mortality Rate for the year  
1919

**KEY:**

- Indicates Rate 100 or Over
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- Burlington, Camden, Mercer, Sussex, Warren
- Cumberland, Hudson, Middlesex
- Atlantic, Cape May, Gloucester, Hunterdon, Morris, Salem
- Bergen, Essex, Monmouth, Ocean, Passaic, Somerset, Union



N.J. STATE DEPARTMENT OF HEALTH — BUREAU OF CHILD HYGIENE  
 Map of New Jersey Showing County Infant Mortality Rate for the year  
 1918

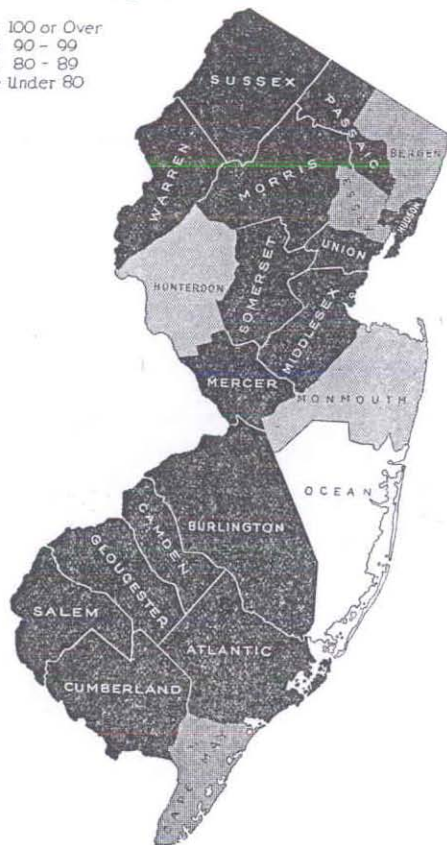
**KEY:**  
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Atlantic  
 Burlington  
 Camden  
 Cumberland  
 Gloucester  
 Hudson  
 Mercer  
 Middlesex  
 Morris  
 Passaic  
 Salem  
 Somerset  
 Sussex  
 Union  
 Warrens

Bergen  
 Cape May  
 Essex

Hunterdon  
 Monmouth

Ocean



## INFANT MORTALITY FOR CITIES.

The most striking reduction in the infant mortality rate has appeared in the larger cities of the State. Particular attention is directed to the brilliant results obtained in Elizabeth, which presents the lowest infant mortality rate of the large cities of the State.

INFANT MORTALITY RATES FOR THE TEN LARGEST CITIES IN THE STATE  
 FOR 1921-1920.

Cities.	RATE	
	1921.	1920.
Elizabeth, .....	57.1	95.3
Hoboken, .....	65.9	93.8
Jersey City, .....	73.1	112.3
Bayonne, .....	74.2	96.4
Newark, .....	77.5	89.0
Camden, .....	78.9	129.9
Paterson, .....	78.9	89.0
Trenton, .....	83.1	113.9
Passaic, .....	83.3	116.7
Perth Amboy, .....	91.7	109.0

The work in Elizabeth has been carried on through active cooperation between the State Department of Health and the Elizabeth Board of Health, this latter body appropriating \$10,000 for nurses, while the State Department of Health has supervised and directed the work. The results in all the cities show, however, the effect of efficient organization and the adoption of a practical program.

## DEATHS UNDER ONE MONTH.

For a further reduction in the infant mortality rate it will be necessary to concentrate upon the deaths under one month, as through general education, extension of maternal nursing, and improved methods of preparing modified milk for infants, the proportion of deaths between one month and one year has been considerably reduced, while the deaths under one month have been but slightly affected. The deaths under one month, particularly in the rural counties, represent practically one-half of the total deaths under one year, while in the large cities they rep-

resent a considerably higher proportion than one would expect, that is, even in the large cities under one month represent more than one-third and almost one-half of the deaths under one year.

It is also interesting to point out that Elizabeth presents the lowest mortality rate for infants under one month of all the large cities. This is entirely due to the better development of pre-natal care, obstetrical attention on the part of doctors, hospitals, and midwives, and the close supervision that is given practically all of the infants of Elizabeth immediately after birth.

#### PRENATAL CARE.

What can be accomplished through prenatal care in the reduction of maternal mortality is well indicated by the examination of the following figures, viz:

	<i>Maternal Mortality Rates.</i>		
	<i>Live Births.</i>	<i>Maternal Deaths.</i>	<i>Rate.</i>
Entire State, .....	78,172	364	5.9
Supervised by Bureau, .....	1,603	3	1.8

#### INFANT MORTALITY.

The infant mortality rate for the State of New Jersey in 1921 was 75.6, the lowest infant mortality rate for the State since records have been kept. If the infant mortality rate of 1921 had obtained in the previous ten years, 21,914 fewer babies would have died. Conversely, if the infant mortality rate of only five years ago had obtained in 1921, 8,191 babies would have died instead of 5,914, a difference of 2,267.

During 1921, 17,064 infants received active supervision from the nurses of the State Department of Health. Of this number, 10,006 were infants born during 1921. It is fair to estimate that with the additional activities of a few of the larger cities and private infant welfare agencies that approximately 25,000 babies received active supervision during the year and that of this number 15,000 were babies born in the year. This latter figure represents about one-fifth of all the infants born in 1921.

The infant mortality rate among the babies supervised by the nurses in the Bureau and under the supervision of the Bureau was 34.2, in contrast to 46.8 for 1920. While the nurses visit all these babies from birth records which are received usually not later than the second week, it is necessary to point out that a certain number of babies that die in the first hours and days are not included in this group, and that therefore it is not correct to contrast the infant mortality of the supervised babies with that for the State as a whole. The difference is so great, however, that it can readily be seen that the infant mortality rate for the State will bear a direct relationship to the number of babies placed under supervision. In other words, the infant mortality rate of the State will be fixed within certain limits by the amount of money and personnel available for the prosecution of this work.

During 1921, 3,382 expectant mothers were under the supervision of the Bureau, of which 2,735 were listed during the year. Of the 1,641 terminated pregnancies there were 1,603 live births, 16 miscarriages, 22 stillbirths, 3 maternal deaths, and of the live births 47 deaths under one month.

The maternal mortality rate in this group of mothers was 1.8, or one mother in every 55.5, in contrast with 5.9, or one mother in every 17.0 for the State as a whole. The stillbirth rate was 13.7, in contrast with the State rate of 41.4. The death rate for infants under one month was 29.3, in contrast with the State rate of 36.2.

In this summary is found an indication of the work to be done if we would prevent the terrible waste of the most valuable lives in the community—those of the expectant or young mothers. From this experience it is safe to say that an extension of prenatal supervision and improved obstetrical care will considerably reduce maternal and early infant mortality. A special effort is to be made during the coming year for the rapid multiplication of prenatal clinics and the supervision of the expectant mother.

The high mortality of infants in the first month of life in certain counties of the State, almost twice as great as that in the city of Elizabeth, calls for more intensive supervision of the expectant mother and for better obstetrical facilities.



The maternal mortality was above the average for the State in the following counties, viz.:

Burlington	Mercer
Essex	Camden
Hudson	Morris
Ocean	Monmouth
Passaic	Cape May
	Salem

Particular attention is again called to counties like Morris, Monmouth, Cape May and Salem, which present the four highest maternal mortality rates of the counties in the State. It would appear that in certain of these counties where extensive public health work is being carried on that the work is not so directed as to yield the best results for the reduction of maternal mortality. This observation applies also to certain counties that present a very high infant mortality rate among infants under one month. The State's maternal mortality rate for 1921 still remains above the average for the five-year period (1916-1920) for the State, which was 5.5.

The following counties show a reduction in the 1921 maternal mortality rate over that of the 1920 rate, namely:

Atlantic	Mercer	Somerset
Camden	Middlesex	Sussex
Gloucester	Morris	Union
Hunterdon		Warren

The large cities are confronted with the ever-growing problem of a steadily increasing maternal mortality. This is found in Newark, Jersey City, Trenton, Bayonne, Elizabeth, Hoboken, Passaic and Paterson. Perth Amboy shows a very unusual reduction in the maternal mortality of that city. There has been a tendency in recent years for publicists and obstetricians, supposedly representing the medical profession, to try to dispose of this problem of the ever-increasing rate in maternal mortality by charging it to the midwives. A careful study of the available statistics does not warrant this statement. In Newark, where accurate figures are available, there has been a decrease in the

percentage of cases delivered by midwives for the past 5 years, with a steady increase in the maternal mortality. I feel that this is one of the gravest problems before the State, which, however, can only be worked out by active co-operation between public health bodies and the organized medical profession.

#### NURSES' ACTIVITIES.

During 1921, 94 nurses working in 177 communities were under the supervision of this Bureau, 72 paid by the State Department of Health and 22 by local municipalities and private organizations. These nurses made 141,936 visits of which 13,906 were made to expectant mothers, 108,978 to infants and pre-school children, 7,958 to school children, and supervised during the year 17,064 babies. At the Baby Keep-well and Prenatal Stations, 842 expectant mothers, 39,474 infants and 2,352 children of pre-school age received attention.

The large amount of work detailed in the above figures is due to the method of organization, as each nurse has a definitely assigned district where in most instances the continuous Child Hygiene program is carried on. In this way she can supervise the expectant mother, the infant, the pre-school child and the child of school age, and carry on the necessary Child Hygiene work in the allotted district with the least loss in time and effort.

This plan, we believe, New Jersey is the first to carry out on a larger scale. It naturally works for increased efficiency and economy and permits the establishment of Child Hygiene work on such a basis that small communities and municipalities can afford to contribute towards paying the entire salary of the Child Hygiene nurse.

Very rapid strides have been made in the development of the school work in co-operation with the Boards of Education and County Superintendents of Schools. The School Hygiene work is an integral part of the Child Hygiene program in 94 communities, representing a school population of 50,000. For these school children 132,851 inspections have been made assisted by doctors, 43,880 defects have been discovered of which at the end of 1921, 7,889 were reported as corrected; 1,020 instances of illnesses were detected, 1,751 pupils were excluded upon recom-

mentation as a result of the inspections and 7,958 visits were made in the interests of the school children.

We desire to point out, however, that the entire Child Hygiene program is in the interest of the school children and the school authorities, as only by intensive supervision and instruction in the pre-school period will it be possible to bring to the schools a well-nourished, well set-up, vigorous child, able to receive the full benefit of the education offered to it. School men should be the first to urge the development of the continuous Child Hygiene program as through it considerable moneys will be saved the school authorities by the prevention of unnecessary retardation, unnecessary absences and the establishment of special schools for the malnourished or tubercular child. I am glad to say that most of the Principals and County Superintendents of Schools have been very active supporters of the continuous Child Hygiene program.

A glance over the record of defects detected among children of pre-school age will satisfy those interested in school children that most of the defects and deformities in school children can be detected and corrected before they come to school. Particular attention is called to the 185 cases of adenoids, 112 cases of defects of the eyes, 20 cases of hernia, 20 cases of malnutrition, 254 cases of skin eruption and 38 cases of rickets.

<i>Baby Keep-Well Stations</i> , .....	78
Cities, towns and communities where Child Hygiene Nurses under State supervision are working, .....	177
Nurses under supervision of State Department of Health, .....	94
Paid by State Department of Health, .....	72
Paid by private organizations or municipalities, .....	22
Physicians in charge of work at Baby Keep-Well Stations, .....	109
<i>Visits made by Nurses</i> , .....	141,936
To expectant mothers, .....	13,906
To babies, 2d year and pre-school children, .....	108,978
To school children, .....	7,958

<i>Baby Keep-Well Stations</i> , .....	842
Prenatal examinations, .....	43,474
Baby visits to the stations, .....	39,474
Second year and pre-school children visits to stations, .....	2,352

*Prenatal Care*—(Expectant Mothers).

Supervised prenatal cases during 1921, .....	3,382		
Placed under supervision during 1921, .....	2,735		
Pregnancies ended, .....	1,641		
Miscarriages, .....	16		
Live births, .....	1,603		
Deaths of babies under one month, .....	47		
Maternal deaths, .....	3		
Stillbirths, .....	22		
Attendants at birth—			
<i>Midwife.</i> .....	<i>Doctor.</i>	<i>Hospital.</i>	<i>No. Attendant.</i>
478—29%	1057—65%	79—5%	11—1%

*Infant Care.*

Babies supervised during 1921, .....	17,064
Placed under supervision during 1921, .....	10,006
Infant deaths, .....	343

*Illnesses and Defects.*

Detected (including babies, pre-school children and older members of the family, but <i>not</i> including school children, .....	4,471
Corrected (including babies, pre-school children and older members of the family, but <i>not</i> including school children, .....	1,343
Cases referred to doctors, .....	2,776

*School Hygiene.*

Number of communities where school hygiene work is carried on, .....	94
Number of school children supervised, .....	50,000
Inspections (general, class-room, annual, etc., assisted by doctor), .....	132,851
Defects detected, .....	43,880
Defects corrected, .....	7,889
Illnesses detected, .....	1,020
Illnesses corrected, .....	660
Pupils excluded, .....	1,751
Treatments in school, .....	1,314
Home visits, .....	7,958

*Contagious Diseases.*

Suspected cases or cases improperly quarantined, .....	628
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<i>Late reported births</i> , .....	387
<i>Unreported births discovered</i> , .....	221
<i>Bad housing and unsanitary conditions reported</i> , .....	359
<i>Eye smears taken by nurses</i> , .....	159

## MIDWIFERY.

The Bureau has attempted to deal with the problem of maternal mortality and mortality during the first month of life primarily

through the active supervision and education of the midwife. It has succeeded in organizing midwives in the State in 8 counties where 80 per cent. of all the licensed midwives in the State are practicing. These organizations have held 66 meetings during the year and through their own rules and regulations have tried to elevate their standards of practice.

While a remarkable transformation has taken place in the character of the midwives' activities and practices, we must point out that properly to protect the life and health of the expectant mother and her infant, some radical changes are necessary in the method of training, licensing and supervising midwives, namely:

1. A school for midwifery under State control would insure proper selection of applicants and give proper training, experience and instruction.
2. The examination for the license to practice should include a practical examination as we have found midwives licensed to practice who have attended not more than two or three cases during their period of training.
3. The Department that supervises the actual practice of the midwife should direct and be able to enforce its rules and regulations.

During the year the Supervisors of Midwives have made 6,563 visits and made special investigations in 364 puerperal deaths. Of the 269 carefully verified instances it was found that in only 27 cases was a midwife in attendance at any time. When it is realized that the midwives attend 28 per cent. of all the births and that they were found to be in attendance in only 10 per cent. of the puerperal deaths, it would seem good evidence that the high maternal mortality is not due to midwifery practice and that supervision is yielding good results.

The midwives, as a result of the plan of co-operation, have reported to the Bureau 236 prenatal cases and 77 cases of labor. Thirteen deliveries have been witnessed by the Supervisors of Midwives.

The Bureau has recommended 11 midwives for revocation of license and referred 9 midwives for prosecution for practicing

midwifery without a license. We have succeeded in influencing 4 midwives to give up their license and to discontinue their practicing on account of general incompetency and old age. Of the 11 midwives recommended for revocation of license 4 had their license revoked. We wish to point out a recommendation of this character is not made by the Bureau until it has made every attempt to correct the malicious, undesirable or dangerous practice of the midwife. Penalties were imposed varying from \$200 to \$500 in five cases. The effectiveness of the supervision of midwifery would be considerably increased if the Department of Health were in a position to take direct action upon the recommendations of this Bureau.

#### *Midwives Organization.*

Visits made by District Supervisors to midwives or in connection with midwifery supervision, .....	6,563
Puerperal death cases referred to Bureau and investigated, .....	364
Cases where it was possible to ascertain who attended patient, ...	269
Number of these cases which were attended by a midwife at any time during pregnancy, .....	27
(10 per cent., although midwives attend 28 per cent. of all births.)	
Deliveries witnessed by District Supervisors, .....	13
Labor reported by midwives to District Supervisors, .....	77
Prenatal cases reported by midwives to District Supervisors, .....	236
Ophthalmia cases referred to Bureau, .....	42
Cases investigated and placed under proper medical supervision, ..	37
Number of cases attended by midwives (27 per cent.), .....	10
Active midwives in the State, .....	677
Licensed midwives, .....	415
Unlicensed midwives, .....	262
Midwives Associations' meetings, .....	66
Number of midwife associations, .....	9
With a membership of .....	230
Counties covered by these associations, .....	8
Burlington, .....	Mercer,
Camden, .....	Middlesex,
Essex, .....	Passaic,
Hudson, .....	Union.
Maternity Homes licensed, .....	7
Conducted by midwives, .....	2
by nurses, .....	4
by physicians, .....	1

## BOARDING HOMES.

This Bureau has continued its efforts to eliminate baby farms and to prevent unnecessary separation of mothers and infants by requiring boarding homes for children to be licensed. Wherever possible it influences municipalities to pass ordinances that would give them the authority to license boarding homes, the Bureau offering to make the initial investigation and recommendations. This applies particularly to the smaller communities which usually object to passing such an ordinance on account of their inability to do this part of the work.

There are now 36 communities that have passed or adopted an ordinance authorizing the licensing and supervision of boarding homes for children similar to Chapter VIII of the Sanitary Code, viz.:

County	Community.	County	Community.
Bergen, .....	Englewood, Fairview, Hackensack, Leonia, Little Ferry, Lyndhurst, Palisades Park, Teaneck, Bergenfield.	Mercer, .....	Ewing Township, Princeton, Trenton.
Camden, .....	Camden.	Middlesex, ...	South Amboy, Perth Amboy.
Essex, .....	Belleville, East Orange, Irvington, Newark, Orange, South Orange, West Orange, Caldwell.	Monmouth, ...	Long Branch.
Hudson, .....	Bayonne, Kearny.	Morris, .....	Dover, Morristown.
		Ocean, .....	Point Pleasant Boro.
		Somerset, ....	Bound Brook, Somerville.
		Union, .....	Cranford, Hillside Township, Plainfield, Westfield, Summit.

During the year seven baby farms, where 108 children were boarded, have been closed up, and 73 per cent. of these children have been returned to their parents. One hundred and fifty-one

boarding homes have been licensed of which 81 per cent. agreed to board not more than 2 children.

At the request of the local health departments surveys of the boarding home situation have been made in the following communities, viz.:

Bound Brook, Elizabeth,	Englewood, Irvington,	Lyndhurst, Perth Amboy, Somerville.
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## UNMARRIED MOTHERS.

Continued efforts have been made by the Bureau to try to arrange for the supervision of every unmarried mother and baby in the State, and we have succeeded in perfecting arrangements for a large percentage of the 999 unmarried mothers referred to the Bureau during the year. We still feel however, that if these cases are to be handled properly, together with a number of other social problems related to Child Hygiene, it is necessary to organize on a county basis social agencies that will effectively deal with the various family problems discovered by the nurses in their visits to the mothers and babies.

The establishment of small convalescent homes for nursing mothers in the Southern, Central and Northeastern parts of the State would assist considerably in re-establishing both mother and baby. These homes could also be used for registries for wet-nurses, for the distribution of breast milk, and for the convalescence of mothers who should not be returned to their homes directly from the hospital.

## EXTENSION WORK.

A considerable number of communities in the State have assumed their responsibility for the Child Hygiene program by paying part of the whole salary of one or more nurses, as a result of the demonstration conducted by this Bureau.

These municipalities are, viz.:

Atlantic City,	Woodbridge Township,	Perth Amboy.
Burlington,	Hammonton,	Phillipsburg,
Camden,	Leonia,	Rahway,
Dover,	Netcong,	Salem,
Elizabeth,	New Brunswick,	Trenton,
		Kearney.



In all instances the method established by the State Department has been continued and the State has been requested to continue the supervision of the work.

The combined cities have assumed salaries amounting to approximately \$45,000.

#### PREVENTION OF BLINDNESS.

Through instruction to the nurses and the midwives the Bureau has continued to make every effort to prevent ophthalmia neonatorum and blindness. Forty-two cases of ophthalmia were referred to the Bureau by Health Departments and 159 eye smears were taken by nurses under the Bureau's supervision. The District Supervisors of Midwives constantly instruct midwives in the importance of the use of silver nitrate, the prompt reporting to the Department of Health of all cases of ophthalmia, and in addition to immediately send for a physician. It can readily be seen that as the number of Child Hygiene nurses is increased, the State can have an increased confidence that the cases of blindness from neglected ophthalmia will be prevented.

#### DENTAL CLINICS.

The Department purchased a dental ambulance which has been used in co-operation with the school authorities in Burlington County for the correction of dental defects and teaching oral hygiene. It is contemplated to use this dental ambulance to demonstrate the value and importance of this work in other counties from time to time.

The Perth Amboy dental clinic has continued to look after children of the pre-school age as well as the school children, and reports having treated 805 children and to have conducted 228 examinations, 844 extractions, 131 cleanings, 117 treatments and 842 fillings.

#### CO-OPERATION.

The Nurses have actively co-operated with all agencies and departments and have paid particular attention to the detection of unreported births, unreported and improperly quarantined

contagious diseases; they have referred suspected cases of venereal diseases and tuberculosis to private physicians or public clinics or departments.

#### RED CROSS AND COUNTY HEALTH ORGANIZATIONS.

Automobiles have been made available by the Red Cross Chapters in the following counties:

Ocean, Warren, Middlesex.

and the Gloucester County Health Organization has provided autos for the rural work in that county. From this arrangement one nurse is able to carry on her work in as many as 15 small communities and thus give the same type of continuous Child Hygiene Work in these small rural villages that obtains in the large cities.

#### EXHIBIT MATERIAL.

##### Posters—

Distributed, ..... 5,292

Displayed in the following places:

Baby Keep-well Stations,	Offices,
Banks,	Post Offices,
Barber Shops,	Railroad Stations,
Borough Halls,	Restaurants,
Bulletin Boards,	Schools,
Churches,	Street Cars,
Community Houses,	Telegraph Poles,
Fire Houses,	Theatres,
Libraries,	Young Women's Christian Associations.
News Stands,	
Stores—Bakery, Candy, Drug, Dry Goods, Furniture, Grocery, Jewelry, Novelty, Shoe, Stationery.	

##### Fairs, Health Weeks, etc.—

The Bureau has actively co-operated by furnishing:

Moving Picture Machine,	Radioticon,
Temple of Health,	Station Equipment,
Stereomotograph,	Charts,
Slides,	Posters and Literature.

Large Child Hygiene Exhibit,

To 14 Fairs, Health Weeks, etc., as follows:

Atlantic County Agricultural Fair,  
Burlington County Agricultural Fair,  
Cape May County Agricultural Fair,  
Collingswood Fair,  
Cranbury Health Week.

Hunterdon County Agricultural Fair  
 Interstate Fair at Trenton,  
 Lawrenceville Fair,  
 Mercer County Agricultural Fair,  
 Montclair Health Promotion Week,  
 Morris County Agricultural Fair,  
 New Jersey State Child Welfare Week,  
 Summit Health Week,  
 Sussex County Agricultural Fair.

## SLIDES.

In addition to the above-mentioned Fairs and Health Weeks, Child Hygiene slides have been shown at 23 theatres and moving picture houses of 17 different cities. These slides were shown from 2 to 52 times in each theatre, which had a total seating capacity of 17,600 persons.

## INFANT MORTALITY, DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY RATES FOR THE ENTIRE STATE AND FOR EACH COUNTY FOR

1921.

<i>Counties.</i>	<i>Infant Mortality Rate.</i>	<i>Death Under One Month.</i>	<i>Still-births.</i>	<i>Puerperal Deaths.</i>
New Jersey, .....	75.6	36.2	41.4	5.9
Atlantic, .....	72.1	37.6	38.6	5.7
Bergen, .....	70.2	34.7	38.0	4.5
Burlington, .....	88.0	69.9	51.4	6.7
Camden, .....	87.8	38.6	50.5	6.9
Cape May, .....	59.4	39.6	30.8	8.8
Cumberland, .....	72.7	35.2	33.7	5.2
Essex, .....	67.5	34.2	41.8	6.1
Gloucester, .....	78.1	37.7	38.6	3.5
Hudson, .....	75.6	32.6	46.8	6.2
Hunterdon, .....	74.5	41.0	47.1	3.0
Mercer, .....	78.9	40.1	39.2	6.7
Middlesex, .....	75.6	39.4	32.5	5.4
Monmouth, .....	72.8	41.2	39.5	7.8
Morris, .....	76.2	43.8	42.2	7.6
Ocean, .....	99.0	54.0	38.2	6.7
Passaic, .....	74.5	38.5	41.6	6.7
Salem, .....	73.4	32.8	55.1	11.8
Somerset, .....	84.1	42.0	38.1	4.8
Sussex, .....	80.8	45.9	33.2	4.7
Union, .....	59.9	29.6	34.6	3.7
Warren, .....	89.4	43.7	52.0	1.0

## INFANT MORTALITY, DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY RATES FOR THE TEN LARGEST CITIES FOR

1921.

<i>Cities.</i>	<i>Infant Mortality Rate.</i>	<i>Deaths Under One Month.</i>	<i>Still-births.</i>	<i>Puerperal Deaths.</i>
New Jersey, .....	75.6	36.2	41.4	5.9
Newark, .....	74.2	37.0	45.8	6.5
Jersey City, .....	83.1	33.6	46.6	7.5
Trenton, .....	77.5	38.7	37.8	7.8
Camden, .....	91.7	37.7	54.3	7.1
Bayonne, .....	78.9	35.5	35.9	5.3
Elizabeth, .....	57.1	24.4	33.0	5.3
Hoboken, .....	65.9	28.3	52.0	6.3
Perth Amboy, .....	83.3	45.6	29.7	1.4
Passaic, .....	78.9	40.8	40.2	6.5
Paterson, .....	73.1	38.5	45.9	7.3

## BIRTHS AND DEATHS UNDER ONE YEAR FOR THE YEAR 1921 IN THE COUNTIES OF NEW JERSEY AND MUNICIPALITIES HAVING FIVE THOUSAND OR MORE POPULATION.

	<i>Infant Mortality Rate.</i>	<i>Total Births.</i>	<i>Deaths Under One Year.</i>
Atlantic County, .....	72.1	1,912	138
Atlantic City, .....	84.5	1,100	93
Hammonton, .....	57.5	191	11
Bergen County, .....	70.2	5,041	354
Englewood, .....	98.8	263	26
Garfield Borough, .....	71.6	614	44
Hackensack, .....	55.0	454	25
Ridgewood, Village, .....	64.2	109	7
Rutherford Borough, .....	19.6	153	3
Burlington County, .....	88.0	1,886	166
Burlington, .....	94.6	243	23
Camden County, .....	87.9	4,731	416
Camden City, .....	91.7	3,074	282
Gloucester City, .....	116.7	274	32
Cape May County, .....	59.4	454	27
Cumberland County, .....	77.2	1,334	97
Bridgeton, .....	86.0	302	26
Millville, .....	64.9	354	23
Vineland, .....	81.3	209	17

	<i>Infant Mortality Rate.</i>	<i>Total Births.</i>	<i>Deaths Under One Year.</i>
Essex County, .....	67.5	16,166	1,092
Belleville Town, .....	56.5	442	25
Bloomfield, .....	43.1	487	21
East Orange, .....	42.7	935	40
Irvington, .....	42.9	512	22
Montclair, .....	55.5	594	33
Newark, .....	74.2	11,051	821
Nutley, .....	63.9	266	17
Orange, .....	81.2	849	69
South Orange, .....	36.2	138	5
West Orange, .....	50.9	353	18
Gloucester County, .....	78.2	1,138	89
Hudson County, .....	75.6	16,182	1,224
Bayonne, .....	78.9	2,419	191
Guttenberg, .....	95.8	146	14
Harrison, .....	66.3	482	32
Hoboken, .....	65.9	1,729	114
Jersey City, .....	83.1	7,916	658
Kearny, .....	56.9	579	33
Town of Union, .....	87.0	356	31
West Hoboken, .....	52.9	793	42
West New York, .....	65.8	775	51
Hunterdon County, .....	74.5	657	49
Mercer County, .....	78.9	4,156	328
Princeton, .....	80.4	87	7
Trenton, .....	77.5	3,200	248
Middlesex County, .....	75.6	4,918	372
New Brunswick, .....	69.6	991	69
Perth Amboy, .....	83.3	1,379	115
Roosevelt, .....	69.5	374	26
South Amboy, .....	91.8	196	18
Monmouth County, .....	72.8	2,279	166
Asbury Park, .....	52.4	267	14
Long Branch, .....	73.9	338	25
Red Bank, .....	55.0	218	12
Morris County, .....	76.2	1,824	139
Dover, .....	65.7	228	15
Morristown, .....	86.9	299	26
Ocean County, .....	99.0	444	44
Passaic County, .....	74.5	6,386	476
Clifton, .....	67.3	668	45
Passaic, .....	78.9	1,837	145
Paterson, .....	73.1	3,115	228

	<i>Infant Mortality Rate.</i>	<i>Total Births.</i>	<i>Deaths Under One Year.</i>
Salem County, .....	73.5	762	56
Salem City, .....	87.5	160	14
Somerset County, .....	84.1	1,022	86
North Plainfield, .....	96.8	134	13
Somerville, .....	58.2	135	8
Sussex County, .....	80.8	631	51
Union County, .....	59.9	5,288	317
Elizabeth, .....	57.1	2,574	147
Plainfield City, .....	47.8	732	35
Rahway, .....	79.1	278	22
Summit, .....	46.9	213	10
Westfield, .....	37.6	186	7
Warren County, .....	89.4	961	86
Phillipsburg, .....	88.1	397	35

## Report of the Bureau of Venereal Disease Control.

A. J. CASSELMAN, M.D., CONSULTANT.

An unusual feature of the work of the Bureau of Venereal Disease Control was a series of demonstration clinics on the diagnosis and treatment of syphilis, held in ten cities in the State. More than one-fifth of all the practicing physicians in the State attended these meetings, in which the laboratory aids to diagnosis were considered and simple but efficient methods of preparing and administering anti-syphilitic drugs were discussed and demonstrated. The physicians in charge of the local clinics joined in the demonstrations, and in many cases recognized authorities from outside the State presented papers on special parts on the program.

The objects of these demonstration clinics were: to induce practicing physicians, who do not refer cases of syphilis to specialists and who do not themselves treat the disease effectively, to administer a rational treatment for the disease which would at least render the existing cases non-infectious; to enlist the interest and support of the practicing physicians in the public health movement to control syphilis and gonorrhoea; and, to induce physicians to report all cases to the State Department of Health and all delinquent cases to the local health boards. That these demonstration clinics have been in a measure successful is evidenced by the increased interest of physicians in the work. The Bureau has received requests for help in the diagnosis and treatment of cases and the clinics have been increased by indigent patients referred to them by the physicians interested.

The number of clinics has been increased to twenty-one, and in smaller communities a number of physicians have agreed to examine and treat indigent cases sent them by the State or municipal health authorities or non-official agencies. The reduction in the appropriation of the Bureau has necessitated the withdrawal of

the offer of the State Department of Health to supply public clinics with arsphenamine, and in practically all clinics the municipalities have agreed to supply this drug. With the greatly reduced price at which arsphenamine can be purchased for free administration, the expense, while considerable, if all the drugs were supplied by the State, is not too great for the municipalities to bear.

Of course, it has been necessary to reduce the personnel of the Bureau which could be assigned to the work of public education as a means to control the disease. This reduction necessitated a change of policy; instead of lecturing in an unsystematic manner before any groups which could be interested to hear the subject, the Bureau has obtained the services of regional consultants of the U. S. Public Health Service and representatives of non-official social hygiene groups. The Bureau has arranged a definite itinerary for these lecturers and the State has been covered in a methodical manner. At less expense to the Bureau, more lectures have been given than were given by the representatives of the Bureau under the scheme previously adopted, and we are convinced that we have increased the effectiveness of the educational program.

New Jersey has been fortunate in having the services of representatives of the Interdepartmental Social Hygiene Board, who have been active in investigating vice conditions practically throughout the State and who have been instrumental in closing several of the more notorious districts. It is gratifying to report that these agents have worked in perfect harmony with the Bureau and the work has been advanced materially by their efforts. During the coming fiscal year the work formerly done by the Interdepartmental Social Hygiene Board will be continued under the Department of Justice, but what effect this will have upon the work of New Jersey we do not know. It is hoped that we may have the benefit of this service.

#### MEDICAL ACTIVITIES.

Although the Bureau has discontinued the supply of arsphenamine to established clinics, the newer clinics are supplied with

arsphenamine until arrangements can be made to have the drug purchased by the municipality, the hospital, or through a fund collected by requiring a nominal fee from the patients treated. The Bureau has offered to supply all of the clinics with breakable equipment, such as syringes and other glassware. This service is continued because in practice many of the clinics find it difficult to have this equipment supplied immediately when unavoidable emergencies occur. If there is not some agency through which replacements can be obtained quickly the treatment of patients may suffer through the interruption of the routine of clinic management. In some of the smaller and inaccessible municipalities where no clinic service is available, physicians have agreed to cooperate with the Bureau by examining and treating public cases, referred to them by State and local health boards and unofficial agencies, such as the charity organizations. The Bureau has found it expedient to supply these physicians with arsphenamine in small quantities as reports of cases treated by them are submitted, and until a more effective means for treating cases in the rural communities is evolved, the service probably will be continued.

In addition to the demonstration clinics referred to above, the Bureau has attempted the following work with the practicing physicians of the State. The pamphlet entitled "The Diagnosis and Treatment of Gonorrhoea and Syphilis" has been distributed to all of the physicians of the State, and to nurses and hospital social workers as well, for the first part of the pamphlet deals with the part which the public health nurse can play in assisting the physicians in treating cases of venereal disease. The Bureau has prepared and distributed two leaflets of "Advice to Persons Suffering from Venereal Diseases," with directions for preventing the spread of these diseases, a duty required of the State Department of Health by Chapter 253, P. L. 1918: a briefer leaflet in simpler language for uneducated patients, and a more detailed description of the diseases and their treatment for more intelligent cases.

History charts for the treatment of syphilis and gonorrhoea were prepared primarily for the use of the clinicians in treating cases, but more than three hundred practicing physicians have

asked to be supplied with these forms and the Bureau has supplied the forms to the physicians who requested them.

Another service rendered by the Bureau was the preparation of a pamphlet, "The Right to Marry," which is distributed by the marriage licensing officers to applicants for such licenses. This pamphlet explains the reason why the marriage act prohibits persons from marrying who are infected with these diseases in a communicable stage, and suggests the desirability of the physical examination of persons about to marry. A form for the record of the examination and certificate is added to the pamphlet.

1. Clinics—	
(a) Number of venereal disease clinics, .....	21
(b) Number of cases of gonorrhoea treated, .....	1,795
(c) Number of cases of syphilis treated, .....	2,000
(d) Number of cases of chancroid treated, .....	26
2. Number of doses of arsphenamine administered, .....	13,303
3. Total number of treatments administered (including arsphenamine), .....	60,151

#### EDUCATIONAL ACTIVITIES.

The informational and educational work is carried on with three general aims:

1. The reduction of the number of foci of infection.
2. The diminution of opportunities for extra-marital sexual contacts.
3. The prevention of sexual promiscuity.

The number of foci of infection is reduced chiefly by the dissemination of information regarding the possibility of cure, the methods of treatment, and the facilities for free diagnosis and treatment for indigent venereally infected individuals. Although the broadcasting of information regarding municipal and state facilities for the free treatment of venereal diseases is effective in persuading diseased persons to seek treatment, it is, however, necessary to follow this up with real individual educational work in order that the patient may appreciate the importance of continuing the treatment until he has been cured, or at least rendered non-infectious. This educational work requires the services of a tactful medical case worker in attendance at each clinic. Seven case

workers are now carrying on the educational work in different parts of the State.

The social responsibility for protecting the sub-normal individual and also the normal individual who is innocent or inexperienced in worldly matters requires that measures be taken to diminish so far as possible any and all opportunities for promiscuous sexual intercourse. In order to accomplish this end it is usually necessary to educate small civic groups, not only to the point where they will realize the need for having the sub-normal persons properly treated and supervised and in extreme cases given institutional care, but also the need for supervision of the juvenile delinquent who is likely to develop, if unaided, into the adult prostitute. Society has a larger duty in the protection of the normal individual from the possibility of becoming infected with venereal diseases. This protection can be given by creating favorable environment, the elimination of commercialized vice districts, the repression of the clandestine prostitute and the proper supervision and regulation of all amusement places. The spreading of information regarding existing conditions in any community, or the need for rehabilitation of the mental defective and the desirability of surrounding the average person with wholesome environment, is not sufficient to produce results. The improvement of social community conditions requires intensive educational work with key groups that are able and willing to co-operate with Federal and State officials. Ten social hygiene committees have been formed.

The prevention of sexual contacts outside of the marriage state resolves itself into the creating and crystallizing of public opinion for the single standard of morality. The spreading of information regarding the desirability of the monogamous marital state, the biological and hygienic reasons for continence is not effective. If the communal ideal of a single standard of morality is to be created and accepted by the great masses it requires a most carefully formulated educational campaign among key groups in every strata of society. This educational work must be carried on constantly and systematically until the individual believes absolutely that public opinion demands extra-marital continence. Along with the education of society to its responsibility there

must be an effective training and instruction of the individual in sex matters. The building of character for individual chastity would be the ideal way of controlling venereal diseases. The mere stating of biologic, psychologic and sociologic facts has little place in the development of individual chastity, which ultimately depends solely upon a true education which includes character building.

	<i>Attendance.</i>
Lectures to boys (mostly high school groups) (44), .....	11,600
Lectures to girls (mostly high school groups) (12), .....	3,780
Lectures to physicians (6), .....	242
Lectures to men (general audiences) (27), .....	2,473
Lectures to women (auspices of Women's Clubs, League of Women Voters, Parent-Teachers' Assns, churches, Y. M. H. A., etc.) (38), .....	3,757
Conferences for representative women (21), .....	1,665
Lectures to Rotary Clubs (9), .....	535
Lectures to Kiwanis Clubs (4), .....	305
State Women's Social Hygiene Conference, .....	502
Public Health Institute, .....	589
Unclassified lectures (36), .....	2,663

#### LAW ENFORCEMENT ACTIVITIES.

While the control of prostitutes is considered a health activity, for it is one of the most effective means to control the spread of venereal diseases, the Bureau has not been active in this work because of the services of the personnel from the Interdepartmental Social Hygiene Board referred to above.

The law enforcement activities of the Bureau have been confined to encouraging local boards of health to "investigate all cases that are not under the care of reputable physicians and to ascertain so far as is possible all sources of infection and exposures to the same," as required by Section 5, of Chapter 253, P. L. 1918. The Bureau adopted two methods for inducing the adoption of this important work. The first method was a series of local demonstrations intended to show the value of a medical case worker in carrying out the provision of Section 5 of the act. A field agent of the Bureau was assigned first to Plainfield and then to the Oranges and is now in Camden; and as a result of the demonstration, the city of Plainfield has appointed a medical case

worker on the staff of the local board of health, and the municipalities comprising the group called the Oranges have joined in financing the employment of a common medical case worker. The demonstration in Camden has just been begun.

The second method of encouraging the work has been by direct suggestion to the local health boards. The Bureau has pointed out the legal authority for the control of delinquent infectious cases; the duty imposed upon the local health boards by Chapter 253; called to the attention of local health boards cases of infectious venereal diseases reported from other States or from other municipalities in New Jersey. The Bureau is urging all of the important municipalities which have not already done so to appoint a medical case worker as a member of the staff of the local board of health; to investigate the source of infection and the exposure to all the known cases, those treated in public clinics as well as those cases reported as delinquent by practicing physicians; and to determine other foci of infection by the study of death and stillbirth records. It is the belief of public health authorities that such work will be effective in controlling venereal diseases and that without it the work cannot be successful.

## Report of Bureau of Vital Statistics.

DAVID S. SOUTH, CHIEF.

The Bureau of Vital Statistics was formed some forty-four years ago in conjunction with and as a part of the original State Board of Health. Records of births, marriages and deaths from 1848 to 1878 were received from the Secretary of State, who had been receiving from local officers each year lists of vital information concerning events which occurred in their several districts. These records and some four million others, which have been collected since 1878, are carefully preserved in the fireproof vaults of the Bureau. They are referred to daily by the searching force of the Bureau and other persons authorized to consult them for legal and genealogical purposes. Attention is called to the large number of searches made and certified copies issued by the Bureau. Approximately ten thousand searches are made annually for which some four thousand dollars in fees are collected. About half of the information furnished is for employment, enlistment, school and pension purposes for which the law does not require a fee.

Each year in the annual report is presented an increased amount of statistical data, which is first prepared monthly by careful tabulation and later fully compiled at the close of the year with the use of modern electrical tabulating machinery. It is felt that the charts and tables published are of inestimable value to health workers and many others who are making determined efforts to promote the public health.

In order to secure data which fairly depicts actual conditions, it is necessary that complete registration be obtained, and to secure correct registration it is essential that systematic efforts be made to prove that events are properly recorded. A monthly check is conducted in the Bureau for the betterment of birth



registration and one of a different nature to detect violations of the act governing the issuance of marriage licenses.

Each local registrar is required to present to the parents of each child whose birth is reported to him a certificate of elaborate design, setting forth the particulars of the event. As life tenure does not accompany the appointment to the position of registrar, local officers are frequently changing and it is necessary that close supervision be exercised by the Bureau to the end that the objects of the law be accomplished. Forms are issued to local officers to accompany birth certificates, which form combines a graphic explanation of the future uses for which such certificates may be required with a space for making additions or corrections to the original record.

Each local officer is also required to keep a complete and accurate copy of all births and deaths which occur in the district over which he had jurisdiction. It is felt that, in addition to the events which actually occur therein, he should also have a record of births and deaths affecting residents of his district which occur in other localities. A bill to provide for this was introduced at the last session of the Legislature, but failed of passage.

The Bureau is considerably handicapped by not having sufficient clerical force to properly index the records to offset the errors occasioned by physicians, midwives and undertakers improperly reporting names, due to the difficult spellings thereof and their inability to understand informants of foreign extraction. It is estimated that the records could be completely cross-indexed in a very few years if \$5,000 were reserved for this purpose annually.

The following table is a summary of the records indexed, tabulated and permanently preserved during the past three years, together with the number of searches made and fees received therefor. Additional information is requested of approximately three thousand physicians, midwives, ministers and undertakers annually, in order to complete or correct certificates received. All the work outlined herein is carried on by a force of eleven employees including the Chief of the Bureau.

## GENERAL SUMMARY.

	1919.	1920.	1921.	Total.
Deaths registered, indexed and tabulated, .....	39,979	40,820	37,362	118,161
Births registered, indexed and tabulated, .....	70,935	76,431	78,172	225,538
Stillbirths registered, indexed and tabulated, .....	3,047	3,221	3,242	9,510
Marriages registered, indexed and tabulated, .....	29,281	31,327	27,815	88,423
Total records registered, tabulated and permanently preserved, .....	143,242	151,799	146,591	441,632
Certified copies issued and searches made for which fees were received, .....	4,722	4,664	4,081	13,467
Certified copies issued and searches made in pension cases for which no fees were received, .....	6,681	4,232	4,967	15,880
Fees returned to State Treasurer for certified copies and searches,	\$3,822.75	\$4,051.00	\$3,899.50	\$11,773.25

## TABLES—1921.

1. Births, marriages and deaths reported, with rates, 1879-1921.
2. Deaths by age periods, with percentage of each period of total deaths.
3. Deaths reported and death-rate from tuberculosis of lungs, 1900-1921.
4. Deaths of infants under five years of age and percentage of total deaths, 1904-1921.
5. Death rate of total population and of white and colored inhabitants by causes.
6. Percentage of deaths of each cause of total deaths and of sex of total.
7. Births in counties and cities by months.
8. Deaths in counties and cities by months.
9. Deaths by months by causes.
10. Deaths under one year of age by months and causes.
11. Deaths by causes, by days, weeks and months of the first year of life.
12. Births, marriages and deaths and infant deaths by counties, cities, boroughs and townships.
13. Deaths by counties and cities according to the Detailed International Classification.
14. Deaths by occupation, age groups and certain selected causes.

15. Deaths by causes and age periods, New Jersey, each county and the following municipalities (county figures include cities which follow):

Atlantic County—	Essex County—(Con.)	Monmouth County—
Atlantic City,	Nutley,	Asbury Park,
Hammonton.	Orange,	Long Branch,
Bergen County—	South Orange,	Red Bank
Englewood,	West Orange.	Morris County—
Garfield,	Gloucester County.	Dover,
Hackensack,	Hudson County—	Morristown.
Ridgewood,	Bayonne,	Ocean County.
Rutherford.	Guttenberg,	Passaic County—
Burlington County—	Harrison,	Clifton,
Burlington City.	Hoboken,	Passaic City,
Camden County—	Jersey City,	Paterson.
Camden City,	Kearny,	Salem County—
Gloucester.	Town of Union,	Salem City.
Cape May County.	West Hoboken,	Somerset County—
Cumberland County—	West New York.	North Plainfield,
Bridgeton,	Hunterdon County.	Somerville.
Millville,	Mercer County—	Sussex County.
Vineland.	Princeton,	Union County—
Essex County—	Trenton.	Elizabeth,
Belleville,	Middlesex County—	Plainfield,
Bloomfield,	New Brunswick,	Rahway,
East Orange,	Perth Amboy,	Summit,
Irvington,	Roosevelt,	Westfield.
Montclair,	South Amboy.	Warren County—
Newark,		Phillipsburg.

Note.—Additional charts and tables prepared by the Bureau of Vital Statistics appear in the Director's Report in the first pages of the volume.

TABLE 1.—POPULATION; BIRTHS, MARRIAGES AND DEATHS REPORTED WITH RATES PER 1,000 POPULATION.

YEAR.	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	1,150,592	23,680	20.59	7,963	14.08	18,967	16.47
1881	1,160,275	23,494	20.24	8,109	13.98	20,812	17.94
1882	1,189,658	23,108	19.42	8,837	14.86	26,959	21.82
1883	1,209,048	24,430	20.21	9,166	15.16	23,310	19.28
1884	1,248,224	25,293	20.20	8,868	14.37	21,716	17.40
1885	1,278,033	24,077	18.84	8,859	14.07	23,507	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	22.96	24,331	18.12
1888	1,375,227	28,074	20.41	16,023	23.31	27,173	19.76
1889	1,407,625	29,069	20.67	15,729	22.34	28,543	18.86
1890	1,441,017	30,103	20.80	15,564	21.60	28,830	19.90
1891	1,478,784	28,882	19.63	15,305	20.70	28,840	19.50
1892	1,511,063	30,627	20.26	16,082	21.28	32,685	21.62
1893	1,553,799	32,235	20.98	17,178	22.33	30,586	19.88
1894	1,573,373	33,362	21.33	16,245	20.58	30,004	19.09
1895	1,672,942	31,742	18.97	15,873	19.98	30,684	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	28,822	16.90
1898	1,810,908	32,515	17.96	13,213	14.89	27,337	15.11
1899	1,855,372	29,419	15.84	13,336	14.37	30,969	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	31,739	16.48
1902	1,967,893	35,116	17.84	18,150	18.45	31,319	15.91
1903	2,016,797	37,242	18.47	18,512	19.35	31,820	15.87
1904	2,058,909	38,731	18.82	18,919	19.38	35,298	17.14
1905	2,144,143	39,689	18.51	20,572	19.19	33,864	15.79
1906	2,196,238	42,677	19.43	21,580	19.65	35,670	16.24
1907	2,248,331	44,651	19.86	23,649	21.04	37,408	16.63
1908	2,300,427	47,405	20.61	26,155	22.74	35,597	15.47
1909	2,352,522	47,508	20.19	29,734	25.27	36,359	15.46
1910	2,537,167	53,942	21.26	27,912	25.60	39,494	15.57
1911	2,615,772	58,183	22.22	25,014	19.13	38,612	14.76
1912	2,694,377	60,073	22.30	26,821	19.91	37,772	14.02
1913	2,772,981	61,432	22.15	27,697	19.98	38,425	14.22
1914	2,851,586	65,403	22.94	28,528	20.01	39,967	14.02
1915	2,877,532	66,479	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	2,994,193	75,309	24.98	30,080	19.94	43,532	14.44
1918	3,000,371	74,549	24.20	23,969	15.58	60,852	19.75
1919	3,146,547	79,935	25.64	29,231	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

\* Estimated except for census years.

TABLE 2.—TOTAL DEATHS BY AGE PERIODS SHOWING PERCENTAGE OF TOTAL DEATHS—1921.

AGE PERIODS.	1921		Percentage of total.
	Number	Percentage	
Under 1 year.	37,802	37.3	13.4
1 year.	8,081	5.1	2.8
2 years.	8,081	5.1	3.4
3 years.	3,303	2.2	1.1
4 years.	2,800	1.8	0.8
Under 5 years.	8,047	5.1	21.5
5 to 9.	1,044	0.7	2.8
10 to 19.	1,460	0.9	3.9
20 to 29.	2,204	1.4	5.3
30 to 39.	2,814	1.8	7.3
40 to 49.	3,026	2.0	9.7
50 to 59.	4,365	2.8	12.2
60 to 69.	5,547	3.6	14.9
70 to 79.	6,121	4.0	13.7
80 to 89.	2,384	1.5	6.9
90 and over.	351	0.2	1.0
Unknown.	2	0.0	.....
<b>Total.</b>	<b>100,000</b>	<b>100.0</b>	

TABLE 3.—DEATHS FROM TUBERCULOSIS OF LUNGS AND ACUTE MILIARY TUBERCULOSIS IN NEW JERSEY—1900 TO 1921.

YEAR.	Population.	Deaths.	Death rate per 100,000 Population.
1900.	1,883,689	3,514	186.6
1901.	1,925,781	3,257	169.1
1902.	1,967,803	3,015	153.2
1903.	2,016,797	3,350	167.6
1904.	2,068,960	3,370	173.2
1905.	2,144,143	3,857	177.3
1906.	2,197,238	3,654	166.4
1907.	2,248,331	3,749	166.7
1908.	2,309,427	3,616	157.2
1909.	2,362,522	3,808	153.4
1910.	2,537,167	3,902	153.8
1911.	2,615,772	3,958	152.4
1912.	2,694,377	3,708	137.6
1913.	2,772,981	3,683	132.8
1914.	2,851,586	3,858	135.2
1915.	2,877,532	3,917	136.1
1916.	2,948,016	3,844	130.4
1917.	3,014,193	4,146	137.5
1918.	3,083,371	4,353	141.3
1919.	3,146,547	3,495	111.1
1920.	3,187,797	3,246	101.8
1921.	3,251,494	2,698	82.9

TABLE 4.—NUMBER OF DEATHS AT ALL AGES, UNDER ONE YEAR OF AGE AND UNDER FIVE YEARS OF AGE, AND THEIR PERCENTAGE OF THE TOTAL.

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.	36,670	7,773	21.2	11,248	30.7
1907.	37,498	7,732	20.7	10,867	29.0
1908.	35,597	7,523	21.2	10,869	30.5
1909.	38,359	7,693	20.1	11,137	29.0
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	10,300	27.3
1913.	39,425	7,542	19.1	10,686	27.1
1914.	39,967	7,431	18.6	10,273	25.7
1915.	39,435	7,077	17.9	9,828	24.9
1916.	43,376	7,348	16.9	11,183	25.8
1917.	43,532	7,582	17.4	10,267	23.6
1918.	60,552	8,372	13.8	13,709	22.6
1919.	39,979	6,111	15.3	8,661	21.7
1920.	40,820	6,672	16.3	8,569	21.2
1921.	37,362	5,773	15.4	8,047	21.5

TABLE 5.—DEATHS IN NEW JERSEY PER 100,000 POPULATION, TOTAL, AND BY WHITE AND COLORED INHABITANTS, 1921.

Abridged International List Number.	CAUSE OF DEATH.	Total deaths per 100,000 population.	White deaths per 100,000 white population.	Colored deaths per 100,000 colored population.
1	Typhoid fever, .....	4.4	4.3	7.3
2	Typhus fever, .....			
3	Malaria, .....	3	3	0
4	Smallpox, .....			
5	Measles, .....	3.1	3.2	2.4
6	Scarlet fever, .....	7.0	7.2	1.6
7	Whooping cough, .....	9.8	8.7	37.3
8	Diphtheria and croup, .....	18.3	18.6	9.7
9	Influenza, .....	8.6	8.2	19.5
10	Asiatic cholera, .....			
11	Cholera nostras, .....		0	0
12	Other epidemic diseases, .....	3.3	3.3	3.2
13	Tuberculosis of the lungs, .....	82.9	75.5	272.2
14	Tuberculous meningitis, .....	4.7	4.4	12.1
15	Other forms of tuberculosis, .....	5.2	4.6	21.1
16	Cancer and other malignant tumors, .....	92.6	93.2	77.1
17	Simple meningitis, .....	5.1	5.9	8.1
18	Cerebral hemorrhage and softening, .....	91.0	90.8	96.6
19	Organic diseases of the heart, .....	153.3	151.0	210.4
20	Acute bronchitis, .....	8.0	7.8	13.8
21	Chronic bronchitis, .....	3.9	4.9	1.6
22	Pneumonia, .....	59.7	57.0	127.5
23	Other diseases of the respiratory system (tuberculosis excepted), .....	50.2	49.2	102.3
24	Diseases of the stomach (cancer excepted), .....	9.0	8.5	20.3
25	Diarrhea and enteritis (under 2 years), .....	44.2	42.6	85.3
26	Appendicitis and typhlitis, .....	11.2	11.8	13.0
27	Hernia, intestinal obstruction, .....	8.2	8.0	12.1
28	Cirrhosis of the liver, .....	7.0	7.1	3.2
29	Acute nephritis and Bright's disease, .....	99.5	96.7	169.0
30	Noneancerous tumors and other diseases of the female genital organs, .....	5.3	4.5	27.6
31	Puerperal septicæmia (puerperal fever, peritonitis), .....	5.3	4.8	10.5
32	Other puerperal accidents of pregnancy and labor, .....	8.8	8.5	14.6
33	Congenital debility and malformations, .....	64.8	62.8	115.3
34	Senility, .....	6.7	6.6	9.7
35	Suicide, .....	12.8	15.0	7.3
36	Violent deaths (suicide excepted), .....	68.6	67.8	88.5
37	Other diseases, .....	182.2	178.7	272.2
38	Unknown or ill-defined diseases, .....	1.6	1.6	1.6
	Total, .....	1149.0	1120.1	1884.3

TABLE 6.—PERCENTAGE OF DEATHS BY CAUSES TO TOTAL DEATHS AND BY SEX TO TOTAL, 1921.

Abridged International List Number.	CAUSE OF DEATH.	Percentage of total.	Males—Percentage of total.	Females—Percentage of total.
1	Typhoid fever, .....	.4	54.8	45.2
2	Typhus fever, .....			
3	Malaria, .....	.0	.0	.0
4	Smallpox, .....			
5	Measles, .....	.3	58.0	41.4
6	Scarlet fever, .....	.6	47.8	52.2
7	Whooping cough, .....	.9	48.1	51.9
8	Diphtheria and croup, .....	1.8	51.9	48.1
9	Influenza, .....	.8	48.0	52.0
10	Asiatic cholera, .....			
11	Cholera nostras, .....	.0	.0	.0
12	Other epidemic diseases, .....	.3	52.7	47.3
13	Tuberculosis of the lungs, .....	7.2	56.6	43.4
14	Tuberculous meningitis, .....	.4	54.8	45.2
15	Other forms of tuberculosis, .....	.5	50.0	50.0
16	Cancer and other malignant tumors, .....	8.1	42.7	57.3
17	Simple meningitis, .....	.5	55.8	44.4
18	Cerebral hemorrhage and softening, .....	7.9	44.7	55.3
19	Organic diseases of the heart, .....	13.3	47.7	52.3
20	Acute bronchitis, .....	.7	47.5	52.5
21	Chronic bronchitis, .....	.3	40.6	59.4
22	Pneumonia, .....	5.2	55.7	44.3
23	Other diseases of the respiratory system (tuberculosis excepted), .....	4.4	52.4	47.6
24	Diseases of the stomach (cancer excepted), .....	.8	55.8	44.2
25	Diarrhea and enteritis (under 2 years), .....	3.8	54.9	45.1
26	Appendicitis and typhlitis, .....	1.0	56.0	44.0
27	Hernia, intestinal obstruction, .....	.7	40.1	59.9
28	Cirrhosis of the liver, .....	.6	57.6	42.4
29	Acute nephritis and Bright's disease, .....	8.7	47.2	52.8
30	Noneancerous tumors and other diseases of the female genital organs, .....	.5		100.0
31	Puerperal septicæmia (puerperal fever, peritonitis), .....	.5		100.0
32	Other puerperal accidents of pregnancy and labor, .....	.8		100.0
33	Congenital debility and malformations, .....	5.6	56.5	43.5
34	Senility, .....	1.6	55.5	44.5
35	Suicide, .....	1.1	74.6	25.1
36	Violent deaths (suicide excepted), .....	6.0	71.4	28.6
37	Other diseases, .....	15.8	52.5	47.5
38	Unknown or ill-defined disease, .....	.1	61.1	38.9
	Total, .....	100.0	51.1	48.9



TABLE 9.—TOTAL DEATHS IN NEW JERSEY BY MONTHS AND CAUSES OF DEATHS, 1921.

Table with 13 columns (months) and rows for various causes of death including Typhoid fever, Typhus fever, Measles, Scarlet fever, Whooping cough, Diphtheria and croup, Influenza, Asiatic cholera, Cholera nostras, Other epidemic diseases, Tuberculous meningitis, Cancer and other malignant tumors, Simple meningitis, Other diseases of the brain, Organic diseases of the heart, Acute bronchitis, Chronic bronchitis, Pneumonia, Ischaemic diseases of the respiratory system, Diseases of the stomach, Diarrhoea and enteritis, Appendicitis and typhlitis, Cirrhosis of the liver, Acute nephritis and Bright's disease, Non-cancerous tumors and other diseases of the female genital organs, Infantile septicemia, Other puerperal accidents, Congenital debility and malformations, Senility, Suicide, Violent deaths, Other diseases, and Unknown or ill-defined diseases.

MONTH OF DEATH.

CAUSE OF DEATH.

TABLE 10.—DEATHS UNDER ONE YEAR OF AGE IN NEW JERSEY BY MONTHS AND CAUSES OF DEATH, 1921.

Table with 13 columns (months) and rows for causes of death including Typhoid fever, Measles, Scarlet fever, Whooping cough, Diphtheria and croup, Infantile septicemia, Asiatic cholera, Other epidemic diseases, Tuberculous meningitis, Diseases of the stomach, Diarrhoea and enteritis, Appendicitis and typhlitis, Cirrhosis of the liver, Acute nephritis and Bright's disease, Non-cancerous tumors and other diseases of the female genital organs, Infantile septicemia, Other puerperal accidents, Congenital debility and malformations, Senility, Suicide, Violent deaths, Other diseases, and Unknown or ill-defined diseases.

MONTH OF DEATH.

CAUSE OF DEATH.

Total.

TABLE 11.—DEATHS IN NEW JERSEY ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATHS BY SUBDIVISION OF DAYS, WEEKS AND MONTHS OF THE FIRST YEAR OF LIFE (STILLBIRTHS EXCLUDED), 1921.

CAUSE OF DEATH.	AGE UNDER 1 YEAR, IN COMPLETED DAYS, WEEKS AND MONTHS.														
	DAYS.			WEEKS.			MONTHS.								
	Under 1 year.	Under 1.	One.	Two.	3 to 6.	Under 1.	One.	Two.	Three.	Under 1.	One.	Two.	3 to 6.	6 to 8.	9 to 11.
1 Typhoid fever.	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2 Typhoid fever.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Malaria.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4 Smallpox.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5 Measles.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 Scarlet fever.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7 Diphtheria and croup.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8 Diphtheria and croup.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 Influenza.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 Acute cholera.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 Cholera nostris.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 Typhoid fever.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Typhoid fever.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Tuberculous meningitis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15 Other forms of tuberculosis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16 Cancer and other malignant tumors.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17 Simple meningitis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 Organic degeneration and softening of the brain.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19 Organic degeneration and softening of the brain.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20 Acute bronchitis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21 Chronic bronchitis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22 Pneumonia.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23 Other diseases of the respiratory system (tuberculosis excepted).	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24 Diseases of the stomach (cancer excepted).	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25 Diarrhea and enteritis (under 2 years).	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26 Appendicitis and typhlitis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27 Intestinal obstruction.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28 Intestinal obstruction.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29 Acute nephritis and Bright's disease.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30 Noncancerous tumors and other diseases of the female genital organs.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31 Puerperal septicemia (puerperal fever, puerperitis).	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32 Congenital debility and malformations.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33 Congenital debility and malformations.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34 Senility.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35 Suicide.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36 Other diseases.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37 Unknown or ill-defined diseases.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total.	5772	9771	2966	2288	470	1971	3351	274	230	2839	490	3090	895	658	504

TABLE 12.—BIRTHS, MARRIAGES AND DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS—1921.

NAME OF PLACE.	ATLANTIC COUNTY.			
	Births.	Marriages.	Deaths.	Deaths under one year.
Absecon City.	10	11	22	3
Atlantic City.	1100	719	780	93
Buenos Vista Township.	39	22	29	9
E. Atlantic City.	4	..	..	..
Egg Harbor City.	78	47	41	7
Egg Harbor Township.	42	8	27	1
Folsom Borough.	3	1	4	..
Galloway Township.	61	4	21	3
Hamilton Township.	4	..	..	..
Hammoncton Town.	191	64	77	11
Liawood Borough.	12	9	14	1
Longport Borough.	1	1	1	..
Margate City.	4	4	7	..
Mullica Township.	25	5	11	2
Northfield City.	29	..	10	1
Pleasantville City.	130	71	83	7
Pt. Republic City.	4	2	8	..
Somers Point City.	14	3	11	..
Ventnor City.	41	10	31	1
Weymouth Township.	18	1	5	1
Total.	1,912	999	1,211	138

NAME OF PLACE.	BERGEN COUNTY.			
	Births.	Marriages.	Deaths.	Deaths under one year.
Allendale Borough.	20	5	15	2
Alpine Borough.	12	2	5	1
Bergenfield Borough.	53	21	36	6
Bogota Borough.	80	42	59	8
Carlstadt Borough.	129	40	57	8
Cliffside Park Borough.	177	32	83	20
Cluiter Borough.	29	..	22	7
Cresskill Borough.	33	7	9	3
Demarest Borough.	11	4	9	3
Dumont Borough.	47	10	33	4
East Paterson Borough.	68	17	24	13
East Rutherford Borough.	129	49	54	6
Edgewater Borough.	55	28	37	6
Emerson Borough.	19	7	12	2
Englewood City.	263	101	133	26
Englewood Cliffs Borough.	4	..	3	..
Fairview Borough.	188	46	59	9
Fort Lee Borough.	124	61	76	5
Franklin Township.	42	15	23	1
Garfield Borough.	614	111	176	44
Glen Rock Borough.	38	11	21	2
Hackensack Town.	454	214	220	25
Harrington Park Borough.	12	8	7	..
Hasbrouck Heights Borough.	43	14	40	7
Hayworth Borough.	12	1	8	1
Hilksdale Township.	38	6	31	3
Hohokus Borough.	11	10	16	1
Hohokus Township.	51	15	19	3
Leonia Borough.	54	21	28	4
Little Ferry Borough.	48	13	25	3
Lodi Borough.	273	74	75	24
Lodi Township.	28	9	9	2
Lyndhurst Township.	276	61	92	15
Maywood Borough.	25	12	26	1
Midland Township.	21	16	31	2
Midland Park Borough.	73	23	31	11
Montvale Borough.	14	2	7	..
Moonachie Borough.	37	10	9	4
North Arlington Borough.	59	4	18	5
Northvale Borough.	18	11	7	..
Norwood Borough.	18	2	8	1
Oakland Borough.	14	3	6	1
Oak Tappan Borough.	4	3	4	1
Oracell Boro.	40	7	20	..
Palisade Park Borough.	38	12	20	1
Palisade Park Borough.	69	17	36	5

## BERGEN COUNTY—Continued.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Park Ridge Borough, .....	48	23	33	4
Ramsey Borough, .....	32	22	33	3
Ridgefield Borough, .....	32	9	16	1
Ridgefield Park Borough, .....	125	53	92	12
Ridgewood Village, .....	109	59	73	2
Riverside Borough, .....	53	11	14	2
Rivervale Township, .....	6	..	..	..
Rutherford Borough, .....	153	56	83	3
Saddle River Borough, .....	5	3	3	..
Saddle River Township, .....	80	12	35	5
Tenack Township, .....	84	17	52	4
Tenady Borough, .....	67	32	47	6
Teterboro Borough, .....	1	..	..	..
Upper Saddle River Borough, .....	3	..	1	..
Waldwick Borough, .....	41	5	23	2
Wallington Borough, .....	215	5	48	11
Washington Township, .....	3	..	1	..
Westwood Borough, .....	40	19	33	3
Woodcliff Lake Borough, .....	14	3	10	1
Woodbridge Borough, .....	47	3	19	2
Total, .....	5,041	1,505	2,825	354

## BURLINGTON COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bass River Township, .....	15	3	8	2
Beverly City, .....	82	30	45	6
Beverly Township, .....	43	9	41	2
Bordentown City, .....	82	36	75	7
Bordentown Township, .....	8	..	12	1
Burlington City, .....	243	96	156	23
Burlington Township, .....	31	1	19	4
Chester Township, .....	154	53	84	9
Chesterfield Township, .....	25	9	21	2
Cinnaminson Township, .....	27	3	12	5
Delran Township, .....	38	5	22	2
Easthampton Township, .....	5	1	4	1
Evesham Township, .....	30	5	22	1
Feldsboro Borough, .....	10	1	11	1
Florence Township, .....	217	37	69	15
Lumberton Township, .....	44	..	22	7
Mansfield Township, .....	20	6	26	3
Medford Township, .....	61	17	40	11
Mount Laurel Township, .....	42	1	13	3
New Hanover Township, .....	99	12	57	9
Northampton Township, .....	134	45	113	14
North Hanover Township, .....	15	6	15	2
Palmyra Township, .....	83	20	36	6
Pemberton Borough, .....	3	10	11	1
Pemberton Township, .....	27	9	24	2
Rivervale Township, .....	184	57	73	15
Riverton Borough, .....	34	21	26	3
Shamong Township, .....	73	2	7	..
Southampton Township, .....	40	14	25	3
Springfield Township, .....	11	3	15	2
Tabernacle Township, .....	6	3	3	..
Washington Township, .....	13	1	8	1
Westhampton Township, .....	14	1	4	1
Willingboro Township, .....	16	..	7	4
Woodland Township, .....	11	4	6	1
Wrightstown Borough, .....	6	7	4	..
Total, .....	1,986	533	1,198	186

## CAMDEN COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Audubon Borough, .....	86	22	62	9
Barrington Borough, .....	24	6	16	2
Berlin Township, .....	62	30	29	5
Camden City, .....	3,674	909	1,513	252
Centre Township, .....	147	20	58	10
Chesilhurst Borough, .....	7	2	5	1
Clementon Township, .....	..	12	48	7
Collingswood Borough, .....	148	33	103	9
Delaware Township, .....	52	2	33	5
Gloucester City, .....	274	183	177	32
Gloucester Township, .....	73	15	47	4
Haddonfield Borough, .....	98	36	79	8
Haddon Heights Borough, .....	34	31	29	3
Haddon Township, .....	63	16	25	3
Laurel Springs Borough, .....	10	9	17	..
Magnolia Borough, .....	25	4	17	4
Merchantville Borough, .....	63	33	37	4
Oaklyn Borough, .....	26	4	12	..
Pensauken Township, .....	142	19	73	13
Tavistock Boro., .....	..	..	..	..
Voorhees Township, .....	25	8	15	1
Waterford Township, .....	46	8	30	..
Winslow Township, .....	120	7	40	7
Wood Lynn Borough, .....	33	7	11	2
Total, .....	4,731	1,548	2,478	418

## CAPE MAY COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Avalon Borough, .....	3	1	1	..
Cape May City, .....	45	43	41	3
Cape May Point Borough, .....	1	1	5	1
Dennis Township, .....	33	7	30	2
Lower Township, .....	20	4	12	1
Middle Township, .....	46	21	43	3
North Wildwood City, .....	78	8	17	2
Ocean City, .....	70	34	47	9
Sea Isle City, .....	18	11	12	..
South Cape May Borough, .....	..	..	..	..
Stone Harbor Borough, .....	4	1	1	..
Upper Township, .....	18	11	26	2
West Cape May Borough, .....	17	4	..	..
West Wildwood Borough, .....	..	..	1	..
Wildwood City, .....	62	60	39	2
Wildwood Crest Borough, .....	3	3	3	..
Woodbine Borough, .....	36	7	5	2
Total, .....	454	216	201	27

## CUMBERLAND COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bridgeton City, .....	302	153	246	26
Commercial Township, .....	47	18	59	2
Deerfield Township, .....	71	8	38	7
Downe Township, .....	17	5	19	1
Fairfield Township, .....	45	11	25	1
Greenwich Township, .....	19	6	10	1
Hopewell Township, .....	42	7	21	..
Landis Township, .....	131	37	78	9
Lawrence Township, .....	33	10	22	1
Maurice River Township, .....	36	7	22	4
Millville City, .....	354	130	180	23
Stow Creek Township, .....	28	1	13	..
Vineland Borough, .....	209	119	98	17
Total, .....	1,334	512	802	97



## ESSEX COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bellefleur Town, .....	142	102	142	25
Bloomfield Town, .....	457	177	224	21
Caldwell Borough, .....	75	45	55	3
Caldwell Township, .....	15	4	7	..
Cedar Grove Township, .....	29	3	18	..
East Orange City, .....	937	275	508	40
Essex Falls Borough, .....	12	1	5	..
Glen Ridge Borough, .....	77	31	42	2
Irington Town, .....	512	145	252	22
Ivington Township, .....	19	1	20	..
Millburn Township, .....	114	29	31	5
Montclair Town, .....	594	204	200	33
Newark City, .....	11,031	4,417	4,840	821
North Caldwell Borough, .....	3	..	9	..
Nutley Town, .....	296	63	106	17
Orange City, .....	849	352	400	69
Roseland Borough, .....	21	2	3	1
South Orange Village, .....	138	67	87	5
South Orange Township, .....	117	37	61	6
Verona Borough, .....	57	22	36	2
West Caldwell Borough, .....	9	2	15	..
West Orange Town, .....	353	51	138	18
Total, .....	16,166	6,032	7,303	1,092

## GLOUCESTER COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Clayton Borough, .....	42	13	43	..
Deptford Township, .....	58	5	24	6
East Greenwich Township, .....	28	7	31	3
Elk Township, .....	25	1	7	2
Franklin Township, .....	97	16	45	3
Glassboro Township, .....	79	29	30	7
Greenwich Township, .....	50	3	17	1
Harrison Township, .....	41	9	21	2
Logan Township, .....	28	7	10	1
Mantua Township, .....	41	19	29	4
Monroe Township, .....	56	18	48	9
National Park Borough, .....	31	6	16	3
Paulsboro Borough, .....	152	23	48	12
Pitman Borough, .....	55	25	44	..
South Harrison Township, .....	7	2	9	3
Swedesboro Borough, .....	61	13	38	4
Washington Township, .....	29	6	21	2
Wenonah Borough, .....	19	4	16	..
West Deptford Township, .....	53	5	25	8
Westville Borough, .....	12	..	12	2
Woodbury City, .....	126	58	87	6
Woodbury Heights Borough, .....	9	2	7	2
Woolwich Township, .....	7	..	6	4
Total, .....	1,138	274	652	89

## HUDSON COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bayonne City, .....	2,410	558	830	191
East Newark Borough, .....	52	30	28	5
Guttenberg Town, .....	146	15	73	14
Harrison Town, .....	452	119	181	32
Hoboken City, .....	1,729	1,189	816	114
Jersey City, .....	7,916	2,919	3,719	658
Kearny Town, .....	579	166	226	33
North Bergen Township, .....	572	182	235	35
Secaucus Borough, .....	95	65	42	6
Town of Union, .....	354	297	223	31
Weehawken Township, .....	268	137	147	12
West Hoboken Town, .....	793	453	390	42
West New York Town, .....	775	423	286	51
Total, .....	16,182	6,539	7,181	1,224

## HUNTERDON COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Alexandria Township, .....	21	3	13	1
Bethlehem Township, .....	15	7	11	1
Bloomsbury Borough, .....	8	4	9	1
Callion Borough, .....	5	4	4	..
Clinton Town, .....	13	11	12	..
Clinton Township, .....	36	11	36	3
Delaware Township, .....	29	6	27	2
East Amwell Township, .....	15	6	22	3
Flemington Borough, .....	42	21	41	1
Franklin Township, .....	18	4	21	1
Franktown Borough, .....	15	5	10	..
Glen Gardner Borough, .....	7	4	9	1
Hampton Borough, .....	22	7	18	1
High Bridge Borough, .....	35	14	19	..
Holland Township, .....	23	1	12	2
Kingwood Township, .....	29	5	14	1
Lambertville City, .....	112	38	69	8
Lebanon Township, .....	19	5	20	6
Milford Borough, .....	10	7	7	..
Raritan Township, .....	46	1	19	..
Readington Township, .....	55	16	38	3
Stockton Borough, .....	17	9	9	1
Tewksbury Township, .....	13	6	18	3
Union Township, .....	39	3	19	6
West Amwell Township, .....	12	1	9	3
Total, .....	657	189	486	49

## MERCER COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
East Windsor Township, .....	2	2	4	..
Ewing Township, .....	125	8	43	31
Hamilton Township, .....	417	53	180	5
Hightstown Borough, .....	41	25	35	5
Hopewell Borough, .....	24	13	23	4
Hopewell Township, .....	51	4	33	5
Lawrence Township, .....	69	12	53	6
Pennington Borough, .....	19	7	27	5
Princeton Borough, .....	87	51	85	7
Princeton Township, .....	57	5	11	2
Trenton City, .....	3,299	1,135	1,318	248
Washington Township, .....	29	..	16	6
West Windsor Township, .....	22	5	8	..
Total, .....	4,156	1,320	1,836	328

## MIDDLESEX COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Cranbury Township, .....	28	10	22	3
Dunellen Borough, .....	81	21	44	5
East Brunswick Township, .....	41	7	12	5
Helmetta Borough, .....	28	11	8	1
Highland Park Borough, .....	120	26	49	5
Jamesburg Borough, .....	46	22	26	5
Madison Township, .....	44	6	25	6
Metuchen Borough, .....	76	30	32	6
Middlesex Borough, .....	50	5	24	7
Milltown Borough, .....	83	15	35	4
Monroe Township, .....	39	1	15	4
New Brunswick City, .....	991	324	433	69
North Brunswick Township, .....	38	12	17	..
Perth Amboy City, .....	1,379	359	506	115
Piscataway Township, .....	128	13	55	9
Plainboro Township, .....	3	3	3	..
Raritan Township, .....	113	9	43	9
Roosevelt Borough, .....	374	60	80	26
Sarreville Borough, .....	250	46	83	19
South Amboy City, .....	196	40	99	18
South Brunswick Township, .....	31	11	22	3
South River Borough, .....	264	12	83	18
Spotswood Borough, .....	17	6	8	..
Woodbridge Borough, .....	482	40	146	36
Total, .....	4,918	1,124	1,865	372

## MONMOUTH COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Allenhurst Borough, .....	15	9	22	1
Allentown Borough, .....	15	9	22	1
Asbury Park City, .....	267	202	178	14
Atlantic Township, .....	10	2	19	1
Atlantic Highlands Borough, .....	29	24	50	3
Avon Borough, .....	18	11	9	1
Belmar Borough, .....	80	27	28	6
Bradley Beach Borough, .....	66	18	35	2
Brielle Borough, .....	9	8	7	2
Deal Borough, .....	13	8	8	1
Englestown Township, .....	35	20	24	4
Englishtown Borough, .....	11	8	10	1
Fair Haven Borough, .....	27	14	18	2
Farmingdale Borough, .....	19	7	14	1
Freehold Borough, .....	97	44	19	3
Freehold Township, .....	23	4	3	4
Highlands Borough, .....	52	24	25	9
Holmdel Township, .....	21	3	14	1
Howell Township, .....	43	17	30	4
Keansburg Borough, .....	35	21	22	4
Keyport Borough, .....	84	71	62	4
Long Branch City, .....	338	165	183	25
Manalapan Township, .....	36	14	17	2
Manasquan Borough, .....	36	16	23	2
Marlboro Township, .....	22	14	21	3
Matawan Borough, .....	40	17	35	3
Matawan Township, .....	50	5	30	3
Middletown Township, .....	108	38	85	14
Milstone Township, .....	26	3	7	1
Monmouth Beach Borough, .....	2	1	1	1
Neptune Township, .....	152	57	115	14
Neptune City Borough, .....	9	1	7	1
Ocean Township, .....	18	9	42	1
Oceanport Borough, .....	10	8	11	1
Raritan Township, .....	44	2	20	1
Red Bank Borough, .....	218	109	123	12
Rumson Borough, .....	29	12	21	1
Sea Bright Borough, .....	22	4	10	1
Sea Girt Borough, .....	1	2	1	1
Shrewsbury Township, .....	34	7	16	3
Spring Lake Borough, .....	47	14	24	3
Upper Freehold Township, .....	51	5	23	7
Wall Township, .....	59	25	57	3
West Long Branch Borough, .....	5	6	7	1
Total, .....	2,279	1,071	1,545	166

## MORRIS COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Boonton Town, .....	11	44	88	10
Boonton Township, .....	15	10	3	3
Butler Borough, .....	88	24	35	3
Chatham Borough, .....	50	16	29	3
Chatham Township, .....	20	4	9	3
Chester Township, .....	27	5	21	3
Denville Township, .....	13	3	11	15
Dover Town, .....	228	108	119	15
Florham Park Borough, .....	3	3	15	10
Hanover Township, .....	99	35	91	4
Jefferson Township, .....	28	1	22	4
Madison Borough, .....	125	43	63	4
Mendham Borough, .....	18	12	20	3
Mendham Township, .....	13	2	10	2
Montville Township, .....	43	6	35	6
Morristown Town, .....	299	131	186	26
Morris Township, .....	32	3	30	4
Mount Arlington Borough, .....	21	4	14	2
Mount Olive Township, .....	73	17	18	5
Netcong Borough, .....	50	13	31	3
Passaic Township, .....	61	13	30	5
Pequanock Township, .....	64	12	45	9
Randolph Township, .....	69	34	35	5
Rockaway Borough, .....				

## MORRIS COUNTY--Continued.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Rockaway Township, .....	73	6	33	5
Rockbury Township, .....	56	17	32	6
Washington Township, .....	33	9	30	1
Wharton Borough, .....	71	25	37	6
Total, .....	1,824	589	1,098	139

## OCEAN COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Barnegat City Borough, .....	1	1	1	1
Bay Head Borough, .....	5	4	4	1
Beach Haven Borough, .....	8	4	4	1
Beachwood Borough, .....	1	1	1	1
Berkeley Township, .....	15	3	5	1
Brick Township, .....	13	1	19	2
Dover Township, .....	42	32	30	4
Eagleswood Township, .....	8	7	2	2
Harvey Cedars Borough, .....	2	3	3	1
Island Heights Borough, .....	17	3	18	2
Jackson Township, .....	8	5	8	2
Lacey Township, .....	11	6	4	1
Lakehurst Borough, .....	129	73	99	13
Lakewood Township, .....	2	2	7	2
Lavalette Borough, .....	5	5	1	1
Little Egg Harbor Township, .....	2	2	7	2
Long Beach Township, .....	2	6	9	1
Manchester Township, .....	29	6	9	1
Mantoloking Borough, .....	2	2	2	1
Ocean Gate Borough, .....	4	4	2	1
Plumstead Township, .....	28	13	26	3
Point Pleasant Borough, .....	34	12	22	4
Point Pleasant Beach Borough, .....	31	14	10	4
Sea Side Heights Borough, .....	1	1	1	1
Seaside Park Borough, .....	2	1	1	1
Surf City Borough, .....	4	6	10	1
Stardford Township, .....	29	10	15	3
Tuckerton Borough, .....	13	8	9	1
Union Township, .....	444	210	314	44

## PASSAIC COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bloomingsdale Borough, .....	81	14	12	4
Clifton City, .....	668	143	252	45
Haledon Borough, .....	34	27	27	1
Hawthorne Borough, .....	115	42	77	14
Little Falls Township, .....	88	25	43	9
North Haledon Borough, .....	11	3	11	1
Passaic City, .....	1,837	717	1,624	228
Paterson City, .....	3,115	1,461	842	143
Pompton Lakes Borough, .....	42	14	17	2
Prospect Park Borough, .....	106	37	30	10
Ringwood Borough, .....	37	4	10	1
Totowa Borough, .....	39	2	2	1
Wanaque Borough, .....	85	20	30	4
Wayne Township, .....	38	16	18	3
West Milford Township, .....	54	4	27	6
West Paterson Borough, .....	80	15	28	2
Total, .....	6,886	2,561	2,862	476

SALEM COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Alloway Township, .....	28	6	18	2
Elmer Borough, .....	21	6	21	2
Elainboro Township, .....	2	1	4	1
Lower Alloways Creek Township, .....	20	2	12	1
Lower Penns Neck Township, .....	34	3	21	3
Mannington Township, .....	35	6	18	4
Oldmans Township, .....	29	6	13	1
Penns Grove Borough, .....	145	44	62	8
Pilesgrove Township, .....	42	2	12	4
Pittsgrove Township, .....	27	7	17	1
Quinton Township, .....	18	9	11	1
Salem City, .....	160	68	86	14
Upper Penns Neck Township, .....	129	6	36	9
Upper Pittsgrove Township, .....	42	10	22	2
Woodstown Borough, .....	32	13	39	3
Total, .....	762	189	392	56

SOMERSET COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Bedminster Township, .....	10	11	10	1
Bernards Township, .....	106	39	59	12
Bound Brook Borough, .....	109	54	83	7
Branchburg Township, .....	14	3	11	1
Bridgewater Township, .....	41	..	25	5
Far Hills Borough, .....	2	3	3	..
Franklin Township, .....	111	29	59	22
Hillsborough Township, .....	..	2	5	..
Milstone Borough, .....	26	6	22	1
Montgomery Township, .....	134	33	85	13
North Plainfield Borough, .....	17	7	10	1
North Plainfield Township, .....	24	3	12	1
Paspack-Gladstone Borough, .....	95	46	41	9
Raritan Borough, .....	13	5	7	..
Rocky Hill Borough, .....	125	82	91	8
Somerville Borough, .....	35	3	22	3
South Bound Brook Borough, .....	10	5	11	..
Warren Township, .....	..	..	..	..
Total, .....	1,022	349	548	86

SUSSEX COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Andover Borough, .....	13	8	3	..
Andover Township, .....	9	1	3	..
Branchville Borough, .....	10	12	11	..
Byram Township, .....	12	..	13	5
Frankford Township, .....	33	20	20	4
Frankford Township, .....	139	26	25	10
Franklin Borough, .....	5	..	5	1
Fredon Township, .....	13	2	7	1
Green Township, .....	28	23	13	1
Hamburg Borough, .....	11	7	7	2
Hampton Township, .....	19	3	6	1
Hardiston Township, .....	2	1	4	..
Hopatcong Borough, .....	13	2	1	..
Lafayette Township, .....	11	1	1	..
Montague Township, .....	8	62	63	3
Newton Township, .....	37	1	8	2
Ogdensburg Borough, .....	15	1	1	..
Sandryston Township, .....	16	3	11	1
Sparta Township, .....	38	12	20	1
Stanhope Borough, .....	25	11	13	4
Stillwater Township, .....	16	4	11	1
Sussex Borough, .....	33	22	15	1
Sussex Borough, .....	38	6	17	2
Vernon Township, .....	4	1	6	2
Walpack Township, .....	32	4	16	3
Wantage Township, .....	..	..	..	..
Total, .....	621	218	327	51

UNION COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Clark Township, .....	14	4	4	..
Cranford Township, .....	148	4	63	8
Elizabeth City, .....	2,374	796	916	5
Fanwood Borough, .....	11	..	5	147
Garwood Borough, .....	76	6	17	1
Hillside Township, .....	135	32	52	10
Kenilworth Borough, .....	50	5	11	2
Linden Borough, .....	72	17	14	45
Linden Township, .....	244	14	45	6
Mountainside Borough, .....	6	4	3	18
New Providence Borough, .....	16	3	16	..
New Providence Township, .....	27	8	16	3
Plainfield City, .....	16	16	12	3
Plainfield City, .....	732	243	311	35
Rahway City, .....	278	89	160	22
Roselle Borough, .....	172	38	59	14
Roselle Park Borough, .....	151	41	56	10
Scotch Plains Township, .....	37	17	30	5
Springfield Township, .....	33	11	25	..
Summit City, .....	213	76	114	10
Union Township, .....	93	11	54	8
Westfield Town, .....	186	67	92	7
Total, .....	5,288	1,533	2,138	317

WARREN COUNTY.

NAME OF PLACE.	Births.	Marriages.	Deaths.	Deaths under one year.
Alpha Borough, .....	81	14	15	6
Allamuchy Township, .....	18	3	3	1
Belvidere Town, .....	25	11	37	1
Blairstown Township, .....	18	11	18	2
Franklin Township, .....	39	7	21	8
Frelinghuysen Township, .....	10	6	12	2
Greenwich Township, .....	17	12	12	2
Hackettstown Town, .....	43	20	53	2
Hardwick Township, .....	11	..	9	3
Harmony Township, .....	38	..	3	15
Hope Township, .....	18	2	12	1
Independence Township, .....	18	4	14	4
Knowlton Township, .....	18	10	12	1
Lopatcong Township, .....	19	..	14	4
Mansfield Township, .....	25	12	15	1
Oxford Township, .....	42	9	23	..
Pahsiquary Township, .....	6	..	3	1
Phillipsburg Town, .....	307	143	195	35
Pohatcong Township, .....	29	..	20	4
Washington Borough, .....	48	37	42	2
Washington Township, .....	11	2	16	..
White Township, .....	30	4	6	2
Total, .....	961	314	572	86
State Total, .....	78,172	27,815	37,362	5,773















TABLE 13.—DEATHS IN COUNTIES AND CERTAIN SELECTED MUNICIPALITIES, FROM EACH WHICH FOLLOW:

	State Total.	Atlantic County.	Atlantic City.	Hammononton.	Bergen County.	Bagleywood.	Carhold.	Hickensack.	Ridgewood.	Hatherford.	Burlington County.	Burlington City.	Camden County.
Suicide by poison.	155	41	3	3	4	1	1	1			1		
Suicide by asphyxia.	156	95	6	5	4	1	1	1		1	1		
Suicide by hanging or strangulation.	157	89	2	1	6					1		1	
Suicide by drowning.	158	23	1	1	1						2	1	
Suicide by firearms.	159	123	6	3	12		3	2	1		7	1	6
Suicide by cutting or piercing instruments.	160	27			1						1		2
Suicide by jumping from a high place.	161	12			2						1		1
Suicide by crushing.	162	7											1
Other suicides.	163												
Poisoning by food.	164	19	1	1	3	1					2		2
Other acute poisonings.	165	65			1					1			7
Conflagration.	166	34											
Burns (conflagration excepted).	167	246	2	2	23		5			4			17
Absorption of deleterious gases (conflagration excepted).	168	127	6	4	5		1			2			3
Accidental drowning.	169	233	5	1	10	1	1	1		11	2		17
Traumatism by firearms.	170	34	1	1	1	1	1				1		10
Traumatism by cutting or piercing instruments.	171	7	1		1		1				1		1
Traumatism by fall.	172	362	10	5	12	1		2		1	8	2	23
Traumatism in mines and quarries.	173	4											
Traumatism by machines.	174	44	1	1			3				2		1
Traumatism by other crushing (vehicles, railroads, landslides, etc.).	175	755	34	12	61	3	5	3	4	2	21	2	43
Injuries by animals.	176	11									1		
Starvation.	177	2											
Excessive cold.	178	3											
Effects of heat.	179	31	1		1						3		3
Lightning.	180	9			2								
Electricity (lightning excepted).	181	14											
Homicide by firearms.	182	75	2	1	3			1	1		2		9
Homicide by cutting or piercing instruments.	183	22									1		1
Homicide by other means.	184	49	2	2	4			1	1	1			4
Fractures (cause not specified).	185	9									4		1
Other external violence.	186	80	1	1	5			1			4	1	7
Ill-defined organic disease.	187												
Sudden death.	188	2											
Cause of death not specified or ill-defined.	189	52	3	3	2			1			1		2
Total.	37362	1211	780	77	2325	133	176	220	73	83	1136	156	2478

CAUSE OF DEATH, DETAILED INTERNATIONAL LIST. (COUNTY FIGURES INCLUDE DISTRICTS 1921—Continued.)

	Camden City.	Gloucester City.	Cape May County.	Cumberland County.	Hydrington.	Milville.	Vineeland.	Essex County.	Belleville.	Bloomfield.	East Orange.	Ivington.	Montclair.	Newark.	Nutley.	Orange.	South Orange.	West Orange.	Gloucester County.	Hudson County.	Bayonne.	Guttenberg.	Harrison.	Hoboken.	Jersey City.
				2		1	9			1			1	5				1	1	7	1			1	3
							30						4	23					1	25	1			1	3
	1		1				17	1	1	1				11					20	1				2	11
	2						9	1	1	1				7					1	1				1	7
	3	1	1	1			16			1			1	10		2		1	2	19	2			1	11
	1						6						1	5						7					3
	1	1					6	1					1	3	1				1	7					4
	1						2							1	1				1	2					1
	1						21		3	2				1					2	2					2
	5	1					8		2	2				13					1	14				1	1
	15		3	5	1	2	39		2	2			4	6					10	22			1	1	4
	3						2		2	4				27	2	1		2	2	52	7		1		2
	3		2	2			1	40		2	4		1	28	1	2			1	16	3				2
	11	3	4	1			34	2		1			1	27	1				3	42	6			1	7
	3						2	2						1		1			1	2				1	19
	12	3	4	3	1	1	77	2	2	4	3		4	55	1	1			5	1					1
	1						7							5					1	7					8
	24	3	2	14	3	2	129	4	4	3	8		7	92	1	3	2	2	13	136	12	2	5	13	72
	1						1	1						1					1	1					
	3						6							6						1					
	1						3							2						3					2
	5	1					11	1	1	1				3		1				1					1
	1						8							7						1					10
	1						14							12						3					3
	1						2		1					1						6	2				2
	6						11						1	10						13					5
	1	1	1	1			7	1						6						6					1
	1513	177	291	802	246	180	98	7303	161	224	508	232	290	4840	106	400	87	133	652	7181	830	73	181	816	3719



TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS

	AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY.	Farmers.	Farm laborers.	Fishermen and oystermen.	Gardeners, florists, fruit growers and nurserymen.	Garden, greenhouse, orchard and nursery laborers.	Other agricultural and animal husbandry pursuits.	EXTRACTION OF MINERALS.	Foremen, overseers and inspectors.	Miners.	Quarry operatives.	MANUFACTURING AND MECHANICAL INDUSTRIES.
<b>Tuberculosis of lungs.</b>												
10 to 19.		1										
20 to 29.		7	1									
30 to 39.		7	1									
40 to 49.		2	2									
50 to 59.		2	2									
60 to 69.		4	2									
70 to 79.		2	2									
80 to 89.		1										
90 and over.												
<b>Totals.</b>		39	8	2	16		1			1		
<b>Cancer and other malignant tumors.</b>												
10 to 19.												
20 to 29.		1										
30 to 39.		7		1			1					
40 to 49.		19										
50 to 59.		22										
60 to 69.		20										
70 to 79.		15										
80 to 89.		1										
90 and over.												
<b>Totals.</b>		92	0	1	14		1			3	1	
<b>Diseases of the brain and of the organs of sense.</b>												
10 to 19.		1										
20 to 29.		1										
30 to 39.		3										
40 to 49.		5										
50 to 59.		5										
60 to 69.		33										
70 to 79.		17										
80 to 89.		26										
90 and over.		5										
<b>Totals.</b>		141	8	4	16		1			5	1	
<b>Diseases of the circulatory system.</b>												
10 to 19.			1	1								
20 to 29.		3										
30 to 39.		11										
40 to 49.		27										
50 to 59.		20										
60 to 69.		47										
70 to 79.		65										
80 to 89.		40										
90 and over.		11										
<b>Totals.</b>		199	19	8	28		9			2	1	

AND CERTAIN SELECTED CAUSES, NEW JERSEY, 1921.

	Apprentices to building and hand trades.	Bakers.	Blacksmiths, forgemen and hammermen.	Boilermakers.	Brick and stone masons.	Builders and building contractors.	Carpenters, coopers and cabinet makers.	Compositors, lithotypers and typesetters.	Dressmakers and seamstresses (not in factory).	Dyers.	Electricians and electrical engineers.	Engineers (stationary).	Enginemen.	Fitters, grinders, buffers and polishers (metal).	Firemen (except locomotive and fire department).	Furnace men, smelter men, heaters, pourers, etc.	Glassblowers.	Jewelers, watchmakers, goldsmiths and silver-smiths.	Laborers (general and not specified laborers).	
<b>Tuberculosis of lungs.</b>																				
10 to 19.	1																			
20 to 29.		2																		
30 to 39.		12																		
40 to 49.		3																		
50 to 59.		10																		
60 to 69.		2																		
70 to 79.		1																		
80 to 89.		2																		
90 and over.																				
<b>Totals.</b>	1	6	6	1	11	5	61	1	5	5	14	10	1	9	13	2	1	7	209	
<b>Cancer and other malignant tumors.</b>																				
10 to 19.																				
20 to 29.																				
30 to 39.		1																		
40 to 49.		1																		
50 to 59.		1																		
60 to 69.		4																		
70 to 79.		4																		
80 to 89.		1																		
90 and over.																				
<b>Totals.</b>		7	12	2	13	5	54	1	19	5	3	17	3	4	8		1	12	118	
<b>Diseases of the brain and of the organs of sense.</b>																				
10 to 19.																				
20 to 29.																				
30 to 39.		2																		
40 to 49.		1																		
50 to 59.		1																		
60 to 69.		5																		
70 to 79.		3																		
80 to 89.		1																		
90 and over.		2																		
<b>Totals.</b>		13	14	4	16	7	60		13	4	7	22		4	6		4	17	178	
<b>Diseases of the circulatory system.</b>																				
10 to 19.																				
20 to 29.																				
30 to 39.		1																		
40 to 49.		1																		
50 to 59.		4																		
60 to 69.		13																		
70 to 79.		19																		
80 to 89.		16																		
90 and over.		2																		
<b>Totals.</b>		19	19	6	33	25	119		2	18	13	42		8	6		7	3	25	243

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

Diseases of the nervous system and of the sensory system	Occupations									
	Building and hand trades.	Chemical industries.	Clay, glass and stone industries.	Iron, steel and other metal industries.	Lumber and furniture industries.	Textile industries.	Other industries.	Machinists, millwrights and toolmakers. Managers, superintendents and foremen (manufacturing).	Manufacturers and officials.	Mechanics (gunsmiths, locksmiths, wheelwrights, etc.).
Tuberculosis of lungs.	10 to 19, . . . . .	1					1	1		
	20 to 29, . . . . .						1	1		
	30 to 39, . . . . .	1					1	1		
	40 to 49, . . . . .						1	1		
	50 to 59, . . . . .						1	1		
	60 to 69, . . . . .						1	1		
	70 to 79, . . . . .						1	1		
	80 to 89, . . . . .						1	1		
	90 and over, . . . . .						1	1		
Totals, . . . . .		1					5	5		
Cancer and other malignant tumors.	10 to 19, . . . . .						1	1		
	20 to 29, . . . . .						1	1		
	30 to 39, . . . . .						1	1		
	40 to 49, . . . . .	1					1	1		
	50 to 59, . . . . .	1					1	1		
	60 to 69, . . . . .	1					1	1		
	70 to 79, . . . . .	1					1	1		
	80 to 89, . . . . .	1					1	1		
	90 and over, . . . . .						1	1		
Totals, . . . . .		3					5	5		
Diseases of the nervous system and of the sensory system	10 to 19, . . . . .						1	1		
	20 to 29, . . . . .						1	1		
	30 to 39, . . . . .						1	1		
	40 to 49, . . . . .						1	1		
	50 to 59, . . . . .						1	1		
	60 to 69, . . . . .						1	1		
	70 to 79, . . . . .						1	1		
	80 to 89, . . . . .						1	1		
	90 and over, . . . . .						1	1		
Totals, . . . . .		1					5	5		
Diseases of the sensory system	10 to 19, . . . . .						1	1		
	20 to 29, . . . . .						1	1		
	30 to 39, . . . . .						1	1		
	40 to 49, . . . . .						1	1		
	50 to 59, . . . . .						1	1		
	60 to 69, . . . . .						1	1		
	70 to 79, . . . . .						1	1		
	80 to 89, . . . . .						1	1		
	90 and over, . . . . .						1	1		
Totals, . . . . .		3					5	5		

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

Certain selected causes	Occupations																			
	Milliners and millinery dealers.	Molders, founders and casters.	Painters, glaziers, varnishers, enamelers, etc.	Paperhangers.	Pattern and model makers.	Photographers.	Plumbers and gas and steam fitters.	Pressmen (printing).	Roaders and slaters.	Semi-skilled operatives (Industry not stated).	Chemical industries.	Clay and tobacco factories.	Clay, glass and stone industries (except potteries).	Clothing industries.	Food industries.	Iron, steel and other metal industries.	Liquor and beverage industries.	Lumber and furniture industries.	Potteries.	
Tuberculosis of lungs.	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, . . . . .																			
Totals, . . . . .		2	11	28		2	1	19	11	3	22	4	19	10	15	8	32		2	19
Cancer and other malignant tumors.	10 to 19, . . . . .																			
	20 to 29, . . . . .																			
	30 to 39, . . . . .																			
	40 to 49, . . . . .	1							1	1	1	1								
	50 to 59, . . . . .								1	1	1	2								
	60 to 69, . . . . .	1							1	1	1									
	70 to 79, . . . . .	1							1	1	1									
	80 to 89, . . . . .	1							1	1	1									
	90 and over, . . . . .								1	1	1									
Totals, . . . . .		2	9	20	1		1	17	7		6	3	8	5	11	2	19	2	6	6
Diseases of the nervous system and of the sensory system	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, . . . . .																			
Totals, . . . . .		2	6	29	3		3	16	14	1	3		4	9	14	2	23		5	3
Diseases of the sensory system	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, . . . . .																			
Totals, . . . . .		7	12	38	1	3	1	18	14	12			8	15	19	8	47	1	3	9

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	Rubber industries.	Shoe factories.	Tanneries and other leather industries.	Textile industries.	Other industries.	Shoemakers and cobblers (not in factory).	Manufacturers.	Tailors and tailoresses.	Tinsmiths and copper-smiths.	Upholsterers.	Other manufacturing and mechanical industries.	TRANSPORTATION.
<b>Tuberculosis of lungs.</b>												
10 to 19, . . . . .	1	2	1	2	7	1	1	1	1	1	1	1
20 to 29, . . . . .	4	1	1	1	14	1	1	1	1	1	1	1
30 to 39, . . . . .	1	1	1	1	10	1	1	1	1	1	1	1
40 to 49, . . . . .	1	1	1	1	4	3	3	2	2	2	2	2
50 to 59, . . . . .	1	1	1	1	4	3	3	2	2	2	2	2
60 to 69, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
70 to 79, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
80 to 89, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
90 and over, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>10</b>	<b>1</b>	<b>6</b>	<b>36</b>	<b>43</b>	<b>5</b>	<b>9</b>	<b>12</b>	<b>7</b>	<b>2</b>	<b>9</b>	
<b>Cancer of the stomach and malignant tumors.</b>												
10 to 19, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
20 to 29, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
30 to 39, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
40 to 49, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
50 to 59, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
60 to 69, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
70 to 79, . . . . .	2	1	1	1	1	1	1	1	1	1	1	1
80 to 89, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
90 and over, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>26</b>	<b>22</b>	<b>9</b>	<b>3</b>	<b>11</b>	<b>7</b>	<b>3</b>	<b>12</b>	
<b>Diseases of the heart and organs of sense.</b>												
10 to 19, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
20 to 29, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
30 to 39, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
40 to 49, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
50 to 59, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
60 to 69, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
70 to 79, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
80 to 89, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
90 and over, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>3</b>	<b>11</b>	<b>29</b>	<b>20</b>	<b>21</b>	<b>1</b>	<b>16</b>	<b>1</b>	<b>4</b>	<b>16</b>		
<b>Diseases of the circulatory system.</b>												
10 to 19, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
20 to 29, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
30 to 39, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
40 to 49, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
50 to 59, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
60 to 69, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
70 to 79, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
80 to 89, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
90 and over, . . . . .	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>13</b>	<b>3</b>	<b>17</b>	<b>38</b>	<b>38</b>	<b>30</b>	<b>2</b>	<b>27</b>	<b>5</b>	<b>3</b>	<b>9</b>	

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

	Water.	Boatmen, canal men, sailors and dock hands.	Longshoremen and stevedores.	Other pursuits.	Road and street.	Carriage and hack drivers, draymen, teamsters and expressmen.	Chaufeurs.	Contractors and foremen (road building).	Laborers (road building) and street cleaners.	Livery stable keepers and managers, hostlers and stable hands.	Other pursuits.	Railroad.	Burgessmen and freight agents.	Brakemen.	Conductors.	Foremen, overseers and inspectors.	Laborers.	Locomotive engineers.	Locomotive firemen.
Tuberculosis of lungs.	1	1	2	1	1	5	6	15	15	1	1	1	1	1	1	1	1	1	1
Cancer of the stomach and malignant tumors.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the heart and organs of sense.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the circulatory system.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>8</b>	<b>5</b>	<b>4</b>	<b>38</b>	<b>32</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>2</b>		
Tuberculosis of lungs.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of the stomach and malignant tumors.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the heart and organs of sense.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the circulatory system.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>3</b>	<b>6</b>	<b>10</b>	<b>9</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>1</b>	
Tuberculosis of lungs.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of the stomach and malignant tumors.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the heart and organs of sense.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the circulatory system.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>3</b>	<b>5</b>	<b>9</b>	<b>10</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>2</b>		
Tuberculosis of lungs.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of the stomach and malignant tumors.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the heart and organs of sense.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases of the circulatory system.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Totals, . . . . .</b>	<b>13</b>	<b>10</b>	<b>15</b>	<b>40</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>6</b>	<b>5</b>

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	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.	Linenmen.	Mail carriers.	Telegraph operators.	Telephone operators.	Other pursuits.
<b>Tuberculosis of lungs.</b>												
10 to 19, .....												1
20 to 29, .....	1											1
30 to 39, .....												1
40 to 49, .....												1
50 to 59, .....	1											1
60 to 69, .....												1
70 to 79, .....												1
80 to 89, .....												1
90 and over, .....												1
<b>Totals, .....</b>	2											3
<b>Cancer and other malignant tumors.</b>												
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, .....												
<b>Totals, .....</b>												
<b>Diseases of the nervous system and the organs of sense.</b>												
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, .....												
<b>Totals, .....</b>	2	1	7	4	9	2		1	3	1	3	
<b>Diseases of the circulatory system.</b>												
10 to 19, .....												
20 to 29, .....												
30 to 39, .....												
40 to 49, .....	1	1										
50 to 59, .....	1											
60 to 69, .....	1											
70 to 79, .....	1											
80 to 89, .....	1											
90 and over, .....												
<b>Totals, .....</b>	4	3	12	1	4	1	1	1	3	3	3	5

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

TRADE.	Bankers, brokers and moneylenders.	Clerks in stores.	Commercial travelers.	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).	Policemen.	Soldiers, sailors and marines.	Other pursuits.
10 to 19, .....	1																	
20 to 29, .....	1																	
30 to 39, .....	1																	
40 to 49, .....	1																	
50 to 59, .....	1																	
60 to 69, .....	1																	
70 to 79, .....	1																	
80 to 89, .....	1																	
90 and over, .....	1																	
<b>Totals, .....</b>	8	17	1	2	2	7	31	1	40	5		4	6	3	5	8	10	10
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, .....																		
<b>Totals, .....</b>	3	4	2	1		20	21	2	31	10		1	5	3	8	7	2	25
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, .....																		
<b>Totals, .....</b>	17	10		2		24	21	3	106	10		2			11	6	6	26
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, .....																		
<b>Totals, .....</b>	20	7	3	1	3	35	58	2	185	13		7	6	4	13	17	6	47

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	PROFESSIONAL SERVICE.										
	Architects.	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.
<b>Tuberculosis of lungs.</b>											
10 to 19.....								1			
20 to 29.....											
30 to 39.....											
40 to 49.....											
50 to 59.....											
60 to 69.....											
70 to 79.....											
80 to 89.....											
90 and over.....											
Totals.....								6		5	8
<b>Cancer and other malignant tumors.</b>											
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.....											
Totals.....								2		4	14
<b>Diseases of the nervous system and of the organs of sense.</b>											
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.....											
Totals.....								1		2	15
<b>Diseases of the circulatory system.</b>											
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.....											
Totals.....								1		3	31

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

	Other professional and semi-professional pursuits.										
	DOMESTIC AND PERSONAL SERVICE.										
	Barbers, hairdressers and manicurists.	Bar-tenders.	Hotel keepers and managers.	Housekeepers and stewards.	Janitors and sextons.	Launderers and laundresses.	Porters (except in stores).	Restaurant, cafe and lunch room keepers.	Salonkeepers.	Servants.	Walters.
<b>Other professional and semi-professional pursuits.</b>											
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.....											
Totals.....											
<b>DOMESTIC AND PERSONAL SERVICE.</b>											
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.....											
Totals.....											
<b>CERKICAL OCCUPATIONS.</b>											
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.....											
Totals.....											



TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY.	Farmers.	Farm laborers.	Fishermen and oystermen.	Gardeners, florists, fruit growers and nurserymen.	Garden, greenhouse, orchard and nursery laborers.	Other agricultural and animal husbandry pursuits.	EXTRACTION OF MINERALS.	Foremen, overseers and inspectors.	Miners.	Quarry operatives.	MANUFACTURING AND MECHANICAL INDUSTRIES.
<b>Pneumonia.</b>												
10 to 19, . . . . .		1										
20 to 29, . . . . .		1										
30 to 39, . . . . .		1										
40 to 49, . . . . .		1										
50 to 59, . . . . .		1										
60 to 69, . . . . .		1										
70 to 79, . . . . .		1										
80 to 89, . . . . .		1										
90 and over, . . . . .		1										
<b>Totals, . . . . .</b>		7	3		11					2		
<b>Diseases of the respiratory system (tuberculosis of lungs excepted).</b>												
10 to 19, . . . . .		1										
20 to 29, . . . . .		1										
30 to 39, . . . . .		1										
40 to 49, . . . . .		1										
50 to 59, . . . . .		1										
60 to 69, . . . . .		1										
70 to 79, . . . . .		1										
80 to 89, . . . . .		1										
90 and over, . . . . .		1										
<b>Totals, . . . . .</b>		7	2	1	4					2		
<b>Diseases of the digestive system.</b>												
10 to 19, . . . . .												
20 to 29, . . . . .												
30 to 39, . . . . .		3		1	1	1						
40 to 49, . . . . .		4		1	1	1						
50 to 59, . . . . .		1										
60 to 69, . . . . .		1										
70 to 79, . . . . .		1										
80 to 89, . . . . .		1										
90 and over, . . . . .		1										
<b>Totals, . . . . .</b>		10	7	5	6	1	1			2	1	
<b>Nonvenereal diseases of the genito-urinary system and annexa.</b>												
10 to 19, . . . . .		1										
20 to 29, . . . . .		1										
30 to 39, . . . . .		1										
40 to 49, . . . . .		1										
50 to 59, . . . . .		1										
60 to 69, . . . . .		1										
70 to 79, . . . . .		1										
80 to 89, . . . . .		1										
90 and over, . . . . .		1										
<b>Totals, . . . . .</b>		10	12	5	16	3	4			1	2	

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

	Apprentices to building and hand trades.	Bakers.	Blacksmiths, forgemen and hammermen.	Boilermakers.	Brick and stone masons.	Builders and building contractors.	Carpenters, coopers and cabinet makers.	Compositors, bookbinders and typesetters.	Dressmakers and seamstresses (not in factory).	Dyers.	Electricians and electrical engineers.	Engineers (stationary).	Enginers.	Filers, grinders, buffers and polishers (metal).	Firmen (except locomotive and fire department).	Furnace men, smelter men, heaters, pourers, etc.	Glassblowers.	Jewelers, watchmakers, goldsmiths and silversmiths.	Laborers (general and not specified laborers).	
10 to 19, . . . . .		1																		3
20 to 29, . . . . .		1									3									20
30 to 39, . . . . .		1									1									87
40 to 49, . . . . .		1									1									23
50 to 59, . . . . .		1									1									18
60 to 69, . . . . .		1									1									14
70 to 79, . . . . .		1									1									2
80 to 89, . . . . .		1									1									189
90 and over, . . . . .		1									1									4
<b>Totals, . . . . .</b>		6	4	1	15	6	27		1	4	6	5	1	2	6		1	5		303
10 to 19, . . . . .																				4
20 to 29, . . . . .																				5
30 to 39, . . . . .																				6
40 to 49, . . . . .																				5
50 to 59, . . . . .																				8
60 to 69, . . . . .																				8
70 to 79, . . . . .																				1
80 to 89, . . . . .																				3
90 and over, . . . . .																				1
<b>Totals, . . . . .</b>		2	4	2	3	2	20		3		2	6		2	2			4		36
10 to 19, . . . . .																				2
20 to 29, . . . . .																				11
30 to 39, . . . . .																				11
40 to 49, . . . . .																				15
50 to 59, . . . . .																				16
60 to 69, . . . . .																				14
70 to 79, . . . . .																				16
80 to 89, . . . . .																				3
90 and over, . . . . .																				1
<b>Totals, . . . . .</b>		1	4	4	2	11	2	23		5	4	8	7	3	4	1	1	2		81
10 to 19, . . . . .																				2
20 to 29, . . . . .																				4
30 to 39, . . . . .																				8
40 to 49, . . . . .																				8
50 to 59, . . . . .																				25
60 to 69, . . . . .																				36
70 to 79, . . . . .																				31
80 to 89, . . . . .																				6
90 and over, . . . . .																				2
<b>Totals, . . . . .</b>		5	10	6	14	9	87		9	3	7	14	2	3	10	2	1	17		146

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	Occupations										
	Building and hand trades.	Chemical industries.	Clay, glass and stone industries.	Iron, steel and other metal industries.	Lumber and furniture industries.	Textile industries.	Other industries.	Mechanics, millwrights and toolmakers. Managers, superintendents and foremen (manufacturing).	Manufacturers and officials.	Mechanics (gunsmiths, locksmiths, wheelwrights, etc.).	Millers (grain, flour, feed, etc.).
Pneumonia.	10 to 19.	1		1			1	1		1	
	20 to 29.						1	1		1	
	30 to 39.	1		1			1	1		1	
	40 to 49.						1	1		1	
	50 to 59.	1		1			1	1		1	
	60 to 69.						1	1		1	
	70 to 79.						1	1		1	
	80 to 89.						1	1		1	
	90 and over.						1	1		1	
	Totals.	7	1	3	6	2	11	12	5	6	8
Diseases of the respiratory system (pneumonia and influenza excepted).	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.										
	Totals.	1	1	1	3		4	8	9	7	1
Diseases of the genitourinary system.	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.										
	Totals.	1	1	3	7	2	2	27	16	9	6
Nonvenereal diseases of the genitourinary system.	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.										
	Totals.	4	1	2	8	1	4	10	30	20	16

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

	Causes																			
	Milliners and millinery dealers.	Moulders, foundry and casters.	Painters, glaziers, varnishers, enamellers, etc.	Paperhangers.	Pattern and model makers.	Plasterers.	Plumbers and gas and steam fitters.	Pressmen (printing).	Roofers and slaters.	Semi-skilled operatives (industry not stated).	Chemical industries.	Cigar and tobacco factories.	Clay, glass and stone industries (except potteries).	Clothing industries.	Food industries.	Iron, steel and other metal industries.	Liquor and beverage industries.	Lumber and furniture industries.	Potteries.	
Pneumonia.	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.																			
	Totals.	6	18	1			3	6	5	1	3	3	4	5	3	3	15			5
Diseases of the respiratory system (pneumonia and influenza excepted).	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.																			
	Totals.	1	1	9	2	1		2	1	2	2	1	1	2	5		4		1	1
Diseases of the genitourinary system.	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.																			
	Totals.	5	10					8	5		4	2	3	4	6	1	18		2	
Nonvenereal diseases of the genitourinary system.	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.																			
	Totals.	6	36	1	2	2	7	10	2	8	1	6	9	7		16	2	3	5	





TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	PROFESSIONAL SERVICE.										
	Architects.	Chemists, assayers, etc.	Civil and mining engineers and surveyors.	Clergymen.	Podiatrists.	Designers, draftsmen and inventors.	Lawyers, judges and justices.	Musicians and teachers of music.	Photographers.	Physicians and surgeons.	Teachers.
Pneumonia.	10 to 19.										1
	20 to 29.										1
	30 to 39.										1
	40 to 49.										1
	50 to 59.				1					1	1
	60 to 69.				1						1
	70 to 79.				1					1	1
	80 to 89.				1						1
	90 and over.				1						1
	Totals.	1	1	4			2	2		2	7
Diseases of the respiratory system (pneumonia and lungs excepted).	10 to 19.										1
	20 to 29.										1
	30 to 39.										1
	40 to 49.										1
	50 to 59.		1							1	1
	60 to 69.					1					1
	70 to 79.					1				1	1
	80 to 89.					1					1
	90 and over.					1					1
	Totals.	1	1	2		1	1	1	1	2	2
Diseases of the digestive system.	10 to 19.										1
	20 to 29.										1
	30 to 39.										1
	40 to 49.										1
	50 to 59.			1							1
	60 to 69.			1							1
	70 to 79.			1							1
	80 to 89.			1							1
	90 and over.			1							1
	Totals.	1	2	2		1	6	2	1	5	12
Nonvenereal diseases of the secondary system and kidneys.	10 to 19.										2
	20 to 29.										1
	30 to 39.										1
	40 to 49.										1
	50 to 59.		1	4							3
	60 to 69.			5	2						4
	70 to 79.		1	6	1						4
	80 to 89.			2	1						1
	90 and over.			2	1						1
	Totals.	3	4	18	5		2	4	3	4	12

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—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.	Laundresses and laundresses.	Porters (except in stores).	Restaurant, cafe and lunch room keepers.	Saboteers.	Servants.	Waiters.										
	Other pursuits.																				
	CLERICAL OCCUPATIONS.																				
	Agents, canvassers and collectors.	Bookkeepers, cashiers and accountants.	Clerks (except in stores).	Other clerical pursuits.																	
Pneumonia.	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.																				
	Totals.	4	2	3	391	6	3	4	2	3	15	8	8		3	7	38				
Diseases of the respiratory system (pneumonia and lungs excepted).	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.																				
	Totals.	1	1		296						9	2	4		2	6	13				
Diseases of the digestive system.	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.																				
	Totals.	1	1		296						9	2	4		2	6	13				
Nonvenereal diseases of the secondary system and kidneys.	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.																				
	Totals.	3	3	8	1214	9	8	5	6	8	17	3	8		3	9	27				



TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	Suicides.										Violent deaths (suicide excepted).										All other diseases and causes of death.										Summary of decedents from all causes.																																													
	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,	Totals.	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,	Totals.	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,	Totals.	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,	Totals.																																				
Building and hand trades.									1										9	7	6	9	2	3	23	30	24	7	4	1	1	3	10	2	2	13	26	9	6	5	4	4	5	1	1	7	6		2	4	21	40	168	81	22	145	331	209	114	74																
Chemical industries.																																																																												
Clay, glass and stone industries.									2										2																			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Iron, steel and other metal industries.									8										2																			10																			10																			
Lumber and furniture industries.																			3																			2																			2																			
Textile industries.																																																																												
Other industries.									14										23																			26																			26																			
Mechanics, millwrights and toolmakers.									3										30																			30																			30																			
Managers, superintendents and foremen (manu- facturing).									4										7																			4																			4																			
Manufacturers and officials.																																																																												
Mechanics (gunsmiths, locksmiths, wheelwrights, etc.).																																																																												
Millers (grain, flour, feed, etc.).									3										4																			3																			3																			

CERTAIN SELECTED CAUSES. NEW JERSEY, 1921—Continued.

	Milliners and millinery dealers.	Modifiers, formers and casters.	Painters, electricians, varnishers, enamellers, etc.	Paperhangers.	Pattern and model makers.	Plasterers.	Plumbers and gas and steam fitters.	Pressmen (printing).	Roofers and slaters.	Semi-skilled operatives (industry not stated).	Chemical industries.	Cigar and tobacco factories.	Clay, glass and stone industries (excepting pot- teries).	Clothing industries.	Food industries.	Iron, steel and other metal industries.	Liquor and beverage industries.	Lumber and furniture industries.	Potteries.	
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,																				
Totals.	1		1				2	3		1			1	5	1	9			1	
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,																				
Totals.	1	6	35		1		8	2	1	3	3	0	3	8	3	28			2	
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,																				
Totals.	2	4	23	1	4	1	14	5		5	1	10	2	10		6		5	5	
10 to 19,	1	1	2				3	4		12	2	9	2	4	5	7		1	1	
20 to 29,	1	1	13	1			10	9		4	15	3	17	6	7	4		2	4	
30 to 39,	1	1	33	1			19	13		6	11	3	8	5	12	11		3	2	
40 to 49,	1	1	47	3	1		32	9		4	8	5	7	4	20	5		2	6	
50 to 59,	6	18	59	4	4		23	17		5	11	18	1	42	8	1		7	7	
60 to 69,	2	16	90	2	4	2	7	13		4	6	15	27	5	38	1		4	19	
70 to 79,	3	28	1	2	1	3	12	4		2	13	16	16	10	41	4		7	14	
80 to 89,	1	9	1	1	1	3	3	3		1	2	8	15	1	23	3		3	2	
90 and over,	1	1	1	1	1	1	1	1		1	1	2	4	1	5	1		3	1	
Totals.	14	66	233	11	13	12	117	77		22	87	17	69	65	103	28		28	85	

TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

	Summary of deaths from all causes.										All other deaths from causes of death.										Violent deaths (accidents excepted).										Sinfide.																		
	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.	Totals.	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.	Totals.	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.	Totals.	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.	Totals.									
Rubber industries.																																																	
Shoe factories.																																																	
Tanneries and other leather industries.																																																	
Textile industries.																																																	
Other industries.																																																	
Shoemakers and cobblers (not in factory).																																																	
Stonecutters.																																																	
Tailors and tailresses.																																																	
Tinsmiths and coopersmiths.																																																	
Upholsterers.																																																	
Other manufacturing and mechanical industries.																																																	
TRANSPORTATION.																																																	
Totals.	52	14	62	238	252	103	23	114	311	15	1	7	1	4	2	6	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921.—Continued.

	Water.	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).	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.
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.																			
Totals.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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.																			
Totals.	13	9	6	15	27	1	9	1	4	3	23	5	8	22	3	3			
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.																			
Totals.	5	6	6	9	17	2	17	2	2	1	16	2	6	2	6	4			





TABLE 14.—DEATHS BY OCCUPATIONS, AGE GROUPS AND

		PROFESSIONAL SERVICE.										
		Architects.	Chemists, assayers, etc.	Civil and mining engineers and surveyors.	Clergymen.	Doctors.	Designers, draftsmen and inventors.	Lawyers, judges and justices.	Musicians and teachers of music.	Photographers.	Physicians and surgeons.	Teachers.
Suicide.	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.											
	Totals.		1	1	1			1	4	1	2	
Violent deaths (suicide excepted).	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.											
	Totals.		1	1	1	1	1	2	2	3	3	1
All other diseases and causes of death.	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.											
	Totals.		1	6	2	12	1	6	6	3	11	6
Summary of deaths from all causes.	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.											
	Totals.		10	22	20	79	16	25	53	35	13	54

CERTAIN SELECTED CAUSES, NEW JERSEY, 1921—Continued.

		Other professional and semi-professional pursuits.																
		DOMESTIC AND PERSONAL SERVICE.																
		Barbers, hairdressers and manicurists.	Bar-tenders.	Hotel keepers and managers.	Housekeepers and stewards.	Janitors and sextons.	Laundresses and laundresses.	Porters (except in stores).	Restaurant, cafe and lunch room keepers.	Suboonkeepers.	Servants.	Waiters.	Other pursuits.	CLERICAL OCCUPATIONS.	Agents, canvassers and collectors.	Bookkeepers, cashiers and accountants.	Clerks (except in stores).	Other clerical pursuits.
Suicide.	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.																	
	Totals.		4	3	2	58	1	2	2	2	2	3	2	1	2	3	8	8
Violent deaths (suicide excepted).	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.																	
	Totals.		11	5	4	4	235	2	4	1	3	1	19	5	11	2	13	35
All other diseases and causes of death.	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.																	
	Totals.		24	9	2	6	1161	3	8	3	5	3	28	6	16	2	21	66
Summary of deaths from all causes.	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.																	
	Totals.		4	2	2	1	88	1	7	1	1	12	2	7	1	6	66	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.																		
Totals.		185	76	29	68	8887	71	58	44	34	42	313	74	159	39	173	528	100

TABLE 15.—TABULATION OF DEATHS IN NEW JERSEY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, Age Periods (1 year to 90 and over), and Unknown. Includes sub-totals for Total resident deaths (37,362) and Estimated population (1,140,000).

TABLE 16.—TABULATION OF DEATHS IN ATLANTIC COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, Age Periods (1 year to 90 and over), and Unknown. Includes sub-totals for Total resident deaths (1,211) and Estimated population (85,771).



TABLE 19.—TABULATION OF DEATHS IN BERGEN COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns: Abridged Interna-tional List No., Cause of Death, Total, Male, Female, Color, 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. Includes causes like Typhoid fever, Typhus fever, Malaria, Smallpox, Cholera nostras, etc.

Estimated population, 231,085. Total resident deaths, 2,325. Rate per 1,000 population, 10.47.

TABLE 20.—TABULATION OF DEATHS IN ENGLEWOOD CITY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns: Abridged Interna-tional List No., Cause of Death, Total, Male, Female, Color, 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. Includes causes like Typhoid fever, Typhus fever, Malaria, Smallpox, Cholera nostras, etc.

Estimated population, 11,800. Total resident deaths, 133. Rate per 1,000 population, 11.28.



TABLE 23.—TABULATION OF DEATHS IN RIDGEWOOD VILLAGE FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional List No.	CAUSE OF DEATH.		AGE PERIODS.											Total.	Color, if other than white.	Total resident deaths, 73.	Estimated population, 7,914.	Rate per 1,000 population, 9.22.		
	Male.	Female.	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.
1	5	1	1																	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
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22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				
36																				
37																				
38																				
Total.	75	33	40	4	7															

Estimated population, 7,914. Total resident deaths, 73. Rate per 1,000 population, 9.22.

TABLE 24.—TABULATION OF DEATHS IN RUTHERFORD BOROUGH FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional List No.	CAUSE OF DEATH.		AGE PERIODS.											Total.	Color, if other than white.	Total resident deaths, 83.	Estimated population, 9,376.			
	Male.	Female.	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.
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				
36																				
37																				
38																				
Total.	83	41	39	5	8															

Estimated population, 9,376. Total resident deaths, 83. Rate per 1,000 population, 8.40.









DEPARTMENT OF HEALTH.

TABLE 31.—TABULATION OF DEATHS IN CUMBERLAND COUNTY FOR 1931, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Age Periods (Under 1 year to 80 and over), and Total. Rows include Typhoid fever, Typhus fever, Malaria, Smallpox, Measles, Scarlet fever, Whooping cough, Inducement and croup, Asiatic cholera, Cholera nostras, Other epidemic diseases, Tuberculosis meningitis, Other forms of tuberculosis, Cancer and other malignant tumors, Simple meningitis, Stomach and liver diseases, Organic diseases of the heart, Chronic bronchitis, Pneumonia, Other diseases of the respiratory system, Diseases of the stomach (cancer excepted), Diarrhoea and enteritis (under 2 years), Appendicitis and typhitis, Hernia, Intrauterine foetal death, Gynaecology of the female, Acute nephritis and Bright's disease, Non-cancerous tumors and other diseases of the female genital organs, Puerperal septicaemia (puerperal fever, peritonitis), Other periparturient conditions of pregnancy and labor, Congenital debility and malformations, Scrofula, Wounds, deaths (suicide excepted), Violent deaths (suicide excepted), Other diseases, Unknown or ill-defined diseases.

Total resident deaths, 802. Rate per 1,000 population, 12.87.

BUREAU OF VITAL STATISTICS.

TABLE 32.—TABULATION OF DEATHS IN BRIDGETOWN CITY FOR 1931, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Age Periods (Under 1 year to 80 and over), and Total. Rows include Typhoid fever, Typhus fever, Malaria, Smallpox, Measles, Scarlet fever, Whooping cough, Inducement and croup, Asiatic cholera, Cholera nostras, Other epidemic diseases, Tuberculosis meningitis, Other forms of tuberculosis, Cancer and other malignant tumors, Simple meningitis, Stomach and liver diseases, Organic diseases of the heart, Chronic bronchitis, Pneumonia, Other diseases of the respiratory system, Diseases of the stomach (cancer excepted), Diarrhoea and enteritis (under 2 years), Appendicitis and typhitis, Hernia, Intrauterine foetal death, Gynaecology of the female, Acute nephritis and Bright's disease, Non-cancerous tumors and other diseases of the female genital organs, Puerperal septicaemia (puerperal fever, peritonitis), Other periparturient conditions of pregnancy and labor, Congenital debility and malformations, Scrofula, Wounds, deaths (suicide excepted), Violent deaths (suicide excepted), Other diseases, Unknown or ill-defined diseases.

Total resident deaths, 246. Rate per 1,000 population, 17.15.

















TABLE 47.—TABULATION OF DEATHS IN HUDSON COUNTY FOR 1931, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns: Abridged Internat'l List No., Cause of Death, Sex (Male, Female), Color, Age Periods (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), Total. Rows list causes of death 1-58 such as Typhoid fever, Typhus fever, Smallpox, Measles, Scarlet fever, Whooping cough, etc.

Total. 7181. 3710. 3471. 179. 1224. 207. 140. 104. 72. 1807. 246. 329. 489. 584. 718. 969. 959. 752. 265. 20.

Total resident deaths, 7,181.

Estimated population, 648,396.

Rate per 1,000 population, 11.16.

TABLE 48.—TABULATION OF DEATHS IN BAYONE CITY FOR 1931, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns: Abridged Internat'l List No., Cause of Death, Sex (Male, Female), Color, Age Periods (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), Total. Rows list causes of death 1-58 such as Typhoid fever, Typhus fever, Smallpox, Measles, Scarlet fever, Whooping cough, etc.

Total. 880. 446. 384. 10. 191. 40. 20. 20. 12. 262. 42. 30. 67. 60. 74. 85. 64. 60. 27.

Total resident deaths, 880.

Estimated population, 80,001.

Rate per 1,000 population, 10.87.









TABLE 57.—TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, and Age Periods (Under 1 year to 90 and over). Total population: 489. Total deaths: 482.

Total resident deaths, 482. Estimated population, 32,770. Rate per 1,000 population, 14.82.

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TABLE 58.—TABULATION OF DEATHS IN MERCER COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, and Age Periods (Under 1 year to 90 and over). Total population: 1,836. Total deaths: 1,838.

Total resident deaths, 1,838. Estimated population, 146,169. Rate per 1,000 population, 13.11.









TABLE 65.—TABULATION OF DEATHS IN SOUTH AMBOY CITY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional List No.	CAUSE OF DEATH.	AGE PERIODS.												Color, if other than white.	Female.	Male.	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.
		18	81	81	23	1	10	7	4	10	14	11	7					1	1	1	1	1
1	Typhoid fever.																					
2	Typhus fever.																					
3	Malaria.																					
4	Scarlet fever.																					
5	Whooping cough.																					
6	Diphtheria and croup.																					
7	Influenza.																					
8	Adiatic cholera.																					
9	Cholera nostras.																					
10	Typhoid fever.																					
11	Tuberculosis of the lungs.																					
12	Tuberculosis meningitis.																					
13	Other forms of tuberculosis.																					
14	Cancer and other malignant tumors.																					
15	Simple haemorrhage and softening.																					
16	Organic diseases of the heart.																					
17	Acute bronchitis.																					
18	Pneumonia.																					
19	Other diseases of the respiratory system.																					
20	Diseases of the stomach (cancer excepted).																					
21	Diarrhoea and enteritis (under 2 years).																					
22	Appendicitis and typhlitis.																					
23	Cholera of the liver.																					
24	Acute nephritis and Bright's disease.																					
25	Non-neuritic tumors and other diseases of the female genital organs.																					
26	Other periperal accidents of pregnancy and labor.																					
27	Congenital debility and malformations.																					
28	Senility.																					
29	Violent death (suicide excepted).																					
30	Other diseases.																					
31	Unknown or ill-defined diseases.																					
Total.		901	53	46			18	81		23	1	10	7	4	10	14	11	7	1			

Estimated population, 8,036.

Total resident deaths, 99.

Rate per 1,000 population, 12.82.

TABLE 66.—TABULATION OF DEATHS IN MONMOUTH COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional List No.	CAUSE OF DEATH.	AGE PERIODS.												Color, if other than white.	Female.	Male.	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.
		106	23	16	13	2	220	21	85	72	124	137	174					280	283	108	26	1
1	Typhoid fever.																					
2	Typhus fever.																					
3	Malaria.																					
4	Scarlet fever.																					
5	Whooping cough.																					
6	Diphtheria and croup.																					
7	Influenza.																					
8	Adiatic cholera.																					
9	Cholera nostras.																					
10	Typhoid fever.																					
11	Tuberculosis of the lungs.																					
12	Tuberculosis meningitis.																					
13	Other forms of tuberculosis.																					
14	Cancer and other malignant tumors.																					
15	Simple haemorrhage and softening.																					
16	Organic diseases of the heart.																					
17	Acute bronchitis.																					
18	Pneumonia.																					
19	Other diseases of the respiratory system.																					
20	Diseases of the stomach (cancer excepted).																					
21	Diarrhoea and enteritis (under 2 years).																					
22	Appendicitis and typhlitis.																					
23	Cholera of the liver.																					
24	Acute nephritis and Bright's disease.																					
25	Non-neuritic tumors and other diseases of the female genital organs.																					
26	Other periperal accidents of pregnancy and labor.																					
27	Congenital debility and malformations.																					
28	Senility.																					
29	Violent death (suicide excepted).																					
30	Other diseases.																					
31	Unknown or ill-defined diseases.																					
Total.		1545	701	784	160	108	23	16	13	2	220	21	85	72	124	137	174	280	283	108	26	

Estimated population, 106,900.

Total resident deaths, 1,546.

Rate per 1,000 population, 14.50.



















TABLE 85.—TABULATION OF DEATHS IN SUSSEX COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional 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.																					
7	Whooping cough.																					
8	Diphtheria and croup.																					
9	Influenza.																					
10	Asiatic cholera.																					
11	Other epidemic diseases.																					
12	Other febrile diseases.																					
13	Tuberculosis of the lungs.																					
14	Tuberculous meningitis.																					
15	Other forms of tuberculosis.																					
16	Other forms of tuberculosis.																					
17	Simple meningitis.																					
18	Cerebral hemorrhage and softening.																					
19	Organic diseases of the heart.																					
20	Acute bronchitis.																					
21	Chronic bronchitis.																					
22	Pneumonia.																					
23	Other diseases of the respiratory system (tuberculosis excepted).																					
24	Diseases of the stomach (cancer excepted).																					
25	Diarrhea and enteritis (under 2 years).																					
26	Hernia, intestinal obstruction.																					
27	Obstruction of the liver.																					
28	Acute nephritis and Bright's disease.																					
29	Noncancerous tumors and other diseases of the uterus and ovaries.																					
30	Noncancerous tumors and other diseases of the prostate gland.																					
31	Puerperal septicemia (puerperal fever, peri- tonitis).																					
32	Other puerperal accidents of pregnancy and labor.																					
33	Other congenital debility and malformations.																					
34	Scurvy.																					
35	Violent deaths (suicide excepted).																					
36	Other diseases.																					
37	Unknown or ill-defined diseases.																					
38	Total.	327	185	162	8	61	7	1	1	3	62	2	5	17	10	21	32	54	72	40	6	

Total resident deaths, 327.  
Estimated population, 24,015.  
Rate per 1,000 population, 13.78.

TABLE 86.—TABULATION OF DEATHS IN UNION COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged Interna- tional 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.																					
7	Whooping cough.																					
8	Diphtheria and croup.																					
9	Influenza.																					
10	Asiatic cholera.																					
11	Other epidemic diseases.																					
12	Other febrile diseases.																					
13	Tuberculosis of the lungs.																					
14	Tuberculous meningitis.																					
15	Other forms of tuberculosis.																					
16	Other forms of tuberculosis.																					
17	Simple meningitis.																					
18	Cerebral hemorrhage and softening.																					
19	Organic diseases of the heart.																					
20	Acute bronchitis.																					
21	Chronic bronchitis.																					
22	Pneumonia.																					
23	Other diseases of the respiratory system (tuberculosis excepted) (cancer excepted).																					
24	Diarrhea and enteritis (under 2 years).																					
25	Hernia, intestinal obstruction.																					
26	Obstruction of the liver.																					
27	Acute nephritis and Bright's disease.																					
28	Chronic nephritis.																					
29	Noncancerous tumors and other diseases of the uterus and ovaries.																					
30	Noncancerous tumors and other diseases of the prostate gland.																					
31	Puerperal septicemia (puerperal fever, peri- tonitis).																					
32	Other puerperal accidents of pregnancy and labor.																					
33	Other congenital debility and malformations.																					
34	Scurvy.																					
35	Violent deaths (suicide excepted).																					
36	Other diseases.																					
37	Unknown or ill-defined diseases.																					
38	Total.	2388	1122	1025	138	317	61	33	37	17	465	58	83	110	182	216	264	318	302	153	22	

Total resident deaths, 2,138.  
Estimated population, 290,421.  
Rate per 1,000 population, 10.20.





TABLE 80.—TABULATION OF DEATHS IN WESTFIELD TOWN FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, Age Periods (Under 1 year to 80 and over), and Unknown. Includes footnotes for population and deaths.

TABLE 90.—TABULATION OF DEATHS IN WARREN COUNTY FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Table with columns for Cause of Death, Total, Male, Female, Color, Age Periods (Under 1 year to 80 and over), and Unknown. Includes footnotes for population and deaths.

Estimated population, 45,846.

Total resident deaths, 872.

Rate per 1,000 population, 12.61.



TABLE 91.—TABULATION OF DEATHS IN PHILIPSBURG TOWN FOR 1921, ACCORDING TO ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH.

Abridged International List No.	CAUSE OF DEATH.	AGE PERIODS.										Total resident deaths, 1921.	Total population, 17,200.	Rate per 1,000 population, 1921.					
		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.
1	Typhoid fever.																		
2	Typhus fever.																		
3	Dysentery.																		
4	Smallpox.																		
5	Measles.																		
6	Scarlet fever.																		
7	Diphtheria.																		
8	Whooping cough.																		
9	Diphtheria.																		
10	Asiatic cholera.																		
11	Cholera nostras.																		
12	Cholera infantum.																		
13	Tuberculosis meningitis.																		
14	Tuberculosis of the lungs.																		
15	Other forms of tuberculosis.																		
16	Cancer and other malignant tumors.																		
17	Cancer of the stomach.																		
18	Cerebral hemorrhage and softening.																		
19	Organic diseases of the heart.																		
20	Acute bronchitis.																		
21	Chronic bronchitis.																		
22	Other diseases of the respiratory system (tuberculosis excepted).																		
23	Diseases of the stomach (cancer excepted).																		
24	Diarrhea and enteritis (under 2 years).																		
25	Enteritis.																		
26	Hemiplegia, intestinal obstruction.																		
27	Cholera of the liver.																		
28	Acute nephritis and Bright's disease.																		
29	Nephroses, tumors and other diseases of the urinary system.																		
30	Genital syphilis (gonorrhea excepted).																		
31	Puerperal septicaemia (puerperal fever, puerperal abscess).																		
32	Other puerperal accidents of pregnancy and labor.																		
33	Other diseases of pregnancy and labor.																		
34	Senility.																		
35	Other diseases of old age.																		
36	Violent deaths (suicide excepted).																		
37	Other diseases.																		
38	Unknown or ill-defined diseases.																		
	Total.	1921	107	881	357	45	12	2	1	1	1	1	1	1	1	1	1	1	

List of Licensed Health Officers and Sanitary Inspectors.

Following is a list of persons who have successfully passed the examination provided for in the act approved April 18th, 1903:

Health Officers.

Henry D. Abbott, M. D.	Bayonne.	A. I. Goehrig.	Trenton.
John E. Adams, M. D.	Orange.	Engelbert L. Goldberg, M. D.	Camden.
T. Lee Adams.	Ocean City.	Hyman L. Goldstein, M. D.	Camden.
Jos. Adler, M. D.	Bayonne.	Wm. S. Green, M. D.	Paterson.
Martin E. Alpers.	Dover.	Chas. A. Griffin, D. V. M.	Orange.
Henry V. Amerman.	Kearny.	I. N. Griscom, M. D.	Ocean City.
Fritz M. Arnold.	Hackensack.	Edward Gulon, M. D.	Atlantic City.
T. Dudley Ballinger.	Princeton.	Seiskar M. Gunn.	Orange.
Wm. M. Barns, M. D.	Millburn.	James J. Hagan.	Jersey City.
Howard L. Baumgartner.	Asbury Park.	Orville R. Hagen.	Paterson.
J. Alonso Beck, M. D.	Gloucester City.	John J. Haley, M. D.	Gloucester City.
John K. Bennett, M. D.	Gloucester City.	John Hall.	Long Branch.
Joseph V. Bergen, M. D.	West Orange.	Lester Hamblet.	Asbury Park.
Richard Bew, M. D.	Atlantic City.	Carl Hegstrom.	Perth Amboy.
Duncan W. Blake, Jr., M.D.	Gloucester City.	Alex. M. Huron, M. D.	Lakewood.
Wm. C. Blake.	Princeton.	Richard E. Hillier.	Plainfield.
Chas. B. Bleasby, M. D.	Garfield.	F. M. Hoffman, M. D.	New Brunswick.
Perkins Boynton.	Little Falls.	Wm. L. Holt, M. D.	Maplewood.
Henry H. Brinkerhoff, M. D.	Jersey City.	J. I. Hoverder, M. D.	Ateco.
Chas. S. Brady, M. P.	Towls of Union.	Robert N. Hoyt.	Summit.
John J. Broderick, M. D.	Jersey City.	Edward R. Hunter, M. D.	Delanco.
Wm. H. Brooke, M. D.	Bayonne.	Morton W. Huttenloch.	Montclair.
James E. Brooks.	Glen Ridge.	Ralph L. Huttenloch.	Montclair.
J. Alex. Browne, M. D.	Paterson.	H. W. Ingling, M. D.	Freehold.
David E. Buckley.	West Orange.	Wm. H. Isard, M. D.	Camden.
Dundas R. Campbell, M. D.	Newark.	Maximilian Jakob, M. D.	Chrono.
Collis H. Case.	Plainfield.	Henry C. James, M. D.	Mays Landing.
John J. Casey.	Plainfield.	Charles E. Jamison, M. D.	Asbury Park.
N. J. Randolph Chandler.	Plainfield.	Ralph R. Jones, M. D.	Toms River.
T. A. Clair, M. D.	Paterson.	John D. Jungmann, M. D.	Camden.
Ralph O. Clock, M. D.	Burlington.	Chas. A. Keating, M. D.	Paterson.
Morris W. Clouse, M. D.	Kearny.	Jay E. Kilpatrick.	Montclair.
Nathan A. Cohen, M. D.	Wildwood.	Chester H. King, M. D.	Oradell.
Max J. Colton.	New Brunswick.	I. Warner Knight, M. D.	Fenn's Grove.
John T. Connelly, M. D.	Bayonne.	Hugo Krause.	Ventnor City.
John C. Cox.	Maplewood.	Carroll E. Krichbaum, M. D.	Millburn.
Wm. C. Craig, M. D.	Ridgewood.	W. T. Kurtz, M. D.	Asbury Park.
Chas. V. Craster, M. D.	Rosebank, N. Y.	Chas. J. Larkey, M. D.	Bayonne.
Jon. J. Craven, M. D.	Jersey City.	Herbert B. Larner.	Montclair.
E. Irving Cronk, M. D.	New Brunswick.	Geo. W. Lawrence, M. D.	Lakewood.
Grant F. Curtis, M. D.	Town of Union.	Jesse B. Leslie.	Hackensack.
Samuel S. DeCon.	Trenton.	Malcolm Lewis.	Montclair.
Jerryman J. Donovan, M. D.	Rosindale, Mass.	J. William Long.	Trenton.
W. D. Dotterer.	Princeton.	J. C. Loper, M. D.	Bridgeton.
Thos. J. DuBois.	Asbury Park.	John L. Lund, M. D.	Perth Amboy.
Wallace T. Eakins.	New Brunswick.	Henry MacDonald.	Newark.
Chas. P. Edson.	Jersey City.	Wm. E. MacDonald.	Trenton.
Frank H. Edsall, M. D.	Jersey City.	J. Scott MacNutt.	Orange.
Nelson Elliott, M. D.	Passaic.	L. F. Maloney, M. D.	Clifton.
R. Clifford Erickson.	Long Branch.	Alex. Marcy, M. D.	Riverton.
Edward P. Essertier, M. D.	Hackensack.	W. M. E. Marcy, M. D.	Cape May.
James A. Exton, M. D.	Arlington.	T. W. Margerum.	Princeton.
Wm. T. Fales.	Glen Ridge.	Elias J. Marsh, M. D.	Paterson.
Morris Farkas, M. D.	West Orange.	Emery Marvel, M. D.	Atlantic City.
A. S. Fell, M. D.	Trenton.	Harriet O. Mattison.	Plainfield.
Nicholas F. Feury, M. D.	Jersey City.	Samuel D. Mayhew, M. D.	Bridgeton.
Geo. W. Finke, M. D.	Hackensack.	John T. McClure.	Harrison.
Geo. W. Fithian, M. D.	Perth Amboy.	Charles McNabb.	Bound Brook.
Jay G. Foote.	Montclair.	John J. McDonald.	Jersey City.
Morris Frank.	Bayonne.	Frank B. Meeker, M. D.	Newark.
Frank A. Frederick, Jr.	West Hoboken.	Josiah Meigh, M. D.	Beardsville.
Frank A. Frederick, Sr.	West Hoboken.	Chas. J. Merrill.	Bound Brook.
Richard Frederick.	Jersey City.	Chas. S. Mills, M. D.	Riverton.
John Gaub.	Montclair.	Phillip Morris, C. E.	Passaic.
Russell W. Gies.	Elizabeth.	William Morris.	Roselle Park.
		Alfred A. Mutter, M. D.	Arlington.

Nela A. Nelson	Long Branch
Marcus W. Newcomb, M. D.	Burlington
Faul F. Nichols	Jersey City
Stanley H. Nichols, M. D.	Long Branch
Budd H. Oberst	Asbury Park
John O'Brien, Jr.	Montclair
James L. O'Hlf	Plainfield
Frank J. Osborne	Montclair
George T. Palmer	Cresskill
Wm. B. Palmer	Orange
R. H. Parson, M. D.	Mt. Holly
W. E. Partree, M. D.	Eatonwoud
Raymond S. Paterson	New Brunswick
Joseph Payne, M. D.	Midland Park
Roy G. Perham, M. D.	Hasbrouck Heights
Harry H. Pettit, M. D.	Ridgewood
Earl T. Pomeroy	Plainfield
David N. Rapoport, M. D.	Philadelphia, Pa.
Talbot Reed, M. D.	Atlantic City
Louis J. Richards	Elizabeth
W. R. Reick, M. D.	Arlington
Edward B. Rogers, M. D.	Collingswood
John N. Ryan, M. D.	Jersey City
Jos. C. Sallie	Bloomfield
Samuel L. Salasin, M. D.	Atlantic City
Ferdinand N. Sauer	Jersey City
Wm. D. Sargoy, M. D.	Red Bank
Wm. G. Schauder, M. D.	Lakewood
Wm. Schleur	Orange
Wm. H. Schmidt, M. D.	Atlantic City
Fred W. Sell, M. D.	Bahway
Maurice Shapiro, M. D.	Bayonne
Lewis L. Sharp, M. D.	Bayonne
J. LeClere Shedaker	Burlington
Alton S. Sherman, M. D.	West Orange
Wm. H. Sherris, M. D.	Bordertown
Ellen B. Smith, M. D.	Bellefield
W. Brand Smith	Salem
Wm. R. Smith, M. D.	Roselle Park
Milton L. Somers, M. D.	Atlantic City
Henry J. Spalding, M. D.	Union Hill
Gobin Starr	Jersey City
Fred A. Stetter	Asbury Park
Ellanore Stites, M. D.	Bridgeton
Fred H. Stover	Boston, Mass.
Frank H. Straight	Montclair
Eugene H. Sullivan	Orange
Eugene M. Stryker	Montclair
George H. Taylor, M. D.	Maplewood
John G. Taylor	Dover
Walter Taylor, M. D.	Jersey City
Lewis O. Taylor	Montclair
Chas. S. Thompson, D. V. S.	Midland Park
Leon B. Thurlow	Plainfield
James A. Tobey	Summit
George T. Tracey, M. D.	Beverly
John A. C. Tully, M. D.	Vestnor
Wm. Venstra, M. D.	Paterson
Maria M. Vinton, M. D.	East Orange
Godson G. Walton, M. D.	Paterson
Los. Wantock	Carteret
Gertrude Ward, M. D.	Jersey City
Alex. Weir, Jr.	West Hoboken
Chester H. Wells	Montclair
A. Wescott, M. D.	Berlin
Wm. J. Whalen, M. D.	Jersey City
John H. Whitaker, M. D.	Ocean City
Arthur G. Wigley	New Brunswick
Thos. W. Wilhelm	Perth Amboy
Eliam Williams, M. D.	Fassale
Wm. J. Willsey	New Brunswick
John S. Wilson	Bridgeton
Clarence W. Winchell	Jersey City
John H. Winslow, M. D.	Vineland
Fred C. Witte, M. D.	Riverton
Wm. C. Woodward, M. D.	Washington, D. C.
Shirley W. Wyman, M. D.	New York City
Lenore Young, R. N.	Orange
Warren H. Young, M. D.	Little Falls

## Sanitary Inspectors of the First Class.

Frank Ackley	Woodbury
William H. Addis	Plainfield
Thomas Alnge	Laings, Mich.
Wm. C. Allen	Trenton
Laurence Altomonte	Jersey City
Henry V. Amerman	Kearny
Fred J. Anderson	Hoboken
Fritz M. Arnold	Albany
Nathan Aronson	Newark
Samuel Bachman	Newark
Fred S. Ball, M. D.	Lakewood
Joseph B. Bartlett	Atlantic City
Raphael Basile	Jersey City
Milton B. Baxter	Jersey City
John H. Becker, M. D.	Fair Haven
J. Alonzo Beck, M. D.	Gloucester City
John J. Beibey	Gloucester City
Charles E. Bellows	Bridgeton
Alfred C. Benedict, M. D.	South Orange
Chester L. Bennett, M. D.	Newark
John K. Bennett, M. D.	Gloucester City
Casper Benz	Newark
Harry K. Berry	Jersey City
Wm. S. Bird	Jersey City
Joseph C. Bidler, M. D.	Summit
Thomas F. Boles	Hammonton
Chas. A. Brittgifter	Newark
Wm. S. Bird	Jersey City
Henry A. Roynage, M. D.	Ridgewood
Fred S. Bostay, M. D.	Belleville
Lewis E. Bouttiller	Newark
John F. Boylan	Bayonne
Peter Brancato, M. D.	Wyckoff
Thomas M. Brenneck, M. D.	Jersey City
Patrick J. Brogan	Newark
John A. Brown	Glen Ridge
Harvey S. Brown, M. D.	Freehold
Alonzo Brower	Freehold
Frank Brouwer, M. D.	Toms River
David E. Buckley	West Orange
Robert A. Buhler	Belmar
Chauncey Y. Bunnell	Jersey City
S. Alton Burk	Atlantic City
Stephen Campbell, M. D.	Woodbury
Andrew J. Caney, Jr.	North Plainfield
Sylvanus S. Carter	Belmont
Thomas J. Carter	Newark
Collis H. Case	Plainfield
John J. Casey	Plainfield
Matthew P. Casano	Jersey City
N. J. R. Chandler	Plainfield
James J. Clark	Jersey City
Mabel M. Clarke	Franklin
Edward A. Cleary	Newark
Albert N. Cleary	Perth Amboy
Michael J. Clery	Jersey City
Max J. Colton	New Brunswick
John H. Conannon	Newark
Charles S. Conrad	Woodbridge
Charles F. Conrad	Newark
Wm. F. Conroy	Jersey City
John D. Corrigan	Newark
Leroy Cyphers, Sr.	East Orange
Irwin C. Dakin	Newark
Wm. J. Davis	Newark
Harris Day, M. D.	Chester
Newton DeBaum	Hackensack
Burdick Decker	Paterson
Walter B. Delaney	Jersey City
Rocco J. Del Tufo	Newark
Frank Denckian	Plainfield
Henry S. Dengler, M. D.	Springfield
Samuel Denton	Bayonne

Jos. W. Dennis, M. D.	Roselle
M. J. Deveraux	Seaside
Edward J. Devitt	Jersey City
Wm. H. Dewar	Bellefield
C. P. Deyoe, M. D.	Ramsey
Charles E. Divine	Newark
Andrew J. Dolan, M. D.	Jersey City
John A. Donovan	Newark
Daniel J. Donohue, M. D.	Jersey City
Christopher J. Doran, Jr.	Jersey City
Roseus I. Downs, M. D.	Pemberton
Annella V. Dubois	Jersey City
John J. Duff	Jersey City
Leo G. Duff	Newark
Marine Dunn	Rutherford
Fred J. Dyer	Grantwood
H. G. Eakin	Union Hill
Wallace T. Eakins	New Brunswick
J. I. Ebbels	Montclair
Adolph O. Elasser	Newark
Leonard E. Faucher	Newark
Charles W. Fenney	Paterson
Edward F. Flynn	Newark
Jay G. Foose	Montclair
Helen E. Fossan	Montclair
Frank A. Frederick	West Hoboken
Richard Frederick	Jersey City
Gustavus E. Freideman	Newark
Fred J. Freitag	Jersey City
Edward M. Freeman, M. D.	Gibbstown
Charles S. Gall	Paterson
John W. Garey	Atlantic City
Bayard T. Garabrant	Montclair
Jos. A. Garigan	Newark
Dennis E. Gayne	North Plainfield
Edward F. Gaynor	Newark
Albert E. Geissler	Kearny
Wallace M. Gill	Perth Amboy
George W. Gilmore	Newark
William Glueck, Jr.	Newark
A. I. Goehrig	Trenton
Hyman I. Goldstein, M. D.	Camden
John Greaves	Jersey City
Edmund E. Greene	Newark
John J. Greene, Jr.	Newark
Louis H. Greenwald	New Brunswick
A. M. Grter	Penn's Grove
Lydia E. Grimm	Newark
Ambrose J. Gulton	Newark
Herbert H. Haines	Trenton
Earl J. Halligan, M. D.	Jersey City
Robert H. Hall	Jersey City
Lester J. Hamlet	Asbury Park
H. L. Harlet, M. D.	Pleasantville
John C. Harnett	Jersey City
Charles W. Harrays, M. D.	Ridgewood
Frank S. Harris	Newark
Fred C. Harris	Jersey City
Wm. H. Harrison	Paterson
H. W. Hartman, M. D.	Keyport
Edwin H. Hatcher	Lakewood
William W. Heberton, M. D.	South Orange
Carl Hegstrom	Perth Amboy
David D. Helm, Jr., V. M. D.	Camden
Wm. H. Helm, Jr.	Belmar
Patrick J. Hennessy	Jersey City
Fred W. Hering	Jersey City
Alex. M. Heron, M. D.	Lakewood
A. Gertrude Eines	Franklin
Harry M. Eitches	Newark
Adolph E. Hoernig	Newark
James A. Howard	Trenton
Howard H. Huffert	Newark
Martha I. Hunt	Newark
J. H. O. Hurst	Newark
Ralph L. Huttenloch	Montclair
Harry E. Ingalls	Asbury Park
H. Wesley Jack	Collingswood
Richard Jason	Newark
David J. Jones, Jr.	Newark
Wm. A. Keane	Newark
William F. Kearney	Paterson
Charles A. Keating, M. D.	Paterson
Gerald J. Keating	Jersey City
Leavett F. Kelley	Newark
Harry B. Kelly	Jersey City
John A. Kelly	Jersey City
Robert J. Kelly	Jersey City
Stewart Kidd	Paterson
John F. Kilkenny	Morrisstown
Ray E. Kilpatrick	Montclair
Julia E. Kirk	Newark
Tunis Kivett	Paterson
H. J. Klein	Wood Ridge
Henry F. Kneller	Newark
John H. Kohler	Tuckerton
William C. Kraemer	Linden
Henry A. Kruhmann	Newark
Clarence A. Lamont	Asbury Park
Bertram S. Lamberton	Newark
Patrick J. Lang	Jersey City
George W. Langdon	Jersey City
John A. Larkin	Jersey City
W. H. Laver, Jr.	Red Bank
Sadie M. Larson	Asbury Park
Harry F. Leeds	Asbury Park
Gilbert C. Leigh	Asbury Park
John Levine	Newark
Jos. F. Linhart	South Orange
Elliland L. Lockwood, M. D.	Jersey City
George C. Losey	Washington
William H. Lowe, D. V. S.	Paterson
John L. Lund, M. D.	Perth Amboy
Abram A. Lydecke	Haledon
Alex. C. MacDonald	Montclair
John J. Magner, M. D.	Jersey City
Frank W. Mallieu, M. D.	Jersey City
John A. Mansour	Jersey City
Timothy U. Margerum	Princeton
Irwin Markowitz, M. D.	Jersey City
Charles F. Martin	Newark
Cullen E. Maxson, M. D.	Jersey City
Henry S. McAuley	Atlantic City
James J. McCarron	Newark
John T. McClure	Harrison
John T. McClure, Jr.	Harrison
John F. McConnell	Newark
Jas. L. McEaney	Jersey City
Thorn J. McGeary, M. D.	Jersey City
Felix McGee	Millburn
Edward McGivern, M. D.	Jersey City
Richard J. McGree	Jersey City
William McKeon	Paterson
Edward F. McLamey	Jersey City
Frank J. McLaghlin, M. D.	Jersey City
Chas. H. McLoughlin	Newark
Jeremiah J. McMahon, Jr.	Jersey City
Charles McNabb	Bound Brook
James P. McNair	Paterson
Claudis E. McNenny, M. D.	Jersey City
Robert W. Meeker	Plainfield
Chas. E. Messerschmidt	Newark
H. Garrett Miller, M. D.	Millville
Harry P. Moffet	Newark
John Morlet	Paterson
Phillip Morris, C. E.	Fassale
William Morris	Roselle Park
R. E. Mosedale	Bernardsville
Elmer M. Mount, Jr., M. D.	Jersey City
Edward Mulvaney, M. D.	Jersey City
Daniel J. Murphy	Newark
Abraham J. Newman, M. D.	Jersey City
Frederick W. Nichols	Newark
George C. Nicol	Jersey City
Christopher G. Nugent	Newark
A. C. Obergfell	Atlantic City
M. William O'Gorman, M. D.	Jersey City
Bernard F. O'Hara	Jersey City
James O'Hara	Plainfield
John H. O'Neill, M. D.	Jersey City

John O'Neill .....	Trenton.	Frederick A. Stetter .....	Asbury Park.
Russell Burton Opitz, Ph.D., New York City.		Herbert A. Stine .....	Elizabeth City.
Eric Ordell .....	Newark.	Andrew F. Stoveken .....	Jersey City.
Cedric H. Ostrom .....	Plainfield.	John P. Stout, M. D. ....	Jersey City.
Jos. G. O'Sullivan .....	Newark.	Daniel B. Street, M. D. ....	Jersey City.
Richard H. L. Osthoff .....	Bogota.	Lester E. Stricker, D. V. S. ....	Ed Bank.
Clarence I. Palmer .....	Newark.	Pennis J. Sullivan, Jr. ....	Jersey City.
William B. Palmer .....	Orange.	J. Frank Summers .....	Salem.
William D. Pelan .....	Trenton.	Eugene M. Syrett .....	Montclair.
Christian Petry .....	Trenton.	Adwin E. Taber .....	Jersey City.
Peter Pirola .....	Trenton.	Baphael Taub .....	Dover.
James J. Pray .....	Jersey City.	John G. Taylor .....	Dover.
Elmer D. Prickett, M. D. ....	Mt. Holly.	Joseph Ten Broeck .....	Asbury Park.
Jermiah P. Quinlan .....	Clifton.	David R. Thompson .....	Delaware City, Del.
J. J. Reason, M. D. ....	Carteret.	Ella Tilton .....	Newark.
Edward M. Reilly .....	Montclair.	Edward L. Titus .....	Trenton.
Thomas E. Reynolds .....	Atlantic City.	Wm. Tompkins, M. D. ....	Ridgewood.
James E. Rich .....	Trenton.	Thomas A. Toonge .....	Paterson.
Fred C. Robertson, M. D. ....	Jersey City.	J. F. Travers .....	New Brunswick.
Edward S. Rogers .....	Trenton.	Emil J. Teichpup .....	West Hoboken.
Albert H. Rose .....	Trenton.	Lynford E. Tuttle, M. D. V. ....	Bernardsville.
Mary A. Ross .....	Newark.	Sylvester Utter, M. D. ....	Paterson.
John E. Rowe, D. V. S. ....	Summit.	Albert Van Berde, M. D. ....	Hawthorne.
John H. Rowland .....	New Brunswick.	Alfred J. Van Horn .....	Paterson.
Walter A. Rubin .....	Ventnor City.	William Van Loo .....	Paterson.
Edward A. Ryan .....	Newark.	Lloyd M. Van Nesa .....	New Brunswick.
Joseph C. Sailer .....	Bloomfield.	C. H. W. Van Sciver .....	Burlington.
Garrett E. St. John .....	Newark.	Charles S. Voorhis .....	Falmayra.
Edward H. Salmon, M. D. ....	Jersey City.	Burt F. Walsh .....	Jersey City.
Richard Savage .....	Orange.	Thomas P. Walsh .....	Newark.
George Seales .....	Rahway.	Thomas Walton .....	Camden.
Wm. C. Schimmer .....	Jersey City.	Michael Warszawsky .....	Bayonne.
Elvia Scott .....	South Orange.	James J. Waters .....	Newark.
Paul Scott .....	Penn's Grove.	Harry E. Watt .....	New Brunswick.
Timothy J. Scott .....	Summit.	James Weldon .....	Jersey City.
B. F. Seaman, M. D. ....	Raritan.	William A. Weber .....	Orange.
W. J. E. Seder .....	Newark.	George A. West .....	Raritan.
Myron J. Seely .....	Montclair.	Joseph Whalley .....	Pasajic.
George R. Sees .....	Atlantic City.	Thomas D. Wilhem .....	Perth Amboy.
Leon A. Sever .....	Beverly.	Frank V. Wilkinson .....	Newark.
Henry J. Seymour .....	Roelle Park.	Fred M. Williams .....	Rahway.
George F. Shater .....	Hackensack.	Stanley S. Williams .....	Newark.
J. LeClere Shedaker .....	Burlington.	Lewis M. Willis .....	Plainfield.
Wm. S. Sheppard .....	Camden.	Lawrence R. Winchell .....	Jersey City.
Geo. W. Shlan .....	Burlington.	John E. Winslow, M. D. ....	Vineland.
Ruth S. Sicker .....	Salem.	Frederick E. Wilson .....	Bayonne.
Percy W. Sipp .....	Newark.	H. S. Winterhalter .....	Bayonne.
C. C. Slesman .....	Bayonne.	John Wodder .....	Perth Amboy.
Edward A. Smith .....	Newark.	Thomas Wood .....	Pompton.
George N. Smith, M. D. ....	Roselle Park.	James A. Woods .....	Atlantic City.
Wm. R. Smith, M. D. ....	Boselle Park.	Katherine E. Yellon .....	Newark.
F. Wm. Stabuber .....	Trenton.	James A. Young, Jr. ....	Paterson.
Thomas J. Steele .....	Jersey City.	John S. Young, M. D. ....	Rahway.
Louis D. Stern .....	Hoboken.	Sara D. Yard .....	Trenton.

## Sanitary Inspectors of Second Class.

Robert Ballagh .....	Hackensack.	Frederick J. Dyer .....	Grantwood.
John M. Bessel .....	Pleasantville.	George S. Everett .....	Linden.
Frank Born .....	Carteret.	J. C. Shinn, M. D. ....	Jamesburg.
John C. Clayton, M. D. ....	Freehold.	Franklin P. Vanlier .....	Woodstown.
Joseph J. Clineenger .....	Irvington.	George Wildman .....	Belmar.
Charles Cunningham, M. D. ....	Hammonton.		

## Sanitary Inspectors of Third Class.

John J. Bennett .....	Belleville.	Adrian Hommell .....	Asbury Park.
Charles Butcher, M. D. ....	Helsiersville.	Emerson Hornstra .....	Clifton.
Joseph G. Coleman, M. D. ....	Hamburg.	Fred D. Hurley .....	Asbury Park.
Charles Covert .....	Leesburg.	David Jamison .....	Gloucester City.
Ellis W. Crater .....	Oceanport.	St. Nelson Lillagore .....	Ocean City.
William B. Davis .....	Morris Plains.	Stanley H. Lyon .....	Morris Plains.
Robert Dickson .....	Fair Haven.	Cornelius J. McCarthy .....	South Plainfield.
George W. Earl .....	Mt. Tabor.	Henry Moser .....	North Bergen.
Wm. Everhart .....	Port Norris.	Lewis E. Potter .....	Woodbridge.
J. N. Fowler .....	South Plainfield.	William B. Smith .....	Belleville.
Robert A. Hirner .....	Woodbridge.		

## Meat Inspectors.

Samuel Bruce, D. V. S. ....	Philadelphia, Pa.	Richard W. Hewitt, D. V. S. ....	Camden.
Willet H. Cooper, D. V. S. ....	Trenton.	John T. McGrann, V. M. D. ....	Trenton.
Charles Edelhauer .....	Newark.	Albert T. Sellers, D. V. S. ....	Camden.
G. F. Barker, D. V. S. ....	Trenton.		

## Milk and Dairy Inspectors.

Herman C. Alberts .....	Jersey City.	Herman H. North .....	Jersey City.
Matthew P. Casey .....	Jersey City.	Andrew J. O'Donnell .....	Bayonne.
Wm. Fahy .....	Newark.	Ansel D. Parker .....	Delaware, N. J.
Emmet E. Ferguson .....	Sussex.	Clarence H. Riser .....	Jersey City.
Richard Jackson .....	Newark.	Edward S. Rogers .....	Trenton.
Herbert H. Haines .....	Trenton.	Samuel J. Shultise, Jr. ....	New Brunswick.
W. Wesley Hibbard .....	Jersey City.	Harold E. Stearns, D. V. S. ....	Keany.
Wm. F. Kearny .....	Paterson.	Thomas J. Steele .....	Jersey City.
Henry F. Kneller .....	Paterson.	Thomas A. Tonge .....	Paterson.
J. Wesley Maple .....	Trenton.	George D. White, Jr. ....	Newark.
Arthur McRoberts .....	Jersey City.	James A. Young .....	Paterson.
David E. Morgan .....	Newark.		

## Milk and Food Inspectors.

Harry P. Cassidy .....	Philadelphia, Pa.	Harold Mellen .....	Hoboken.
Louis J. Levy .....	Hoboken.	Abe L. Teifeld .....	Hoboken.

## Food and Drug Inspectors.

Louis G. Abell .....	Elizabeth.	Jerome Kahn .....	New Brunswick.
Chester L. Bennet .....	Newark.	Edwin J. Kaiser .....	Newark.
Lillian G. Blumentau .....	Newark.	Henry F. Kneller .....	Newark.
Martin L. Conley .....	Pasajic.	Frank C. Kretfeler .....	Newark.
James E. Connolly .....	Newark.	Henry Kuhnmann .....	Newark.
John J. Coughlin .....	Elizabeth.	Andrew J. O'Donnell .....	Bayonne.
James W. Culbert .....	Newark.	John C. Prosch, Ph.D. ....	Newark.
Adolph O. Elsassner .....	Newark.	Paul C. Schotte .....	Newark.
Abe Halperin .....	Newark.	Max H. Siegel .....	Newark.
Henry C. Handelman .....	Caldwell.	Albert Spies .....	Newark.
William G. Heilmann .....	Newark.	Thomas A. Tonge .....	Paterson.
Adolph E. Hoering .....	Newark.		

## Plumbing Inspectors.

R. C. Adamson, Jr. ....	Long Branch.	John J. Cassidy .....	Hackensack.
Stanley E. Arnold .....	Elizabeth.	Anthony P. Clark .....	Nutley.
Vincent Ahlemeyer .....	Jersey City.	Thomas D. Clark .....	Woodbury.
Gustave A. Alblez .....	Newark.	Joseph P. Cochran .....	Ventnor.
Archie Aspinwall .....	South River.	Benjamin M. Cohen .....	Newark.
Henry Atkins .....	Bayonne.	George M. Crawley, Jr. ....	Newark.
Henry J. Babcock .....	Caldwell.	Sidney S. Cragthorn .....	Beverly.
Richard T. Bagg .....	Vineiland.	Alexander Creamer .....	Cortsville.
Wm. F. Bailey .....	Jersey City.	Francis Cunniskey .....	Guttenberg.
G. E. Bangs .....	West Hoboken.	Newton DeBaun .....	Hackensack.
Wm. C. Banta .....	Ridgewood.	Peter A. Degnan .....	Newark.
James Barnard .....	Trenton.	Irving J. Demarest .....	Westwood.
Lewis Barnett .....	Millville.	Herbert L. de Nourie .....	East Orange.
Wm. C. Beucler .....	Bergenfield.	J. Elmer Deppa .....	Newark.
Edward Beck .....	North Bergen.	Conrad Deucher .....	Newark.
Hugo W. Roberts .....	Edgewater.	Luise J. Devine .....	Newark.
P. W. Borrows .....	Ridgefield Park.	Charles J. Dignum .....	West Orange.
Thos. W. Bradley .....	Edgewater.	Walburg C. Dobbins .....	Belmar.
Porteus Brandriff .....	Millville.	Edward F. Doran .....	Jersey City.
Conrad Brocking .....	West New York.	Luise J. Devine .....	Newark.
William F. Brode .....	Atlantic City.	Thomas J. Dowling .....	Orange.
L. Hopkins Burr .....	Lake Como.	Martin V. Driscoll .....	Jersey City.
Herbert A. Buzzard .....	Audubon.	Edward A. Dugan .....	Gloucester City.
John Campbell .....	Paterson.	Marine Dunn .....	Rutherford.
John L. Campbell .....	Hammonton.	Frederick J. Dyer .....	Grantwood.
Cornelius V. Cary .....	East Rutherford.	Marcus L. Elsele .....	Newark.

David M. Ellis.....Newark.  
 Charles B. Ellis.....Rutherford.  
 Alfred T. England.....Haddonfield.  
 David Entwistle.....Jersey City.  
 Robert Ewans.....Guttenberg.  
 Robert J. Fair.....Gloucester City.  
 Charles W. Fenny.....Paterson.  
 Hubbard Ferguson.....Ridgewood.  
 David P. Filkins.....Jersey City.  
 Frank H. Fitzgeorge.....Trenton.  
 Joseph Fleming.....West Orange.  
 Henry B. Francis.....Camden.  
 Howard Frey.....Red Bank.  
 James J. Garland, Jr.....Perth Amboy.  
 Bayard T. Garbraant.....Montclair.  
 Napoleon Gomin.....Englewood.  
 Walter B. Graham.....Vineland.  
 William H. Graham.....Verona.  
 George T. Haines.....Ventnor.  
 Adam J. Hammer.....Elizabeth.  
 James T. G. Hand.....Ventnor.  
 August Handley.....Jersey City.  
 Bernard M. Hanley.....Jersey City.  
 Thomas F. Harris.....Orange.  
 Michael H. Healey.....Lyndhurst.  
 Thomas P. Healy.....Verona.  
 James F. Hefferty.....New Brunswick.  
 Wm. H. Helm, Jr.....Belmar.  
 George Helmer.....Rutherford.  
 Patrick J. Hennessy.....Jersey City.  
 Fred Henniger.....Jersey City.  
 Henry Herman.....Passaic.  
 Thos. V. Higgins.....Jersey City.  
 Conrad C. Hoffmeier.....West Hoboken.  
 G. Fred Hottle.....Town of Vineland.  
 Joseph F. Hourigan.....Hoboken.  
 Maurice Huckman.....Newark.  
 Arthur A. Hulise.....South Amboy.  
 Joseph A. Hurley.....Guttenberg.  
 E. Irwin.....East Orange.  
 John E. Joyce.....Newark.  
 James A. Judge.....Jersey City.  
 Archibald A. Kafar, Jr.....Bordentown.  
 Martin D. Karl.....Garfield.  
 Joseph E. Keeton.....East Orange.  
 Edward J. Kelly.....Jersey City.  
 Leavett F. Kelly.....Newark.  
 Wm. J. Kelton.....Audubon.  
 John H. Kerr.....Perth Amboy.  
 James H. Kiernan.....Jersey City.  
 Frank S. Klevitt.....Passaic.  
 John P. Kilkenny.....Morristown.  
 John W. Krauss.....Leonia.  
 August C. Krieger.....Town of Union.  
 Jacob Kull.....Newark.  
 Charles Kunz.....West Orange.  
 W. George Lambert.....Riverside.  
 George W. Lang.....East Orange.  
 Eugene Lau.....Newark.  
 W. J. Large.....Vineland.  
 Joseph F. Lee.....Jersey City.  
 Joseph Lendner.....West New York.  
 Albert I. Littell.....Plainsfield.  
 Tunis Lood.....Lodi.  
 Joseph M. Loeffler.....Newark.  
 Warren Mack.....East Orange.  
 Matthew P. Malone.....Jersey City.  
 William Maloney.....Jersey City.  
 Louis Marengi.....Roselle Park.  
 James A. Marnell.....Hoboken.  
 Howard H. Martindell.....Trenton.  
 Herbert J. Mason.....Vineland.  
 Fred C. Metz.....Wildwood.  
 Henry F. Metzger.....Jersey City.  
 Andrew McGookin, Jr.....Newark.  
 Robert A. McGuire.....Perth Amboy.  
 George F. McIntyre.....Hammonton.  
 Harry L. McIntyre.....Hammonton.  
 James McTague.....Jersey City.  
 Frank Miller.....Newark.

Patrick J. Monaghan.....Newark.  
 William S. Mooney.....Jersey City.  
 Robert F. Morgan, Jr.....Newark.  
 George M. Mortenson.....Somers.  
 James F. Mulhall.....East Amboy.  
 Gustave Muller.....North Wildwood.  
 Charles Munzing.....Jersey City.  
 Edward F. Murphy.....North Bergen.  
 Robert B. Murphy.....Lakewood.  
 John A. Myers.....Lakewood.  
 Frederick W. Nichols.....Newark.  
 John Nolan.....Bayonne.  
 George H. Norton.....Red Bank.  
 Joseph J. Norton.....East Orange.  
 Richard J. O'Crowley, Jr.....Newark.  
 John O'Shea.....West New York.  
 Richard W. L. Oshoff.....Bogota.  
 Hugh F. Parle.....Jersey City.  
 Raymond W. Pettibone.....Island Heights.  
 Samuel Powell.....Roselle Park.  
 Charles Reeve.....Long Branch.  
 Arthur G. Reeves.....Cape May City.  
 John B. Reeves.....Haddon Heights.  
 Bernards B. Relley.....New Brunswick.  
 Rudolph Remenschnieder.....Town of Union.  
 Chas. Reynolds.....Beverly.  
 Edward A. Rogers.....Trenton.  
 Alfred B. Rooney.....Jersey City.  
 Anthony S. Ruddy.....East Orange.  
 Patrick J. Ryan.....Wallington.  
 Anthony H. Sachs.....Carteret.  
 Michael Saul.....Newark.  
 Edgar A. Scourman.....Perth Amboy.  
 George J. Scheurle.....Weehawken.  
 Roy J. Schlach.....Hightstown.  
 Wm. A. Sehner.....Pallades Park.  
 George F. Shafer.....Hackensack.  
 Michael A. Shanahan.....Jersey City.  
 Charles F. Shaw.....Collingswood.  
 John H. Simmerman.....Pitman.  
 Harry R. Singer.....Highland Park.  
 E. LeRoy Skillman.....Newark.  
 Clarence B. Slack.....Trenton.  
 Henry A. W. Smith.....Ocean City.  
 Harold L. Snyder.....Camden.  
 Joseph Sonnenberg.....Irvington.  
 John Specht.....Newark.  
 Geo. B. Spalding.....New Milford.  
 William F. Specht, Jr.....Atlantic City.  
 B. H. Sooy.....Atlantic City.  
 Charles Steller.....Town of Union.  
 G. H. Soult.....Ridgewood.  
 Andrew F. Storkel.....Jersey City.  
 Edward A. Sullivan.....Newark.  
 Fred. Taylor.....East Rutherford.  
 Charles Turkowsky.....West New York.  
 Thomas Vail.....South Amboy.  
 Wm. E. VanKirk.....Beverly.  
 Geo. W. VanVarick.....Clifton.  
 Oscar J. Verhoek.....Irvington.  
 Frank Vermilye.....Bound Brook.  
 Robert J. Walker.....Atlantic City.  
 Thomas Walton.....Camden.  
 Michael Warshawsky.....Bayonne.  
 John J. Waters.....Jersey City.  
 George S. Webb.....Wildwood.  
 James C. Wezham.....Wildwood.  
 Alex. Weir, Jr.....West Hoboken.  
 C. H. Weller.....Hightstown.  
 Charles F. West.....Gloucester City.  
 Joseph Whaley.....Passaic.  
 Charles M. Whelan.....Trenton.  
 Jason H. Wildrick.....Washington.  
 Leslie H. Williams.....East Orange.  
 Charles S. Wilcox.....Island Heights.  
 John Wodder.....Perth Amboy.  
 Harry A. Wilkins.....Newark.  
 Louis V. Ziegler.....Bidgefield Park.  
 William G. Ziegler.....West Hoboken.  
 Ernest L. Zimmerman.....Hackensack.

## Sewage Plant Operators.

Ellijah E. Batta.....Avalon.  
 Theodore Bellis.....Flemington.  
 Vernon W. Blanchard.....Dover.  
 Raymond G. Case.....Oaklyn.  
 Anthony Chiodo.....Lodi.  
 C. W. Collins.....Westfield.  
 Reinhold W. Daust.....Highlands.  
 George E. Davis.....Wildwood Crest.  
 John J. Deats.....Washington.  
 Fred. J. Dyer.....Cliffside Park.  
 William Eigenrauch.....East Rutherford.  
 C. Allen Ely.....Hightstown.  
 Charles D. Flynn.....New Brunswick.  
 William Foley.....Ridgewood.  
 John Garis.....Stone Harbor.  
 W. R. Hale.....Metschen.  
 Clarence E. Jack.....Wayne.  
 Allan W. James.....Kenilworth.  
 William Kerr.....North Arlington.  
 Robert W. Lindsay.....Lyndhurst.  
 H. W. Missel.....Phillipsburg.  
 Edward W. Martin.....Westmont.  
 James Moynaux.....Bordentown.  
 John W. Norton.....Maywood.  
 Richard H. L. Oshoff.....Bogota.  
 Ernest E. Priest.....Metuchen.  
 Walter W. Pomyca.....Trenton.  
 John T. Reichard.....Stone Harbor.  
 Chas. Remins.....Wrightstown.  
 Frank Rispler.....Neahale.  
 Michael J. Sallmann.....North Arlington.  
 John H. Simmerman.....Pitman.  
 Ernest W. Smillie.....Princeton.  
 Chester S. Smith.....Awosting.  
 G. Cleveland Stanton.....Avon.  
 Harry Stark.....Leonia.  
 Walter Wittemann.....Hasbrouck Heights.  
 Henry Young.....River Edge.

## Water Plant Operators.

Theo. R. Allen.....Gloucester.  
 Tolson Bedwell.....Millville.  
 Clarence Brushwood.....Vincentown.  
 Russell Drabold.....Penns Grove.  
 C. Allen Ely.....Hightstown.  
 Arthur G. Faull.....Keansburg.  
 George B. Greenwald.....Lumberton.  
 W. M. Hedden.....Dover.  
 Harold T. Hinchman.....Medford.  
 William A. Kelly.....Long Branch.  
 Edwin F. Langford.....Paterson.  
 M. B. Litch.....Strelton, Pa.  
 A. T. McMichael.....South Amboy.  
 Leo A. Mulligan.....Wharton.  
 John L. Radcliffe.....Elizabeth.  
 Jos. Y. L. Reid.....Hightstown.  
 E. Ney Ridgway.....Femberton.  
 George I. Ruckert.....High Bridge.  
 Wesley Sheppard.....Salem.  
 Harry Taylor.....Frenchtown.  
 C. B. Tilton.....Phillipsburg.

## List of Sanitary Districts.

### CITIES.

Absecon, Atlantic county. E. H. Madden, President; Samuel Johnson, Secretary; Dr. C. C. Allen, Inspector.

Asbury Park, Monmouth county. Thomas J. Winckler, Director of Public Safety; B. H. Obert, Health Officer and Registrar.

Atlantic City, Atlantic County. Hon. Edw. L. Bader, Mayor; Samuel L. Salasin, M. D., Secretary.

Bayonne, Hudson county. W. Homer Axford, M. D., President; Morris Brodman, Secretary and Reporting Officer; W. W. Brooke, M. D., Health Officer.

Beverly City, Burlington county. A. V. Woolston, Secretary and Registrar.

Bordentown, Burlington county. Jos. R. Malone, Secretary and Reporting Officer.

Bridgeton, Cumberland county. Enos Paullin, President; Sidney O. Williams, Secretary; Chas. E. Bellows, Inspector.

Burlington, Burlington county. John J. McCann, President; J. Le Clere Shedaker, Secretary and Health Officer.

Camden, Camden county. H. H. Davis, M. D., President; Eugene B. Roberts, Secretary and Reporting Officer; John F. Leavett, M. D., Health Officer.

Cape May City, Cape May county. John T. Hewitt, President; William Porter, Secretary; V. M. D. Marcy, Health Officer; Arthur C. Reeves, Inspector.

Cifton City, Passaic county. William Nebel, President; W. A. Miller, Secretary; J. P. Quinlan, Health Officer and Reporting Officer.

Corbin City, Atlantic county. Henry Tussing, President; Norman Baily, Secretary; Harry Sandman, Registrar; all of Corbin City.

East Orange City, Essex county. Dr. C. P. Moulton, President; T. Dudley Ballinger, Secretary and Health Officer.

Egg Harbor City, Atlantic county. Myrtle Frank, M. D., President; Wm. Morganweck, Secretary and Reporting Officer.

Elizabeth City, Union county. Hugo W. Roberts, President; Louis J. Richards, Health Officer and Reporting Officer.

Englewood, Bergen county. Walter Phillips, President; Benjamin Woodruff, Secretary; John A. Manson, Inspector.

Gloucester City, Camden county. Harlon S. Miner, President; H. Mayers Black, Secretary; Dr. J. A. Reek, Health Officer and Reporting Officer.

Hoboken City, Hudson county. Patrick Griffin, President; John Beronio, Clerk and Registrar.

Jersey City, Hudson county. Frank Hague, Director; J. J. Craven, Health Officer and Reporting Officer; John Harnett, Inspector.

Lambertville City, Hunterdon county. Chas. Mathews, President; I. L. Smith, Clerk and Registrar; C. C. B. John, Inspector.

Long Branch, Monmouth county. Charles Rosencrans, President; R. C. Erickson, Secretary and Health Officer.

Margate City, Atlantic county. A. Gettzen, Jr., Secretary.

Millville City, Cumberland county. Chas. P. Isabell, President; H. L. Thomas, Secretary; Frank Bullock, Reporting Officer and Health Officer.

Newark, Essex county. Robert F. Morgan, Clerk; Chas. V. Craster, M. D., Health Officer.

New Brunswick, Middlesex county. Wm. C. Jacques, Commissioner; E. I. Cronk, M. D., Health Officer and Reporting Officer.

Northfield City, Atlantic county. Wm. Oxley, President; A. R. Vickers, Secretary and Registrar.

Orange City, Essex county. Leonora Young, Health Officer.

Passaic, Passaic county. John H. McGuire, President; Virginia Hand, Secretary; John N. Ryan, M. D., Health Officer and Reporting Officer.

Paterson, Passaic county. Jas. J. Maher, President; Louis Kirsinger, Secretary and Reporting Officer; Dr. T. J. Clay, Health Officer.

Pleasantville, Atlantic county. Nell D. Campbell, President; Jesse Bowen, Secretary; Nell D. Campbell, Reporting Officer; Dr. W. J. Hudson, Inspector.

Plainfield, Union county. Stephen H. Voorhees, President; Dr. Edward S. Kraus, Secretary; N. J. Randolph Chandler, Reporting Officer and Health Officer.

Fort Republic City, Atlantic county. J. H. Champion, President; C. A. Johnson, Secretary; Thos. Turner, Inspector.

Rahway, Union county. Wm. H. Randolph, President; Fred M. Williams, Secretary and Reporting Officer.

Salem City, Salem county. Chas. E. Markley, President; Geo. Kirk, Secretary; Sylvinius Carl, Reporting Officer.

Sea Isle City, Cape May county. William J. Shellan, President; Claude J. Town, Secretary.

Somers Point, Atlantic county. Geo. Goll, President. Walter A. Smith, Secretary and Registrar.

South Amboy, Middlesex county. Geo. G. Oliver, President; John S. Tomaszowski, Secretary; William J. Nagle, Registrar; Nicholas Hawley, Inspector.

Summit, Union county. Burton L. Bore, President; Wm. S. Bird, Secretary and Registrar.  
 Trenton, Mercer county. Howard H. Ely, Reporting Officer and Registrar; A. S. Fell, Health Officer; Wm. C. Allen, Inspector.  
 Vestmor City, Atlantic county. Dr. Thomas Youngman, President; James G. Scull, Secretary and Reporting Officer; Walter A. Bulon, Health Officer.  
 Wildwood City, Cape May county. Benj. C. Ingersoll, Reporting Officer and Health Officer.  
 Woodbury, Gloucester county. Frank Braun, President; W. E. Keat, Secretary and Reporting Officer; Frank Ackley, Health Officer; T. D. Clark, Inspector.

## BOROUGHES.

Allendale, Bergen county. A. K. Merrill, President; Chas. Johnson, Clerk and Registrar.  
 Allenhurst, Monmouth county. T. C. Cottrell, President; Chas. E. King, Secretary and Registrar.  
 Allentown, Monmouth County. Chas. A. Spaulding, President; Wm. B. McLaughlin, Secretary and Reporting Officer; Geo. Willbur, Inspector.  
 Alpha, Warren county. Mrs. Stephen L. Smith, President; Cleveland M. Rhen, Secretary and Reporting Officer.  
 Alpine, Bergen county. Joseph M. Garvey, President; Robert H. Monroe, Secretary and Registrar.  
 Andover, Sussex county. S. S. Wills, President; Wm. E. Wilson, Secretary and Reporting Officer.  
 Atlantic Highlands, Monmouth county. Patrick Halleran, President; Edgar C. Cook, Secretary and Reporting Officer; Geo. Stryker, Health Officer; E. A. Irwin, Inspector.  
 Audubon, Camden county. Wm. H. Haines, M. D., President; Horace H. Brown, Secretary and Registrar.  
 Avalon, Cape May county. Ralph Paterson, Secretary; Gilbert S. Smith, Reporting Officer.  
 Avon, Monmouth county. Leroy Shield, Mayor; C. Cleveland Stanton, Clerk and Reporting Officer.  
 Barnegat City, Ocean county. Wm. H. Bailey, Secretary.  
 Barrington, Camden county. Frederick Shoosch, President; John J. Franke, Secretary and Reporting Officer.  
 Bay Head, Ocean county. B. H. Metcalf, President; Julius Foster, Jr., Secretary and Registrar.  
 Beach Haven, Ocean county. Walter C. Sharp, President; Dr. Herbert Willis, Secretary and Health Officer.  
 Beachwood, Ocean county. Joseph H. Senior, Mayor; Frank J. Turner, Secretary and Health Officer.  
 Belmar, Monmouth county. Jacob Rosenfeld, President; Fred V. Thompson, M. D., Clerk and Registrar; Cook Howland, Sanitary Inspector.  
 Bergenfield, Bergen county. Frank Bleh, President; Henry J. Brock, Secretary; W. Regan, Registrar.  
 Bloomingdale, Passaic county. William Tice, President; James L. Close, Secretary and Reporting Officer.  
 Bloomsbury, Hunterdon county. J. C. Pichel, Clerk and Registrar.  
 Bogota, Bergen county. John T. Black, President; Earlon P. Ross, Secretary; Dr. G. L. Edwards, Inspector.  
 Bound Brook, Somerset county. H. S. Smalley, Jr., President; John W. Reed, Secretary; Chas. McNabb, Health Officer and Registrar.  
 Bradley Beach, Monmouth county. Frank C. Borden, Jr., Mayor; Fred Belcher, Clerk and Registrar; Geo. C. Bostick, Inspector.  
 Branchville, Sussex county. A. A. Ramson, President; G. H. Harding, Registrar.  
 Brielle, Monmouth county. Melville K. Packer, President; H. N. Folk, Secretary.  
 Butler, Morris county. Edward Baum, President; Dr. R. J. McDonald, Secretary; Allen Looker, Registrar.  
 Caldwell, Essex county. Richard J. Waugh, President; A. E. Broadbent, Secretary; Wilson Husk, Health Officer.  
 Califon, Hunterdon county. Lester M. Apgar, President; John W. Beaty, Clerk and Reporting Officer.  
 Cape May Point, Cape May county. Washington Le Nole, President; Frank W. Hughes, Secretary and Reporting Officer; John T. Huff, Health Officer.  
 Carlstadt, Bergen county. W. Lehman, President; Wm. Dormody, Secretary and Reporting Officer; Anthony Sachs, Inspector.  
 Chatham, Morris county. Henry M. Read, President; J. Thomas Scott, Secretary and Reporting Officer; Geo. L. Kelley, Inspector.  
 Chesilhurst, Camden county. James Neary, Mayor; Martha E. Jeddicks, Clerk and Reporting Officer.  
 Clayton, Gloucester county. Dr. G. C. Brown, President; C. F. Fisler, M. D., Secretary and Registrar.  
 Cliffside Park, Bergen county. Robert Cadien, President; O. B. McElwain, Secretary and Registrar.  
 Clinton, Hunterdon county. A. B. Coleman, President; Geo. S. Hall, Secretary and Reporting Officer.  
 Closter, Bergen county. J. M. Haring, President; Alfred Anderson, Secretary and Registrar.

Collingswood, Camden county. Geo. B. Whllder, President; C. C. Powell, Secretary and Registrar.  
 Cresskill, Bergen county. John F. Meyer, President; H. B. Le Manquais, Secretary and Registrar.  
 Deal, Monmouth county. Jacob A. Wolf, Commissioner; Clem Conover, Secretary and Reporting Officer.  
 Demarest, Bergen county. Watson J. Mosier, President; Geo. V. Morton, Secretary and Registrar.  
 Dumont, Bergen county. William E. Caey, President; Henry J. Bersch, Secretary and Reporting Officer; Geo. F. Shafer, Inspector.  
 Dunellen, Middlesex county. Albert J. Meyers, President; Alfred W. Day, Secretary.  
 East Atlantic City, Atlantic county. E. R. Smith, Registrar.  
 East Newark, Hudson county. William Rowley, President; Jos. A. McDonald, Clerk; John Keenan, Reporting Officer.  
 East Paterson, Bergen county. John Cooper, chairman; Wm. S. Childs, Secretary and Registrar; Dr. Morris L. Simon, Health Officer.  
 East Rutherford, Bergen county. Henry Herr, President; Wm. Elsenrauch, Secretary and Registrar; Dr. C. D. Brooks, Health Officer; Fred Taylor, Inspector.  
 Edgewater, Bergen county. Louis J. Scheld, President; Chas. R. Tuite, Secretary and Registrar; Geo. W. Allison, Health Officer.  
 Elmer, Salem county. J. N. Spence, President, I. R. Wentzell, Secretary and Reporting Officer.  
 Emerson, Bergen county. Chas. P. Hopper, President; Arthur J. Sharpe, Secretary and Reporting Officer; Geo. Schafer, Health Officer and Inspector.  
 Englewood Cliffs, Bergen county. E. L. Wood, President; Halone S. Enger, Secretary and Reporting Officer.  
 Englishtown, Monmouth county. J. A. Lambert, President; S. H. Mount, Secretary; S. B. Ely, Registrar; W. E. Anderson, M. D., Health Officer.  
 Essex Fells, Essex county. Edward C. Ehlers, Secretary and Reporting Officer.  
 Fair Haven, Monmouth county. Tunis V. V. Kendrick, President; Arthur B. Sickles, Secretary; William Curchin, Registrar and Reporting Officer.  
 Fairview, Bergen county. Wm. Wingerath, President; E. R. Greenhalgh, Secretary and Registrar.  
 Fanwood, Union county. W. J. Bellerjean, Chairman; H. P. Opydke, Secretary; Samuel McAneny, Reporting Officer.  
 Far Hills, Somerset county. Wm. B. Flomerfelt, President; W. I. Frost, Clerk and Registrar.  
 Farmingdale, Monmouth county. John Cook, President; Wm. H. Thompson, Secretary and Reporting Officer.  
 Fieldsboro, Burlington county. Reuben Parker, President; W. H. Erickson, Secretary and Registrar.  
 Flemington, Hunterdon county. Geo. Webster, President; Barclay S. Fuhrmann, Secretary and Reporting Officer.  
 Floxham Park, Morris county. Chas. H. Gerring, President; Wm. V. Tunis, Secretary and Registrar.  
 Folsom, Atlantic county. Louis Schulse, Secretary and Reporting Officer; Dr. Chas. Cunningham, Health Officer.  
 Fort Lee, Bergen county. Ruby T. Svott, M. D., President; Joseph Cook, Secretary and Reporting Officer; Fred J. Dyer, Health Officer.  
 Franklin, Sussex county. Dr. C. M. Denning, President; James R. Stephens, Secretary and Registrar; Hark M. Clarke, Mrs. J. P. Pulis, Inspector.  
 Franklin Lakes, Bergen county. Wm. V. Pulis, Mayor; Cornelius H. Bush, Reg.; Crystal Lake, Canogaaw.  
 Frenchtown, Hunterdon county. Chas. Williamson, President; E. J. Stryker, Secretary and Registrar; Hugh M. Sinclair, Health Officer.  
 Garfield, Bergen county. Dr. E. Casini, President; Louis Helzmann, Secretary; Dr. Chas. B. Blesby, Reporting Officer and Health Officer.  
 Garwood, Union county. L. M. Wenzel, President; J. A. Wangler, Secretary and Reporting Officer; W. T. Froat, Registrar; William Morris, Inspector.  
 Glassboro, Gloucester county. F. P. Supplee, President; Samuel D. Becket, Secretary and Registrar; Albert I. Turner, Inspector.  
 Glen Gardner, Hunterdon county. David Crampton, President and Reporting Officer; Howard Banghart, Secretary.  
 Glen Ridge, Essex county. H. S. Evans, President; William H. Dewar, Secretary and Registrar.  
 Glen Rock, Bergen county. A. H. Magnusson, President; Geo. H. Snyder, Clerk and Registrar; Geo. H. Lane, Reporting Officer, H. C. Penal, Health Officer, Dr. Joseph Payne, Inspector.  
 Haddonfield, Camden county. Dr. W. R. Jennings, President; Harry G. Griffith, Reporting Officer, Registrar and Health Officer.  
 Haddon Heights, Camden county. A. T. Eaton, M. D., President; E. R. Jenks, Secretary; E. N. C. Davis, Registrar; A. T. Eatin, M. D., Inspector.  
 Haledon, Passaic county. John W. Grimsbaw, President; Thos. B. Kegelman, Clerk and Reporting Officer; A. A. Lydeck, Health Officer and Inspector.  
 Hamburg, Sussex county. Edward L. Staunbuch, President; Frank E. Smith, Secretary and Reporting Officer.  
 Hampton, Hunterdon county. Fred C. Byerlee, President; H. J. Dalrymple, Secretary and Reporting Officer; Edgar Hunt, Inspector.  
 Harrington Park, Bergen county. G. A. Massack, President; H. D. Chapman, Secretary; Dr. C. A. Richardson, Health Officer and Inspector.

- Harvey Cedars, Ocean county. Daniel Hawkins, President, Louis H. Kinzie, Secretary and Reporting Officer.
- Hasbrouck Heights, Bergen county. William L. Moseley, President; Wm. J. Schweickert, Secretary; Reporting Officer and Registrar; Roy G. Perham, M. D., Health Officer; D. M. Davidson, Inspector.
- Haworth, Bergen county. Chas. S. Forbes, President; L. M. Clark, Secretary, Reporting Officer and Registrar.
- Hawthorne, Passaic county. Leo F. Donohoe, President; Edward F. Keefe, Secretary; Joseph Jewett, Reporting Officer and Inspector; Albert Van Berde, M. D., Health Officer.
- Helmetta, Middlesex county. Clinton M. Clemens, President; Carl B. Johnson, Secretary; J. C. Shinn, Health Officer.
- High Bridge, Hunterdon county. Robert Somerville, President and Reporting Officer; Clarence Appar, Secretary.
- Highland Park, Middlesex county. A. P. Daire, President; D. H. McCann, Secretary and Reporting Officer; Dr. Robt. L. McKiernan, Inspector.
- Highlands, Monmouth county. Wm. H. Belge, President; Wm. H. Hennessey, Secretary, Reporting Officer and Registrar; V. H. Havens, Inspector.
- Highstown, Mercer county. D. B. Day, President; G. Allen Ely, Secretary; Dr. Wm. L. Wilbur, Reporting Officer and Medical Inspector.
- Hobokus, Bergen county. F. H. Haviland, President; J. B. Harmon, Secretary and Reporting Officer.
- Hopatcong, Bergen county. Richard Voorhees, President; Alva Nelson, Secretary and Reporting Officer.
- Hopewell, Mercer county. Dr. Robt. P. Miller, President; Fred I. Sutphen, Secretary, Reporting Officer and Registrar.
- Interlaken Boro., Monmouth county. Frank Stick, Mayor, Interlaking, Asbury Park.
- Island Heights, Ocean county. A. B. Ayers, President; R. W. Pettibone, Secretary and Reporting Officer; both of Island Heights.
- Jamesburg, Middlesex county. Harry L. Emmons, Secretary and Reporting Officer, Jamesburg.
- Keansburg, Monmouth county. Edward T. Compton, Clerk and Registrar.
- Kenilworth, Union county. Paul H. Van Derzee, Secretary.
- Keyport, Monmouth county. S. H. Casidy, M. D., President; C. F. Tutthill, Secretary and Registrar.
- Kinnelon, Morris county. (No report.)
- Lakehurst, Ocean county. Wm. H. D. Wilbur, Mayor; Dr. Harold Pittis, Secretary; W. A. Carr, Registrar.
- Laural Springs, Camden county. Dr. Chester Bradley, President; M. A. Wetherill, Secretary; C. J. Clark, Reporting Officer and Registrar.
- Lavalette, Ocean county. James W. Hugley, President; Georgia Strickland (Mrs.), Secretary and Reporting Officer; Peter Bloom, Inspector.
- Leonia, Bergen county. Geo. W. Findley, President; C. J. Kirkland, Secretary and Registrar; Dr. Francis Bartlett Tyson, Health Officer.
- Lincoln Park, Morris county. (No report.)
- Linden, Union county. C. H. Smith, President; J. M. Capraun, Secretary and Registrar.
- Linwood, Atlantic county. J. W. Bird, President; Daniel L. Sutton, Secretary and Reporting Officer; James Farish, Registrar; P. S. Steelman, Inspector.
- Little Ferry, Bergen county. Fred Knapp, President; Joseph Zabransky, Secretary; Carl Lambker, Reporting Officer and Inspector.
- Lodi, Bergen county. John W. Lane, President; W. J. Patterson, Secretary and Reporting Officer; H. R. Brevoort, Health Officer.
- Longport, Atlantic county. William S. Gilmore, Clerk, Registrar and Reporting Officer.
- Madison, Morris county. A. C. Puddington, President; Catherine M. Felch, Secretary; S. Fred Burnet, Registrar.
- Magnolia, Camden county. Dr. L. C. Lyon, President; Alex Montgomery, Secretary, Registrar and Reporting Officer.
- Manassquan, Monmouth county. Thomas P. Frazee, President; Robert M. Marks, Secretary and Reporting Officer; D. A. Norris, Health Officer; Alonzo Mount, Inspector.
- Mantoloking, Ocean county. Theodore Peters, President; Ollie M. Hulse, Secretary and Reporting Officer, both of Mantoloking.
- Matawan, Monmouth county. C. A. Gerswine, M. D., President; W. A. Rodgers, Secretary and Reporting Officer.
- Maywood, Bergen county. Henry Heck, President; G. M. Fetzer, Secretary, Reporting Officer, Registrar.
- Meadham, Morris county. G. S. De Groot, M. D., President; G. S. Thompson, Secretary, Reporting Officer and Registrar.
- Merchantville, Camden county. Arthur E. Craig, Secretary.
- Metuchen, Middlesex county. H. F. Smith, President; Chas. P. Hull, Secretary and Registrar.
- Middlesex, Middlesex county. Henry J. Oesterling, President; Arthur S. Moore, Secretary, Reporting Officer and Registrar.
- Midland Park, Bergen county. Barney Y. Snow, President; Jacob H. Olthuis, Secretary and Registrar; Dr. J. Payne, Reporting Officer and Inspector.
- Milford, Hunterdon county. A. D. Spoor, President; Frank P. Vanderbilt, Secretary and Reporting Officer; Arthur Hell, Inspector.
- Millsstone, Somerset county. John W. Hutchinson, President; E. M. Davis, Clerk and Reporting Officer.
- Milwton, Middlesex county. John H. Jonker, President; Henry A. Christ, Secretary; John W. Dorn, Reporting Officer.
- Monmouth Beach, Monmouth county. Jacob S. Manahan, President; Joel R. Wooley, Secretary and Reporting Officer.
- Montvale, Bergen county. A. F. Girard, President; Walter Wellman, Secretary and Registrar.
- Monachie, Bergen county. Sebastian Gerardi, President; Bernard A. Love, Secretary and Registrar.
- Mountainside, Union county. Chas. H. Murphy, President; Robert Laing, Secretary, Registrar and Health Officer.
- Mount Arlington, Morris county. R. T. Chaplin, President; T. L. Schafer, Secretary; F. H. Tappen, Inspector.
- Mount Labor, Morris county. A. O. Fitzgerald, President; R. A. Lawless, Secretary; Geo. W. Earl, Reporting Officer, Inspector; John H. Ward, Registrar.
- National Park, Gloucester county. Mrs. Josephine Cleveland, President; Wm. E. Beers, Secretary and Reporting Officer.
- Neptune City, Monmouth county. Frank Larrison, President; Sharon F. Smith, Secretary and Reporting Officer; Daniel Goudly, Inspector.
- Netcong, Morris county. A. A. King, President; J. P. Meade, Secretary and Reporting Officer.
- New Milford, Bergen county. Frank C. Clark, President; Geo. Gengenagel, Clerk and Registrar; Chester A. King, Health Officer.
- New Providence, Union county. William J. Kaufman, President; William Woodruff, Clerk and Registrar; Horace B. Guerin, Inspector.
- North Arlington, Bergen county. Frank Stumpf, President; Edward F. Schayer, Clerk and Registrar; William Miller, Health Inspector.
- North Caldwell, Essex county. W. B. McCall, President; Frank Francisco, Secretary and Reporting Officer; Allen C. Bach, Health Officer.
- North Haledon, Passaic county. Wm. H. Ballentine, President; Joseph Graham, Secretary; Dr. A. A. Lydecker, Reporting Officer.
- North Plainfield, Somerset county. James L. Love, President; Dr. A. H. Dundon, Secretary and Reporting Officer; Gas. L. Ollif, Health Officer.
- Northville, Bergen county. Henry Campara, President; Jacob Scharer, Clerk and Registrar; Dr. Chas. A. Richardson, Inspector.
- North Wildwood, Cape May county. Dr. Margaret Mace, President; Wm. C. Epler, Secretary and Registrar.
- Norwood, Bergen county. Walter Quackenbush, President; Clifton Demarest, Secretary and Registrar.
- Oakland, Bergen county. John McNaughton, President; John Eve, Secretary; E. W. Hamilton, M. D., Reporting Officer and Inspector.
- Oaklyn, Camden county. W. B. McMullen, Mayor; Richard D. Early, Secretary and Reporting Officer.
- Ocean City, Cape May county. T. Lee Adams, Reporting Officer and Health Officer.
- Ocean Gate, Ocean county. H. D. Black, Chairman and Reporting Officer.
- Ocean Grove, Monmouth county. Titian Summers, President; C. H. Tucker (Mrs.), Secretary; Frank B. Smith, Reporting Officer.
- Oceanport, Monmouth county. R. Cook, President; L. H. Wolcott, Secretary and Reporting Officer.
- Ogdensburg, Sussex county. Francis J. Kanally, President; Frank L. Gregory, Secretary and Registrar; Harris Day, M. D., Inspector.
- Old Tappan, Bergen county. J. Z. Bogart, President; Chas. De Wolf, Clerk and Registrar.
- Oradell, Bergen county. J. D. Hoffmire, President; G. R. Spalding, Secretary and Reporting Officer; Dr. C. A. King, Health Officer.
- Paisdale Park, Bergen county. Louis Quad, President; W. G. Stevens, Secretary and Registrar.
- Paramus, Bergen county. F. N. Greenlaw, President; John Nutry, Secretary; Irving Yearneau, Registrar, all of Ridgewood.
- Perth Amboy, Middlesex county. Chas. I. Silk, M. D., President; Anna Burkhardt, Secretary; Dr. Chas. S. Thompson, Health Officer and Reporting Officer.
- Park Ridge, Bergen county. Dr. S. Alexander, President; T. G. Forbes, Clerk and Registrar.
- Paulsboro, Gloucester county. Elizabeth J. Stines (Mrs.), President; S. Walter Loucks, Secretary, Registrar and Health Officer.
- Peapack, Somerset county. John Frost, President; F. H. Ludlow, Clerk and Reporting Officer.
- Pemberton, Burlington county. A. I. Davis, President; J. Elden Ridgway, Secretary and Reporting Officer.
- Pennington, Mercer county. William R. Little, M. D., President; Charles M. Titus, Clerk and Reporting Officer; Frank A. Blackwell, Inspector.
- Pennsgrove, Salem county. Samuel J. Hurff, President; Wm. F. Yeager, Secretary and Registrar; J. F. Summers, Inspector.
- Pitman, Gloucester county. David H. Shock, President; Albert V. Peterson, Secretary, Registrar and Reporting Officer.
- Point Pleasant Beach, Ocean county. Dr. C. D. Ripley, President; A. H. Wack (Mrs.), Secretary; H. C. Shoemaker, Jr., Registrar; David B. Tice (Mrs.), Inspector.
- Point Pleasant, Ocean county. Abram W. Johnston, President; Peter B. Erickson, Secretary and Registrar.
- Pompton Lakes, Passaic county. Horace L. Wells, President; Wallace P. Romaine, Secretary; Thomas Wood, Reporting Officer.
- Princeton, Mercer county. Dr. Norman Tooker, President; W. B. Howe, Secretary; William C. Blake, Reporting Officer and Registrar.
- Prospect Park, Passaic county. Cornelius Hoiland, President; Lambertus Towse, Secretary and Registrar; A. A. Lydecker, M. D., Health Officer.

Ramsey, Passaic county. F. C. Bowles, President; H. R. Parvin, Secretary and Reporting Officer.

Red Bank, Monmouth county. Dr. W. A. Rullman, President; Willis Clayton, Secretary and Reporting Officer.

Ridgefield, Bergen county. Chas. H. Ahearns, Jr., President; Victor Ansel, Secretary and Reporting Officer.

Ringwood, Passaic county. Eric Lamburg, President; John Stephens, Secretary and Reporting Officer; Oliver H. Roome, Registrar.

Riverside, Bergen county. W. L. Kehl, Secretary and Reporting Officer; G. F. Sluater, Inspector.

Riverton, Burlington county. Chas. W. Wanger, President; Harry L. Rogers, Secretary; Fred C. Witte, Reporting Officer and Health Officer.

Rockaway, Morris county. James H. Bothe, Mayor; Wm. A. Parlman, Clerk and Reporting Officer; Frederick Herbert, Inspector.

Rocky Hill, Somerset county. C. R. Baldwin, President; Randall Wilson, Secretary and Registrar.

Roosevelt, Middlesex county. Edward J. Hell, President; R. Joseph Murphy, Clerk; Frank Born, Reporting Officer; C. C. Sheridan, Registrar.

Roseland, Essex county. H. G. Rinkle, President; E. A. Williams, Secretary and Registrar.

Roselle, Union county. Wm. P. Howe, President; Jos. E. Greene, Secretary; Wm. Morris, Reporting Officer, Health Officer and Registrar.

Roselle Park, Union county. John W. Wirth, President; Chas. E. Renton, Secretary, Registrar and Reporting Officer.

Rumson, Monmouth county. Jas. E. Bogle, Secretary; Dewitt Scott, Inspector.

Rutherford, Bergen county. C. L. Barrows, President; John De Groot, Secretary; Marine Dunn, Reporting Officer.

Saddle River, Bergen county. G. M. Eckert, President; Russel G. Ackerman, Secretary.

Sayreville, Middlesex county. G. H. Gehman, President; P. F. McUTCHEON, Clerk, Reporting Officer and Registrar.

Seabright, Monmouth county. Abram Embley, President; Walter Sweeney, Secretary; Martin Dowd, Inspector.

Seaside Heights, Ocean county. Samuel Tollins, Jr., Clerk.

Seaside Park, Ocean county. Dr. L. L. Righter, President; Arthur Clayton, Secretary; Aaron Wilbert, Reporting Officer and Registrar; Wm. Bates, Inspector.

Secaucus, Hudson county. Chas. Kunschaft, President; Gerson Lowenstein, Clerk and Reporting Officer.

Sea Girt, Monmouth county. Eleanor Spencer (Mrs.), President; Elizabeth Cramer, Secretary, Registrar and Reporting Officer; Chas. H. Roberts, Inspector.

Somerville, Somerset county. Henry Well, President; Wm. R. Sutphin, Secretary and Reporting Officer; Geo. D. Totten, Inspector.

South Bound Brook, Somerset county. Dr. J. T. Robinson, President; T. L. Walters, Secretary and Reporting Officer.

South Cape May, Cape May county. E. B. Martin, Borough Clerk and Reporting Officer.

South River, Middlesex county. David Armstrong, President; Wm. R. Peterson, Secretary; Dr. S. E. Selover, Reporting Officer and Inspector.

Spotwood, Middlesex county. James Beebe, President; Mrs. Lillian Baguet, Secretary and Reporting Officer.

Spring Lake, Monmouth county. Dr. S. R. Knight, President; D. H. Hills, Secretary and Reporting Officer.

Stanhope, Sussex county. Peter J. Kelly, President; J. J. Shaw, Secretary.

Stockton, Hudson county. Col. H. M. Reading, President; Wm. P. Mason, Secretary and Reporting Officer.

Stone Harbor, Cape May county. Edw. T. Frier, Clerk.

Surf City, Ocean county. H. L. Lukens, Borough Clerk.

Sussex, Sussex county. Dr. H. D. Gassbeck, President; F. B. Ewald, Secretary and Reporting Officer; L. J. Fuller, Inspector.

Swedesboro, Gloucester county. W. W. Mole, President; Clifford L. Pither, Secretary and Reporting Officer; E. E. Downs, Inspector.

Tavistock, Camden county. (No report.)

Tenady, Bergen county. Herman D. Hensel, Secretary and Reporting Officer; Edwin Blackwell, Inspector.

Teterboro, Bergen county. John Srunck, Chairman; E. H. Schaeffer, Registrar and Reporting Officer; Louis Behrens, Clerk, all of Hasbrouck Heights.

Totowa, Passaic county. Ralph I. Wilson, President; Ernest Morrell, Secretary and Registrar; Wm. Veestra, M. D., Health Officer.

Truckerton, Ocean county. James E. Otis, President; John H. Kohler, Secretary and Reporting Officer.

Upper Saddle River, Bergen county. Carl Ibsen, President; August Wells, Secretary, Reporting Officer and Inspector.

Verona, Essex county. William Snyder, President; Louis C. Miller, Secretary; Dr. E. M. Kelly, Reporting Officer and Health Officer.

Vinaland, Cumberland county. Annie P. E. Myers, President; Louis Basso, Secretary, Reporting Officer and Registrar; Dr. J. H. Winslow, Health Officer; W. H. Blake, Inspector.

Walidway, Bergen county. Dr. S. E. Robinson, President; Harvey Springstead, Secretary, Registrar and Reporting Officer.

Wallington, Bergen county. Edward Taylor, President; James J. Brennan, Secretary, Reporting Officer and Registrar.

Wanaque, Passaic county. Dr. D. N. Shippee, President; Joseph C. Beam, Secretary; Dr. D. N. Shippee, Inspector.

Washington, Warren county. F. J. La Riev, M. D., President; R. B. Groat, Secretary and Registrar; Geo. C. Losey, Reporting Officer and Inspector.

Wenonah, Gloucester county. Joseph E. Troncher, President; Jesse W. English, Secretary and Registrar, Geo. H. Buzby, Health Inspector; Dr. Harry A. Stout, Med. Insp.

West Caldwell, Essex county. Peter S. Johnson, President; Herbert Francisco, Secretary and Reporting Officer.

West Cape May, Cape May county. W. H. Smith, President; F. R. Hughes, Secretary and Reporting Officer.

West Long Branch, Monmouth county. Frank L. Price, President; J. Russell Woolley, Clerk and Reporting Officer.

West Paterson, Passaic county. A. F. Graham, Director; Floyd Hughes, Clerk and Reporting Officer, R. F. D., Little Falls.

Westville, Gloucester county. W. F. McKinney, President; W. B. Atkinson, Secretary, Registrar and Reporting Officer.

West Wildwood, Cape May county. Geo. B. Skirving, President; Mrs. Jane Bacon, Secretary; Jos. E. Wright, Registrar and Reporting Officer.

Westwood, Bergen county. James Mussor, Jr., President; James Ackerman, Secretary, Reporting Officer and Registrar; Irving J. Demarest, Inspector.

Wharton, Morris county. James Williams, President; W. C. Myers, Secretary, Reporting Officer and Registrar.

Wildwood Crest, Cape May county. R. Scampton, President; E. B. Fagan, Clerk, Reporting Officer and Registrar.

Woodbine, Cape May county. I. V. Stone, President; P. Greenstein, Secretary; Dr. Joffe and Dr. Wap, Reporting Officers; R. Zellinger, Inspector.

Woodbury Heights, Gloucester county. H. C. Brose, President; Paul L. Gerard, Secretary and Reporting Officer; Dr. Ralph K. Hollinshead, Inspector.

Woodcliff Lake, Bergen county. Edwin Gibbs, President; N. B. Ackerman, Secretary and Reporting Officer.

Woodbury, Camden county. Arthur Newman, President; Christian Dupont, Secretary and Reporting Officer.

Wood Ridge, Bergen county. Chas. Nussbaum, President; John Heathwood, Secretary and Registrar.

Woodstown, Salem county. H. V. Foster, President; F. P. Vanler, Secretary, Registrar and Inspector.

Wrightstown, Burlington county. Chas. Mergard, President; Edgar Gravatt, Secretary and Reporting Officer.

## TOWNS.

Belleville, Essex county. Henry J. Mason, President; John L. Flanagan, Secretary; W. Brand Smith, Reporting Officer and Health Officer.

Belvidere, Warren county. Dr. Frank R. Leferts, President; Ira Sarson, Secretary; Geo. Laturner, Inspector.

Bloomfield, Essex county. Jacob S. Wolfe, M. D., President; Joseph C. Saile, Secretary, Reporting Officer, Registrar and Health Officer.

Boonton, Morris county. Byron E. Colman, President; F. N. Banta, Secretary and Reporting Officer; Fred P. Worman, Health Officer.

Doer, Morris county. Wm. G. Hummel, President and Registrar; Wm. H. Tonking, Secretary and Reporting Officer; John C. Taylor, Health Officer.

Freehold, Monmouth county. C. J. Strahan, President; Harvey S. Brown, Secretary, Reporting Officer and Health Officer.

Guttenberg, Hudson county. Chas. Yeager, President; Jacob Sarady, Clerk and Reporting Officer; Dr. J. Laurence Evans, Inspector.

Hackensack, Bergen county. Dr. Frank Freeland, President; Virginia Chestwood, Secretary; Madeline Gurdhart, Reporting Officer; Malcolm Lewis, Health Officer.

Hackettstown, Warren county. Wallace Taylor, President; A. G. Boettiger, Secretary and Reporting Officer; B. H. Woodruff, M. D., Inspector.

Hammonton, Atlantic county. E. H. Witte, President; Wayland De Puy, Secretary, Reporting Officer and Registrar.

Harrison, Hudson county. John T. Malone, President; Eugene A. Riordan, Secretary; John T. McClure, Reporting Officer and Health Officer.

Irvinton, Essex county. Francis S. Green, President; Jos. K. Clickenger, Reporting Officer and Inspector.

Kearny, Hudson county. Dr. A. A. Mitter, President; A. B. Anderson, Secretary; H. V. Ammerman, Reporting Officer, Health Officer.

Montclair, Essex county. William H. Arson, M. D., President; Wm. N. Chesnut, Secretary; H. B. Larner, Health Officer.

Morristown, Morris county. Dr. G. A. Decker, President; James D. Bell, Secretary, Reporting Officer and Registrar; John F. Kilkeny, Inspector.

Newton, Sussex county. Dr. Warren H. Smith, President; Chas. Fredenburgh, Secretary; Wm. M. Fisher, Reporting Officer and Inspector.

Natley, Essex county. Ernest P. Cook, Commissioner; Eugene H. Sullivan, Health Officer.

Phillipsburg, Warren county. John Houser, President; Alva L. Milliston, M. D., Secretary, Reporting Officer and Health Officer.

Town of Union, Hudson county. Wm. J. Sweeney, M. D., President; Geo. H. Grebe, Secretary and Reporting Officer; Dr. Grant P. Curtis, Health Officer.

Westfield, Union county. Dr. R. G. Savage, President; C. W. Harden, Clerk, Reporting Officer and Registrar.

West Hoboken, Hudson county. D. B. Ellis, President; Frank A. Frederick, Secretary, Reporting Officer and Health Officer.



West New York, Hudson county. Fred Schneider, President; Edw. D. Dilworth, Secretary; Rudolph Knize, Reporting Officer and Inspector.  
 West Orange, Essex county. Alfred N. Pierson, President; D. E. Buckley, Secretary, Registrar and Health Officer.

VILLAGES.

Ridgefield Park, Bergen county. Frank A. Lloyd, President; Howard B. Ficken, Secretary, Reporting Officer and Registrar.  
 Ridgewood, Bergen county. R. W. Muns, President; F. L. Zabriske, Secretary; Dr. H. H. Pettit, Reporting Officer and Health Officer; R. B. Murphy, Inspector.  
 South Orange, Essex county. R. D. Freeman, M. D., President; Arthur Dillon, Secretary; A. C. Benedict, Registrar and Inspector.

TOWNSHIPS.

Alexandria, Hunterdon county. Harver B. Stout, President; Raymond Williamson, Secretary and Reporting Officer, both of Milford, R. F. D. No. 2.  
 Allamuchy, Warren county. I. J. Reeder, President, Great Meadows; Wm. Kirby, Secretary and Reporting Officer; Wm. Grover and John Wilson, Inspectors, all of Allamuchy.  
 Alloway, Salem county. Jao. E. Crawler, President; F. A. Shivaler, Secretary and Reporting Officer, both of Alloway.  
 Andover, Sussex county. Thomas J. Cuff, President, R. D. No. 3, Newton; W. H. Frits, Secretary and Reporting Officer, R. D. No. 1, Newton.  
 Atlantic, Monmouth county. Jonathan H. Jones, Secretary, Holmdel; James P. Deamund, Reporting Officer, Colts Neck.  
 Bass River, Burlington county. William T. Cramer, President; C. S. Cramer, Secretary, Reporting Officer and Registrar, both of New Gretna.  
 Bedminster, Somerset county. A. L. Nevin, President, Bedminster; H. McMurty, Secretary, Reporting Officer and Registrar, R. F. D. No. 5, Somerville.  
 Berkeley, Ocean county. Hiram P. Cotrell, President; Newell R. Harker, Clerk and Reporting Officer; Frank Brouwer, Inspector, all of Toms River.  
 Berlin, Camden county. Dr. Rangley, President; X. H. Ottiger, Secretary and Reporting Officer; Dr. F. C. Stern, Inspector, all of Berlin.  
 Bernards, Somerset county. Freeman Steele, President Millington; Jos. B. Kronenberg, Secretary and Registrar; Dr. J. Meigh, Health Officer, both of Bernardsville.  
 Bethlehem, Hunterdon county. Geo. H. Trout, Chairman; R. D. Asbury; Wm. A. Diller, Secretary and Reporting Officer, Bloomsbury.  
 Beverly, Burlington county. Frank P. Jones, President; Jos. B. Carter, Clerk and Reporting Officer, Delanco.  
 Blairtown, Warren county. P. J. Shotwell, President, Delaware; Jos. A. Dugan, Clerk, Vail; Dr. H. O. Carhart, Inspector, Blairstown.  
 Boonton, Morris county. F. J. Morgan, President, Mountain Lakes; Edmund H. Stickle, Clerk, Reporting Officer and Registrar, R. D. No. 2, Boonton.  
 Bordentown, Burlington county. Dr. C. D. Mendenhall, President; Samuel Johnson, Secretary and Reporting Officer; J. H. Colkitt, Registrar; Dr. Hugh Le Jambre, Inspector, all of Bordentown.  
 Branchburg, Somerset county. Geo. D. Wilson, President, R. D. Somerville; Wm. H. Higgins, Secretary and Reporting Officer; Dr. H. V. Davis, Inspector, both of North Branch.  
 Brick, Ocean county. C. C. Pearce, Committeeman, Laurelton; J. H. Le Compt, Secretary and Reporting Officer, Herbertville.  
 Bridgewater, Somerset county. Samuel Glasser, President; John Slattery, Secretary and Registrar; Geo. W. Hope, Inspector, all of Bridton.  
 Buena Vista, Atlantic county. Orville B. Scaris, President; Douglas Reel, Secretary, both of Vineland.  
 Burlington, Burlington county. Thomas P. Birckett, President; Thomas E. Gandy, Secretary, both of Burlington.  
 Byram, Sussex county. Walter Burdge, President, Waterloo; Chas. D. Carter, Secretary and Reporting Officer, Andover.  
 Caldwell, Essex county. F. E. Kent, President; C. Dey, Secretary and Reporting Officer, both of Fairfield.  
 Cedar Grove, Essex county. Lewis G. Rowden, President, Cedar Grove; H. B. Whitehorse, Secretary, Verona; Dr. Edw. M. Reilly, Reporting Officer and Health Officer, Cedar Grove.  
 Canby, Camden county. John H. Bowers, Jr., President; Wm. F. Miller, Secretary and Reporting Officer, both of R. F. D. No. 2, Collingswood.  
 Chatham, Morris county. Edward Littlejohn, President; Frank S. Conger, Secretary and Reporting Officer, both of R. D. No. 2, Chatham.  
 Chester, Burlington county. Rush D. Rogers, President; Dr. F. G. Stroud, Secretary and Reporting Officer, both of Moorestown.  
 Chester, Morris county. Geo. W. Howell, President; J. Cecil Hoffman, Secretary, Reporting Officer and Registrar, both of Chester.  
 Chesterfield, Burlington county. C. M. Bunting, President; Wm. Wallace, Clerk, Reporting Officer and Registrar, both of Cross-ticks.  
 Cinnaminson, Burlington county. Howard H. Taylor, President; Gerce C. Frank, Secretary and Reporting Officer; Dr. F. C. White, Inspector, all of Riverton.  
 Clark, Union county. Henry T. Schire, President; Chas. H. Brewer, Secretary and Reporting Officer, both of R. F. D. No. 2, Rahway.

Clementon, Camden county. Edw. B. Jaggard, President, Clementon; Geo. W. Evans, Secretary, Lindenwold; Dr. Wm. C. Raughley, Inspector, Berlin.  
 Clinton, Hunterdon county. M. J. Wiggins, President; Howard Biggs, Secretary, Reporting Officer, Registrar; Dr. C. G. Boyer, Health Officer and Inspector, all of Annandale.  
 Commercial, Cumberland county. O. G. Shropshire, President; Walter Sharp, Secretary and Reporting Officer; J. N. Fowler, Inspector, all of Port Norris.  
 Cranbury, Middlesex county. LeRoy Scott, President; G. Raymond Wicoff, Secretary, both of Cranbury.  
 Cranford, Union county. John G. Rouch, President; Alfred H. Miller, Secretary, Reporting Officer and Inspector, all of Cranford.  
 Deerfield, Cumberland county. E. R. Parvin, Chairman, Reporting Officer and Inspector, Deerfield; James McNab, Secretary, Bridgeton, R. F. D. No. 3.  
 Delaware, Camden county. W. B. Groff, President; W. B. Jennings, Secretary, Registrar and Health Officer, all of Haddonfield.  
 Delaware, Hunterdon county. John S. Gray, President, R. F. D., Stockton; Amos Wilson, Secretary and Reporting Officer, Sand Brook; Geo. N. Best, Health Officer, Rosemont.  
 Delran, Burlington county. L. S. Fartnum, President; Geo. Friday, Clerk and Registrar, both of Bridgeboro.  
 Dennis, Cape May county. Albert E. Corson, President, Dennisville; Thomas J. Durrell, Secretary and Reporting Officer, Belleplain.  
 Denville, Morris county. Calvin L. Laurence, President, Dover; Joseph Ellsworth, Clerk, Reporting Officer and Registrar, Denville; Geo. H. Foster, Inspector, Rockaway.  
 Deptford, Gloucester county. Alfred Jeggard, Chairman, Blackwood; E. K. Turner, Secretary and Reporting Officer, Sewell; Israel Blumberg, Inspector, Westville.  
 Dover, Ocean county. Lucien B. Gravatt, President; Theodore Fischer, Clerk and Reporting Officer; Dr. Frank Brouwer, Inspector, all of Toms River.  
 Downe, Cumberland county. Harry E. Love, President; Sheppard Campbell, Clerk, Reporting Officer, Registrar, both of Newport.  
 Eagleswood, Ocean county. Harper J. Rulon, President; Robert F. Rutter, Secretary, Reporting Officer and Registrar, both of West Creek.  
 Easthampton, Burlington county. C. H. Cooper, Chairman, Smithville; J. P. Croshaw, Secretary and Reporting Officer; Dr. E. D. Erickitt, Inspector, both of Mt. Holly.  
 East Amwell, Hunterdon county. C. C. Polhemus, President, Clover Hill; William Fless, Secretary and Reporting Officer; Dr. F. C. Young, Inspector, Ringoes.  
 East Brunswick, Middlesex county. Henry Varnodorf, Chairman, R. B. Herbert, Secretary and Reporting Officer, R. F. D. No. 3, New Brunswick; Dr. F. Riva, Inspector, Milltown.  
 East Greenwich, Gloucester county. Amos G. Haines, President, Clarksboro; J. C. Dawson, Clerk, Reporting Officer and Registrar, Mickleton.  
 East Windsor, Mercer county. Chas. S. Lee, Chairman and Reporting Officer; Elmer F. Eilers, Secretary, both of Hightstown.  
 Eatontown, Monmouth county. J. C. Rush, President; W. E. Morris, Secretary, both of Eatontown; E. W. Crater, M. D., Reporting Officer and Inspector, Oceanport.  
 Egg Harbor, Atlantic county. Fred Murray, President, McKee City; Chas. L. Smith, Clerk, R. F. D., Mars Landing; Wm. Housenstijn, Reporting Officer and Registrar, Motor Route A, Atlantic City; W. J. Hudson, Health Officer Pleasantville.  
 Elk, Gloucester county. Louis Kerns, President, Monroeville; H. E. Mayhew, Secretary and Reporting Officer, Aurn.  
 Elizabethtown, Essex county. J. Lia Smith, President and Reporting Officer; David B. Fox, Clerk, R. F. D. No. 3, Salem.  
 Evesham, Burlington county. B. Melvin Stow, President; B. K. Brick, Secretary and Reporting Officer, both of Marlton.  
 Ewing, Mercer county. Wm. S. Morris, President; Wm. G. V. Haas, Clerk, R. F. D. No. 1, Trenton; Dr. F. S. Watson, Reporting Officer and Health Officer, 811 Stuyvesant Avenue, Trenton.  
 Fairfield, Cumberland county. James B. Mulford, President and Reporting Officer, Fairton; W. Mulford Johnson, Secretary, Bridgeton, R. F. D. No. 7.  
 Florence, Burlington county. Chester Emmons, President; Byron Carty, Secretary, both of Florence.  
 Frankford, Sussex county. Dr. A. A. Ranson, President, Branchville; Geo. W. Smith, Secretary, Reporting Officer and Registrar, R. F. D., Augusta.  
 Franklin, Bergen county. Geo. C. Demarest, President; C. H. Bush, Secretary, both of Crystal Lake; Joseph Payne, Inspector, Midland Park.  
 Franklin, Gloucester county. H. M. Golde, President, Franklinville; Chas. H. Lincoln, Clerk and Reporting Officer, Vineland, R. F. D.  
 Franklin, Hunterdon county. G. R. Robeson, Chairman; A. E. Robeson, Secretary, Reporting Officer and Registrar, Pittstown, R. F. D. No. 1.  
 Franklin, Somerset county. C. H. Sydam, President; John L. Totten, Secretary and Reporting Officer, both of New Brunswick, R. F. D. No. 5; Dr. J. H. Cooper, Inspector, Middlebush.  
 Franklin, Warren county. John A. Hulsizer, Chairman; C. H. Hoagland, Secretary, Reporting Officer and Registrar, both of Asbury.  
 Fredon, Sussex county. Chas. C. Bell, President; W. N. Westbrook, Secretary and Reporting Officer, both of Newton, R. F. D. No. 2.  
 Freehold, Monmouth county. Wm. Barkalow, President, Freehold; Viola Tuzanau, Clerk, R. F. D. No. 4, Freehold; Geo. W. MacMillan, M. D., Reporting Officer and Health Officer, Freehold.  
 Frelinghuysen, Warren county. James Toomatte, Chairman, Newton, R. F. D.; W. C. Cook, Secretary, Reporting Officer and Registrar, Johnsonburg.

Galloway, Atlantic county. J. L. Purzner, Chairman and Reporting Officer; Chas. F. Stuckel, Secretary, Egg Harbor, R. F. D. No. 1.

Gloucester, Camden county. Geo. A. Avery, Chairman; J. Summerhill Chew, Secretary and Reporting Officer, both of Greenlock; J. Anson Smith, M. D., Health Officer, Blackwood, Green, Sussex county. D. H. Loncor, President, R. F. D., Newton; I. L. La Bar, Secretary, Reporting Officer and Registrar, Tranquility.

Greenwich, Gloucester county. Joseph Cook, Chairman, R. F. D. No. 2, Bridgeton; Norman Wright, Secretary and Reporting Officer, Greenwiche.

Greenwich, Gloucester county. James Devault, President, Paulsboro; Jacob Allen, Secretary, Reporting Officer and Registrar; Dr. E. French, Inspector, both of Gibbstown.

Greenwich, Warren county. Geo. C. Hamblen, President, Stewartsville; Wm. Sherrer, Clerk and Reporting Officer, Bloomfield; Dr. E. A. Curtis, Inspector, Stewartsville.

Haddon, Camden county. Alfred M. Mathews, Chairman; J. M. Ackley, Clerk, Reporting Officer and Registrar, both of Westmont.

Hamilton, Atlantic county. Alexander Dennenile, President; Thompson G. Hoover, Secretary and Reporting Officer; J. C. James, Health Officer, all of Mays Landing.

Hamilton, Mercer county. Dr. F. E. Zandt, President, Hamilton Square; John M. Anderson, Secretary, Mercerville; James N. Reed, Reporting Officer, 148 E. Washington Street, Trenton.

Hampton, Sussex county. J. Martin Conse, President; J. W. Thompson, Clerk and Reporting Officer, E. E. Beaty, Inspector, all of Newton.

Hanover, Morris county. Dr. R. V. D. Totten, President; Stanley H. Lyon, Secretary, Reporting Officer and Registrar, both of Morris Plains.

Harding Morris county. Charles Castle, Chairman, Gillette; N. D. Goble, Secretary, R. F. D. No. 2, Morristown, N. J.

Hardwick, Warren county. Frank Primrose, President; A. R. Mott, Clerk and Reporting Officer, both of Marksboro.

Hardyston, Sussex county. Jacob J. Henderson, Chairman; Herbert M. Lewis, Secretary and Reporting Officer, both of Stockholm; Dr. J. G. Coleman, Inspector, Hamburg.

Harmony, Warren county. Dr. E. Bessard, President; Freeman Schuler, Secretary and Reporting Officer, both of R. D. No. 2, Phillipsburg.

Harrison, Gloucester county. Geo. H. Horner, President; W. A. Jones, Secretary and Reporting Officer, both of Mullica Hill.

Hillsboro, Somerset county. C. V. H. Conover, Chairman, South Branch; J. E. Anderson, Secretary, Neshaun; Walter French, Reporting Officer and Inspector, Millstone.

Hillsdale, Bergen county. Albert H. Stouns, President; John W. Kinmouth, Clerk, Reporting Officer and Registrar, both of Hillsdale.

Hillside, Union county. James Fred'k Chapman, President; John Leyser, Secretary, Reporting Officer and Registrar, both of Hillside.

Hoboken, Bergen county. D. Vanderbeck, President, Ramsey; Albert Winter, Secretary and Reporting Officer, Mahwah; H. E. Gillett, Inspector, Ramsey.

Holland, Hunterdon county. Wm. E. Phillips, President; Frank S. Huff, Clerk and Reporting Officer, Millford, R. F. D. No. 2.

Holmdel, Monmouth county. John S. Van Mater, Chairman, Hazlet; Alex L. McClees, Secretary and Reporting Officer; Sidney V. Bray, Inspector, both of Holmdel.

Hope, Warren county. Geo. A. Henry, President, Great Meadows; C. R. Westbrooke, Secretary, Reporting Officer and Registrar; Dr. Walter Stoun, Inspector, both of Hope.

Hopewell, Cumberland county. Walter Shute, President, R. F. D., Irington.

Hopewell, Mercer county. Peter O. Voorhees, President, R. F. D. No. 1, Skillman; Jos. R. Borongius, Secretary, Reporting Officer and Registrar, Glen Moore; Dr. J. W. Richards, Inspector, Pennington.

Howell, Monmouth county. Percy F. Farry, Chairman, Farmingdale; Elmer C. Hall, Secretary and Reporting Officer, Freshburg.

Hudson county. James L. Lynch, Secretary, Jersey City.

Independence, Warren county. A. E. Leigh, Chairman; F. W. Haggerty, M. D., Secretary and Reporting Officer, both of Vienna.

Jackson, Ocean county. Wm. V. Horner, Chairman; Furman Thompson, Clerk and Registrar, both of Vanhiseville.

Jafferson, Morris county. J. D. Laurman, Chairman; B. W. Bright, Secretary, Reporting Officer and Registrar, both of R. F. D., Wharton.

Kingwood, Hunterdon county. Jas. H. Haun, President, R. D., Stockton; Wm. H. Kugler, Clerk, Reporting Officer and Registrar, Raven Rock; F. S. Grun, Inspector, Frenchtown.

Knowlton, Warren county. Woodley Brugler, Secretary; Wm. De Cae, Inspector, both of Columbia.

Lacey, Ocean county. Jos. M. Peckworth, Chairman; David A. Parker, Secretary and Reporting Officer, Forked River.

Lafayette, Sussex county. Jos. Slaughter, President; William S. Vought, Secretary and Reporting Officer, both of Lafayette.

Lakewood, Ocean county. Arthur R. Smock, President; George Garon, Secretary; I. Scudder Fisher, Reporting Officer and Registrar; Wm. T. Mason, Inspector, all of Lakewood.

Landis, Cumberland county. Dr. L. F. Hatch, President, Reporting Officer and Inspector; E. E. Howe, Secretary, both of R. F. D. No. 3, Vineland.

Lawrence, Cumberland county. Morgan G. Husted, chairman; A. Addison Sever, Clerk, both of Cedarville.

Lawrence, Mercer county. Edmund C. Whitehead, President, R. F. D., Trenton; Frank Pierson, Secretary and Reporting Officer, Lawrenceville.

Lebanon, Hunterdon county. Frank Weaver, President; A. B. Castner, Reporting Officer and Registrar, both of R. F. D., Glen Gardner.

Linden, Union county. Geo. McGilivray, President; Henry A. Klubensples, Secretary and Reporting Officer, both of Linden.

Little Egg Harbor, Ocean county. Henry G. Gifford, President; Millard F. Parker, Clerk, Reporting Officer and Registrar, both of Parkertown.

Little Falls, Passaic county. John Hannill, Chairman; B. S. Briggs, Clerk; James Steel, Reporting Officer and Registrar; W. H. Young, M. D., Health Officer, all of Little Falls.

Livingston, Essex county. A. P. Squire, President, Chatham; A. Ross Force, Secretary; Enoch E. Burnet, Reporting Officer and Registrar, both of Livingston.

Loch, Bergen county. Charles Ira, President; Chas. E. Wolf, Secretary, Registrar and Reporting Officer, both of Hackensack.

Logan, Gloucester county. Chas. M. Lamsen, President, Swedesboro; S. B. Platt, Clerk, Reporting Officer, Registrar, Bridgeport.

Long Beach, Ocean county. Geo. Ebert, Chairman; Chas. H. Eckman, Secretary; Dr. H. Willis, Reporting Officer and Registrar, Beach Haven.

Lopatcong, Warren county. William Hitchner, President; Stanley Drake, Secretary and Reporting Officer, both of Phillipsburg.

Lower, Cape May county. J. Durell Hoffman, Chairman; Aaron Woolson, Secretary and Reporting Officer, R. F. D. No. 1, Cape May.

Lower Alloways Creek, Salem county. Judah A. Plummer, President, Quinton; Edward Hancock, Secretary and Reporting Officer, Hancock Bridge.

Lower Penns Neck, Salem county. Chas. Humphreys, President; Chas. Caperson, Secretary and Registrar, Pennsville.

Lumberton, Burlington county. Howard D. Haines, President; Frank M. Cotton, Secretary, Lumberton.

Lyndhurst, Bergen county. Jas. W. Lehti, President; Arthur V. Turner, Secretary and Reporting Officer, both of Lyndhurst.

Madison, Middlesex county. William Ortel, President, Old Bridge; Ebenezer Bowne, Secretary and Reporting Officer, Matawan.

Manalapan, Monmouth county. Lewis Craig, Chairman; G. B. Conover, Clerk and Reporting Officer, both of Englishtown.

Manchester, Ocean county. Wm. H. Wilbur, President; Dr. Harold Pittis, Secretary, both of Lakewood.

Mannington, Salem county. Chas. F. Hackett, President, Sharptown; Walter B. Crispin, Clerk, Reporting Officer and Registrar, Woodstown.

Mansfield, Burlington county. H. Morris Stevenson, President; Jos. H. Armstrong, Clerk, Reporting Officer and Registrar; J. E. Dubell, M. D., Inspector, all of Columbus.

Mansfield, Warren county. William Frome, President; John C. Beaty, Clerk and Reporting Officer, both of Port Murray, N. Y.

Mantua, Gloucester county. Joseph I. Parks, President; Richard Kincaid, Secretary, Reporting Officer and Registrar; Dr. E. Z. Hillegass, Inspector, all of Mantua.

Marlboro, Monmouth county. J. D. Ely, President and Reporting Officer, Marlboro.

Matawan, Monmouth county. Lewis H. Stember, President; Stephen J. Sullivan, Secretary and Reporting Officer; C. A. Neudinger, Registrar; Dr. Nathan Ervin, Inspector, all of Matawan.

Maurice River, Cumberland county. Wm. Carlisle, Chairman, Hellserville; Henry Reeves, Jr., Clerk, Reporting Officer and Registrar; Chas. A. Covert, Inspector, both of Leesburg.

Medford, Burlington county. A. Engle Haines, President; William D. Cowperthwaite, Secretary and Reporting Officer, both of Medford.

Mendham, Morris county. Owen Winston, President, Gladstone; Geo. W. Savage, Secretary and Reporting Officer, Frootledge.

Middle, Cape May county. O. E. Lehman, Secretary and Reporting Officer, Cape May Court House.

Middletown, Monmouth county. Isaac Morris, President, Middletown; Howard W. Roberts, Secretary and Reporting Officer, New Monmouth; Dr. O. W. Budlong, Inspector, Belford.

Midland, Bergen county. Otto Weisgerber, Chairman, Ridgewood; Chas. A. Dunlap, Clerk, Registrar and Reporting Officer, Rochelle Park; Geo. Shaffer, Inspector, Hackensack.

Millburn, Essex county. Walter Hine, President, Short Hills; Milton R. Silance, Secretary, Millburn; Wellington Campbell, Reporting Officer, Short Hills.

Millstone, Monmouth county. Edward G. Fountain, President, Clarksburg; E. L. G. Ely, Secretary, Robbinsville, G. M. Davison, Health Officer, Imlaystown.

Monroe, Gloucester county. Elmer Champion, Chairman; James M. Sneed, Secretary and Reporting Officer, both of Williamstown.

Monroe, Middlesex county. John D. Butcher, President, Hightstown; Edward Johnson, Secretary and Reporting Officer, Jamesburg.

Montague, Sussex county. Arthur L. Cooper, Secretary and Reporting Officer; G. Otto Pobe, M. D., Health Officer, both of Port Jarvis, R. F. D. No. 1, N. Y.

Montgomery, Somerset county. P. S. Terhune, Chairman; W. Leroy Skillman, Secretary and Reporting Officer, both of R. F. D. No. 1, Skillman.

Montville, Morris county. William R. Turner, President; Fred Van Durne, Clerk, both of Towaco.

Moorestown, Burlington county. Herbert I. Jacoby, President; Dr. T. G. Stroud, Secretary and Inspector, both of Moorestown.

Morris, Morris county. Thomas T. Sands, President and Reporting Officer; Dr. James Douglas, Inspector, both of Morristown.

Mount Laurel, Burlington county. James Larney, President; W. Clifford Godfrey, Clerk and Reporting Officer, both of Moorestown.

Mount Olive, Morris county. David Abie, Chairman; Hex Smith, Secretary and Reporting Officer, both of Flanders; Dr. Frank Bird, Inspector, Stanhope.

Mullica, Atlantic county. A. J. McKeene, President, Hammonton; Henry Tappen, Secretary, Egg Harbor; Dr. Chas. Cunningham, Inspector, Hammonton.

Neptune, Monmouth county. Daniel H. Smith, President; John W. Knox, Secretary, Gilbert C. Leich, Reporting Officer and Inspector, all of Asbury Park.

New Hanover, Burlington county. J. H. Atkinson, President, Pointville; John S. Nash, Secretary, R. F. D. No. 1, Wrightstown.

New Providence, Union county. Percy C. Honeymar, President; Frank Jeckel, Secretary and Reporting Officer; Joseph Kuntz, Inspector, all of R. F. D. No. 2, Chatham.

Northampton, Burlington county. G. C. Cooperhewitt, President; John D. Mason, Secretary and Reporting Officer; Elmer D. Prickett, M. D., Health Officer, all of Mount Holly.

North Bergen, Hudson county. Harry Barber, chairman; Fred Sternkopf, Clerk; Wm. A. Plnder, Health Officer, all of North Bergen.

North Brunswick, Middlesex county. A. Yorston, President; H. P. Glassin, Secretary, Reporting Officer and Registrar; F. D. No. 4, New Brunswick.

North Hanover, Burlington county. A. C. Hutchinson, President, New Egypt; Harry Borden, Secretary and Reporting Officer, Jacobstown.

North Plainfield, Somerset county. H. B. MacDonald, Chairman; Francis E. Bodin, Secretary, both of Watchung, Joseph Teltow, Inspector, Dunellen.

Ocean, Monmouth county. George E. Van Note, Chairman; J. Ashley Woolley, Secretary and Reporting Officer, both of Oakhurst.

Ocean, Ocean county. H. S. Brown, President; W. E. Wilkins, Clerk and Reporting Officer, both of Waretown; Dr. F. M. Bunnell, Health Officer, Barnegat.

Oldmans, Salem county. Harvey Cavata, President; David G. Henderson, Secretary and Reporting Officer, both of Pedrickstown.

Oxford, Warren county. Dr. L. B. Hoagland, President; George Ducker, Jr., Clerk, Reporting Officer and Registrar, both of R. F. D. No. 2, Oxford.

Pahoaquary, Warren county. Irving B. Smith, Reporting Officer, Dunndell.

Palmyra, Burlington county. John M. Davis, President; John W. Shade, Clerk and Registrar; Frederick Blackburn, Reporting Officer, all of Palmyra.

Passaic, Morris county. Charles Castle, Chairman, Gillette; N. D. Goble, Secretary and Reporting Officer, Morristown, N. J., R. F. D. No. 2.

Pemberton, Burlington county. Thos. G. Shreve, President; Barclay Seeds, Secretary, Reporting Officer and Registrar; Dr. E. Hollingshead, Inspector, all of Pemberton.

Pensauken, Camden county. Russel I. Walton, Chairman; Robert V. Peabody, Secretary, Pensauken; Enis G. Simon, Reporting Officer and Health Officer, 208 North 43d Street, Camden.

Pesquaque, Morris county. George C. Pellet, President, Pompton Plains; Harry Conly, Secretary, Lincoln Park; W. M. Hutchinson, Health Officer, Pompton Plains.

Pilesgrove, Salem county. Warren C. Richman, President; N. W. Buzby, Clerk, Reporting Officer and Registrar, both of Woodstown.

Piscataway, Middlesex county. Walter Dunn, President; George W. Coriell, Secretary, Reporting Officer and Registrar, both of New Market, Cornelius J. McCarty, Health Officer, South Plainfield.

Pittsgrove, Salem county. Raymond Garrison, President; Arthur Schalk, Clerk and Reporting Officer, both of Centerton, Lewis B. Coney, Health Officer, Norma.

Plainsboro, Middlesex county. Nathaniel Britton, Chairman, R. F. D. Cranbury; Raymond D. Britton, Clerk, Plainsboro.

Plumstead, Ocean county. Geo. R. A. Brown, Chairman, Geo. Hartsborn, Secretary and Reporting Officer; Dr. M. A. Moren, Inspector, all of New Egypt.

Pohatcong, Warren county. Arthur J. Frey, Chairman, Carpenterville; Walter J. Jacoby, Clerk and Reporting Officer, Pineville.

Princeton, Mercer county. Wm. E. Dempsey, Chairman; J. H. Warren, Secretary; Fred W. Konietzka, Jr., Reporting Officer and Health Officer, all of Princeton.

Quinton, Salem county. Wm. R. Lawrence, President, Bridgeton; C. A. Miller, Secretary, Reporting Officer, Quinton; W. T. Cooper, M. D., Inspector, Alloway.

Randolph, Morris county. N. J. Dreery, President; Geo. R. Coslett, Secretary, Reporting Officer and Health Officer, R. F. D. No. 2, Dover.

Raritan, Hunterdon county. John Ewing, Chairman, Flemington; Theo. H. Dilts, Secretary, Reporting Officer and Registrar, Three Bridges.

Raritan, Middlesex county. Otto Wittenbert, President; Wm. T. Woerner, Clerk, both of Perth Amboy, R. F. D. No. 1.

Raritan, Monmouth county. Ira Carhart, President; Dr. William T. Walling, Clerk and Reporting Officer, Dr. J. E. D. Silcox, Inspector, all of Keyport.

Readington, Hunterdon county. D. J. Lore, President, White House Station; Geo. W. Anderson, Clerk and Reporting Officer, Stanton, Judson La Torre, Inspector, White House.

Riverside, Burlington county. William Mathias, President; Charles Heiss, Secretary and Reporting Officer; Dr. R. I. Dovsky, Inspector, all of Riverside.

Riverdale, Bergen county. Alfred Blakeur, President; Chas. A. Brunet, Clerk and Reporting Officer, R. F. D. No. 1, Westwood.

Rockaway, Morris county. Dr. F. W. Flogge, President; Rockaway; William Winters, Clerk, Reporting Officer and Registrar, Hibernia.

Roxbury, Morris county. Dr. Clarence A. Plume, President; Fred De Camp, Secretary, Reporting Officer and Registrar, both of Succasunna.

Saddle River, Bergen county. John Christie, Chairman; Isaac A. Hooper, Clerk, both of Fair Lawn.

Sandyton, Sussex county. John Abner, President; Dr. Martin Cole, Secretary; Wm. Clark, Reporting Officer, all of Hainesville.

Scotch Plains, Union county. Thos. J. Nichol, Chairman; George H. Johnston, Secretary and Reporting Officer, Scotch Plains; Dr. F. W. Wescott, Inspector, Fanwood.

Shamong, Burlington county. Mahlon Prickett, Clerk, Indian Mills,

Shrewsbury, Monmouth county. Alfred Grover, President and Reporting Officer, Shrewsbury; Geo. H. Lippincott, Secretary, Little Silver; Dr. Benj. F. King, Inspector, Shrewsbury.

Southampton, Burlington county. Elwood Haines, Clerk; Dr. J. C. Brown, Inspector, both of Vincentown.

South Brunswick, Middlesex county. William V. Evans, President; N. H. Vreeland, Secretary and Reporting Officer, both of Monmouth Junction.

South Harrison, Gloucester county. Matthew Allen, Chairman, R. F. D. Mullica Hill; D. C. Lippincott, Clerk, Harrisonville; Samuel S. Ashcroft, Inspector, R. F. D. Mullica Hill.

South Orange, Essex county. Edward R. Arcularius, Secretary, Dr. John C. Cox, Reporting Officer and Health Officer, Wm. L. Stadler, President, R. F. D. Lafayette; Floyd Kays, Secretary and Reporting Officer, Sparta.

Springfield, Burlington county. Thos. E. Hildgeway, Chairman, Julietstown; Aaron H. Harris, Secretary and Reporting Officer; Dr. Elmer D. Prickett, Health Officer, both of Mt. Holly.

Springfield, Union county. D. C. Farse, President; Lewis T. Terry, Secretary, Reporting Officer and Registrar; Dr. H. P. Dengler, Inspector, Springfield.

Stafford, Ocean county. C. H. Cramer, President; Geo. F. Pharo, Clerk, Reporting Officer and Registrar, both of Mahanawick.

Stillwater, Sussex county. E. T. Moore, Chairman; R. J. Van Etten, Secretary and Reporting Officer; Floyd Rosenkrans, Registrar; M. J. Saverice, Inspector, all of R. F. D. No. 2, Newton.

Stow Creek, Cumberland county. Raymond Hopkins, President, R. F. D. No. 3, Bridgeton; G. W. Labor, Clerk and Reporting Officer, Shiloh.

Tabernacle, Burlington county. Harvey S. Cotton, Secretary, R. F. D. No. 2, Vincentown.

Teaneck, Bergen county. Chas. Stanley, Chairman; Geo. F. W. Schulze, Secretary and Reporting Officer; Geo. F. Shafer, Inspector, all of Teaneck.

Tewksbury, Hunterdon county. J. B. Lindbaur, Chairman; Chas. P. Farley, R. F. D., Califon; F. A. Appar, M. D., Inspector, Oldwick.

Union, Hunterdon county. Wm. Best, Chairman; Morris Stockton, Clerk and Reporting Officer, Pattenberg.

Union, Ocean county. J. H. Parvin, Chairman; Stokes Collins, Secretary and Reporting Officer, both of Barnegat.

Union, Union county. George L. Bashford, President, R. F. D., Elizabeth; John Jacob Volden, Secretary and Reporting Officer; Walter Johnson, Health Officer, both of Vauhall.

Upper Cape May county. Jesse T. Young, Clerk, Easley Point; Washington Van Gilder, Reporting Officer, Petersburg.

Upper Deerfield, Cumberland county. W. W. Oley, Chairman, R. F. D. No. 3, Bridgeton; E. R. Parvin, Assessor, Deerfield.

Upper Freehold, Monmouth county. Joseph C. Johnston, President, Allentown; John Y. Linton, Secretary and Reporting Officer, Imhustown.

Upper Penns Neck, Salem county. Wm. F. Naylor, President, Carney's Point; G. F. McClosky, Clerk and Reporting Officer; R. F. Small, Health Officer, all of Carney's Point.

Upper Pittsgrove, Salem county. Walter Lawrence, President; R. A. Robinson, Clerk, both of Monroeville.

Verion, Sussex county. E. H. Van Winkle, President; N. P. Ryerson, Secretary and Reporting Officer, both of Glenwood.

Voorhees, Camden county. William T. Tomlinson, President, Laurel Springs; R. B. Stafford, Secretary and Reporting Officer, Marlton.

Wall, Monmouth county. E. S. V. Woolley, President; Geo. E. Rogers, Clerk, Reporting Officer and Registrar, Belmar.

Walpack, Sussex county. L. J. Fuller, Chairman, Joseph L. Robbins, Secretary, Walpack Center.

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