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SEVENTY-SECOND ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

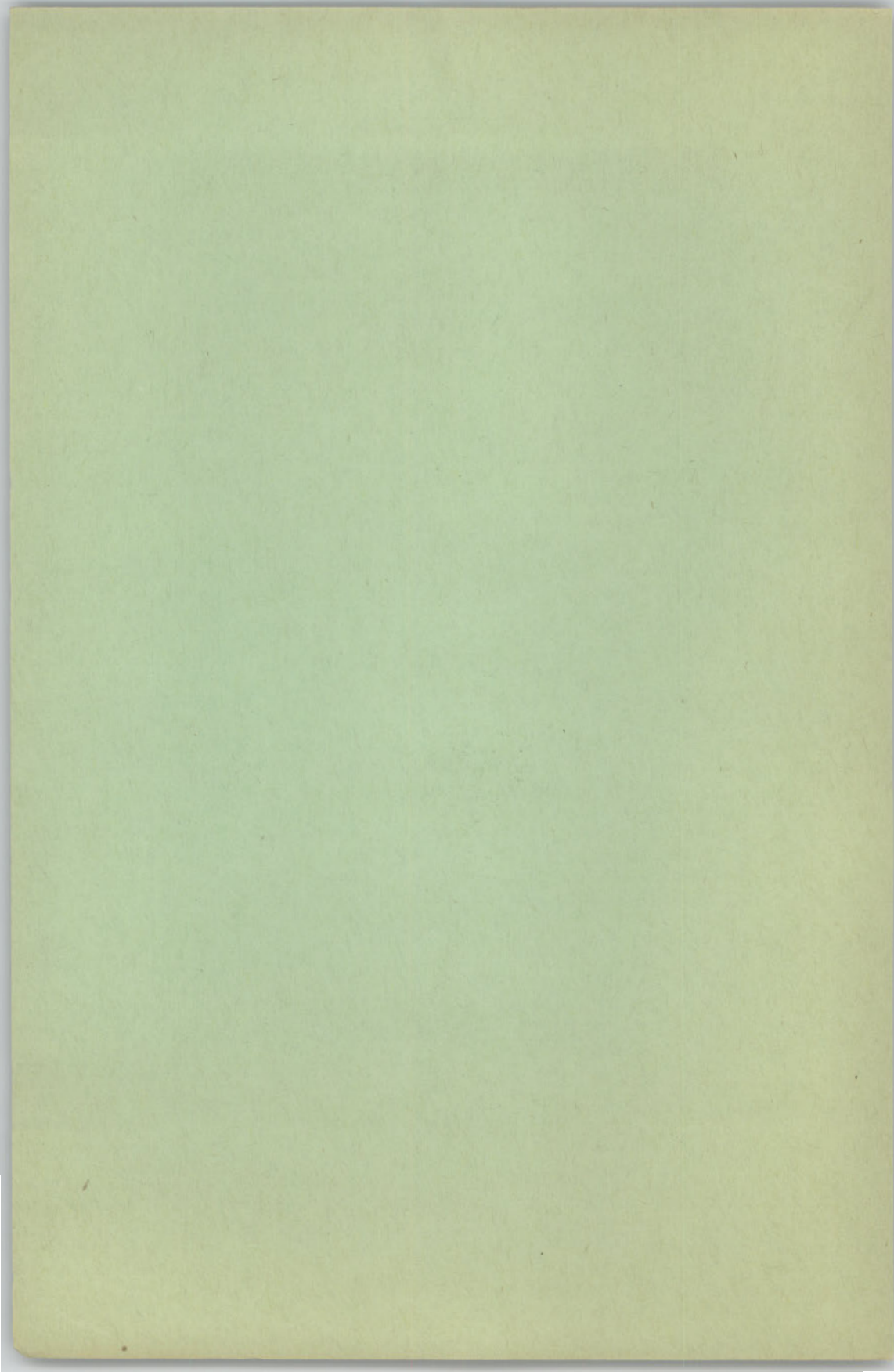
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DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY  
PUBLIC HEALTH COUNCIL

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

STATE OF NEW JERSEY,  
DEPARTMENT OF HEALTH,  
TRENTON, N. J., July 1, 1949.

*To His Excellency Governor Alfred E. Driscoll:*

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

*To the Public Health Council:*

GENTLEMEN—I have the honor of submitting herewith the Annual Report of the Department of Health for the fiscal year ending June 30, 1949.

Respectfully submitted,

DANIEL BERGSMAN, M. D., M. P. H.,  
*Commissioner of Health.*

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HEALTH OF THE STATE OF NEW JERSEY, 1949

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# Report of the State Commissioner of Health

July 1, 1948—June 30, 1949

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

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The energies and efforts of the State Department of Health and particularly the State Commissioner of Health have been directed during the last year toward two primary problems. The first of these, the reorganization of the structure and services of the State Department of Health, has proceeded with dispatch. The second and far greater problem, that of securing adequate and comprehensive coverage of local health services throughout New Jersey, remains today as the number one public health problem of the State.

The Department of Health was established as one of the principal departments of the State Government under the new Constitution and the first objective of the Commissioner of Health and the Public Health Council has been to establish a reorganized Department capable of providing the general and specialized public health services which are the responsibilities of the State.

Consolidation and integration of functionally related activities have been the guiding principles in the reorganization. In applying these principles, functionally related activities of the Department are being brought together in one of six bureaus under the control, administrative supervision and leadership of bureau directors eminently well qualified for the specific responsibilities. Not only has there been a realignment of functions, but there has been an actual transfer of personnel and facilities to permit the housing of individual bureaus under one roof as far as our present quarters permit.

## BUREAU OF VITAL STATISTICS AND ADMINISTRATION

Of the six bureaus in the reorganized Department of Health, the Bureau of Vital Statistics and Administration, which is the service or housekeeping bureau for the Department, was the first to be established. Under the leadership of Dr. Marguerite F. Hall, appointed as Bureau Director August 23, 1948, the organization and program of this bureau have been developed rapidly. Functions formerly performed by the Division of Personnel, Administration Records and Accounts, the Division of Health Education and

the Bureau of Vital Statistics, together with personnel and equipment, were brought together in one bureau. Accounting, personnel and warehousing functions of other units of the Department were transferred to the Bureau of Vital Statistics and Administration.

In the new bureau there have been established a Section on Administrative Services, a Section on Personnel and Accounts, the State Registrar, a Section on Public Health Statistics and a Section on Examination, Licensing and Registration. The Boards of Barber Examiners and of Beauty Culture Control, which were transferred to the State Department of Health under R. S. C. 26:1A-70 were placed in the latter section.

By bringing together the functionally related services in this field a more effective centralization of statistics and integration of records has been achieved. All certificates of vital events are now being coded and punched for mechanized statistical tabulation. The State Registrar received 200,000 vital certificates during the year. The microfilming program has moved forward rapidly and all 1949 certificates are being preserved on microfilm as well as all the earliest priceless records.

Monthly fiscal reports are supplied to the directors of each of the bureaus and a humanized personnel program is being developed.

Production of posters, exhibits, pamphlets and other health education materials was continued by the Section on Administrative Services. Visual aid equipment was placed in three State district health offices.

Distribution of biologicals, drugs and dried blood plasma was continued. The supply of dried blood plasma provided by the American Red Cross from surplus in excess of the needs of the Armed Forces was exhausted in February, 1949, and distribution was necessarily discontinued at that time.

#### BUREAU OF PREVENTABLE DISEASES

The Bureau of Preventable Diseases was the second of the six bureaus to be activated and Dr. Carl E. Weigele was appointed Director on November 1, 1948. The Bureau includes the Section on Dental Diseases, the Section on Cancer Control, the Section on Communicable Disease Control including the Tuberculosis Control Program and the Venereal Disease Control Program, and the Section on Rehabilitation which includes the Crippled Children Commission, the Heart Program and the Alcoholism Program.

Emphasis on continued professional education and initiation of a State-wide research study on possible causes of cancer were the primary activities of the Section on Cancer Control. Pathologic study materials, scientific exhibits, a tissue consultation service, a photographic service of gross specimen and photomicrographs and provisions of a cancer fellowship were the features of the professional education program.

Reorganization of the Department and transfer of related functions to the Tuberculosis Control Program have made it possible to set up a centralized tuberculosis planning and control program. Plans have been made and are now being put into effect which will result in a more effective use of our personnel and facilities. New report forms have been prepared which will give more reliable and complete statistical data. A new chest clinic in Cape May Court House brought the number of such clinics to eleven and the personnel was increased by the transfer of two clinicians from the State Department of Institutions and Agencies.

The program of case finding in industry, community groups and other special groups was continued with 532 surveys completed in which 186,722 persons were X-rayed. Of these, 6,595 were referred for follow-up of which 5,784 were pulmonary referrals and 470 were referred for cardiovascular findings. Efforts have been continued to promote routine use of chest X-rays for persons admitted to the general hospitals of the State. Such a program, especially if located in known high prevalence areas would yield significant results in the discovery of unknown cases of tuberculosis.

Penicillin during the past year has proven more than ever before to be the core of venereal disease control. Penicillin in oil and beeswax was supplied to all physicians requesting it for treatment of all classifications of syphilis and the new improved procaine product has been made available since June, 1949. While the Department has continued to provide free hospitalization and penicillin for all classes of syphilis, the ambulatory treatment of syphilis with penicillin is increasing. Penicillin in oil and beeswax has also been supplied for gonorrhoea. As would be expected, the demand for the older anti-luetic drugs previously distributed has decreased. Streptomycin is being supplied for treatment of granuloma inguinale. Clinics and blood testing programs for special groups including migrant agricultural workers were conducted during the year.

Many communities requested consultation and financial assistance in setting up new dental health programs or for expanding existing programs. The increase in these requests is a measure of the success of the State dental health program during the previous years. While no additional grants were made in these programs, professional consultation was made available in all cases.

Application of sodium fluoride to children reached through State-supervised dental health programs was continued at an increased rate. During the year 4,510 children received the recommended series of four treatments. This should be considered as a demonstration, since the total number of children reached is actually a very small percentage of the child population of New Jersey. There were 170 State-supervised community dental health

programs throughout 18 counties of New Jersey providing dental health services for 8,782 children.

The State Crippled Children Commission continued its work of providing the needed care, rehabilitation and training of New Jersey's crippled children. Its activities in the field of rheumatic fever and cerebral palsy are investments in human life. The pediatric and other nursing services, the medical social services and the work of the psychology division have contributed greatly to the improvement of the status of our crippled children.

Reportable diseases for 1948 showed a considerable increase over 1947 because of the high prevalence of measles and mumps. There were four deaths from diphtheria and six deaths from whooping cough, the lowest figures ever recorded for these diseases in New Jersey. There were forty-nine cases of undulant fever reported during the year and raw milk continued to serve as a factor in the transmission of this disease.

In the field of the preventable diseases a new program for the detection of early and unknown cases of diabetes was instituted. In a co-operative program working with the State and County Medical Societies, the New Jersey Health Officers' Association and the United States Public Health Services, mass blood screening was made available at the Asbury Park Calvacade of Progress and is planned for the New Jersey State Fair. In addition to this a number of community projects organized for the mass screening of urine samples have been projected.

#### BUREAU OF LABORATORIES

The Bureau of Laboratories was the third of the six bureaus to be organized and Dr. Arthur J. Casselman was appointed Director of this Bureau on January 1, 1949. The laboratory services of the Department formerly performed as functions of the Bureaus of Chemistry and Bacteriology, together with the laboratory services of four other units of the Department, are now performed by the Bureau of Laboratories. Sections on Bacteriology, Chemistry, and Pathology have been organized within the Bureau of Laboratories.

Demands for public health laboratory services continued to increase and there were significant increases in the amount of routine laboratory services as well as in some of the newer services added within recent months. Rh factor determinations were nearly doubled despite the fact that they are limited to prenatal specimens and done only on request. A field inspection and sampling service was instituted following adoption of bacteriological standards for milk, cream and milk products with a resulting increase in the number of samples submitted to the laboratory for bacteriological examination. The laboratory examination and testing of foods as part of the sanitary

policing of the food industry continued. This is an essential part in the protection of the public against insanitary, poisonous and adulterated foods.

The work of the Section on Pathology has been concentrated on the development of a plan for consultant work with pathologist, the maintenance of a tumor registry, photomicrography, photography of cancer patients and preparation of exhibits on the diagnosis of cancer.

#### BUREAU OF CONSTRUCTIVE HEALTH

The Bureau of Constructive Health was actively organized on June 1, 1949 with the appointment of Dr. Geoffrey W. Esty as Director. Related activities dealing primarily with the positive aspects of health have been grouped in this bureau which now includes the Maternal and Child Health Section, the Adult and Industrial Health Section, the Public Health Nursing Section, established March 1, 1949 and the program of the Nutritionist. The activities of the Bureau emphasize the constructive aspects of infant, child, maternal and adult health with nutrition and mental health integrated throughout.

The initial activities which came at the close of the fiscal year were largely co-ordinative and administrative. Support and functional integration of existing activities in this field have been provided, new needs are being identified and efforts are being made in new directions towards the ultimate objective of a greater degree of positive health for all.

The Nutritionist has provided a consultative service with special attention to groups with specific nutritional problems such as expectant mothers, low-income families, rheumatic fever and cerebral palsy clinic patients and children.

The Section on Adult and Industrial Health found an increased demand for consultative services with fewer requests of industries for direct services. This is an indication of the success of the demonstration programs of preceding years. One community-wide industrial survey was initiated during the year and investigations of special hazards were made in beryllium poisoning, industrial anthrax, lead poisoning and air pollution. Mobile equipment for continuous on-the-spot direct sampling for use in atmospheric pollution studies has been ordered.

New Jersey continued as one of the leading States with its new low infant mortality and maternal mortality rates. Two-thirds of all deaths under one year of age occurred during the first week of life. Since most births occur in hospitals, a reduction in the mortality from prematurity, which is the principal cause of these deaths, will have to come primarily from two sources:

1. More effective pre-natal care.
2. Better care of the newborn in hospitals.

There were 175 Baby-Keep-Well Stations conducted under the supervision of the Section on Maternal and Child Health. Special emphasis has been given in the anticipatory guidance program to the education of mothers through the training of public health nurses and physicians in this phase of parent-child relationships.

The major program which confronted the Public Health Nursing Section was the integration and co-ordination of the nursing consultative services of the Department. Policies and procedures have been developed for a study program for nurses already employed by the Department and the requirement of one year's basic training in public health nursing for nurses employed full time as public health nurses in the State Department of Health has been established.

#### BUREAU OF ENVIRONMENTAL SANITATION

Organization of the Bureau of Environmental Sanitation was well under way at the close of the fiscal year with the Bureau Director, Mr. Alfred H. Fletcher scheduled to report for duty on July 16, 1949. The Bureau includes the Section on Public Health Engineering, Section on Food and Drugs and the Section on Veterinary Public Health.

During the course of the year a Senior Public Health Veterinarian was appointed to provide closer co-ordination in public health problems involving veterinary medicine with the engineering and other phases of environmental sanitation. The Department was charged by legislative act with the administration of a program of aerial spraying of D.D.T. for the control of mosquitoes in four seashore counties of the State.

To provide integration of the spraying program with other mosquito control activities in the State, an Advisory Committee on Mosquito Control was appointed consisting of one representative from each of the four Atlantic Coast County Mosquito Extermination Commissions, a representative from the N. J. Agricultural Experiment Station, the State Department of Conservation and Economic Development, the Monmouth County Health Officers Association and the State Department of Health. Three consultants were also appointed to assist the Advisory Committee on Mosquito Control. They were from the N. J. State Department of Defense, the U. S. Public Health Service and the U. S. Department of Interior.

New rules and regulations governing the submission of certain engineering data and the licensing of superintendents and operators of public water and sewage treatment plants and public water supply systems were established during the year. There was continued interest in the sanitary work of the Department in controlling pollution of bathing areas in our coastal waters. The 1949 surveys showed that beaches in the Raritan and Sandy Hook Bay

areas are subject to intermittent pollution, the major portion of which is contributed by municipalities and industries in the New Jersey-New York metropolitan area, and the minor portion being induced by unsatisfactory operation of certain sewage treatment plants at adjacent resorts discharging to said waters.

With respect to the bacteriological results obtained from the examination of samples collected at beaches along the entire New Jersey coastline from Sea Bright to Cape May Point, it is concluded that the bacterial quality of all bathing waters in this area were satisfactory with the exception of one beach in Asbury Park which was being adversely influenced by the discharge from a small lake. The control program consists of routine surveying of sewage treatment plant facilities and collection of samples of the bathing waters. Improvement in the quality of these waters as compared with preceding years is attributed to the diligence of municipal officials in controlling the operation of sewage treatment plants.

New regulations requiring that all cows producing milk for consumption as raw milk show a negative brucella blood test and setting bacterial standards for milk, cream and milk products were adopted by resolution. Enforcement of these regulations is a function of the Section on Food and Drugs. Screening of dairies by direct examination of Breed smears of milk at the time of its arrival at the milk plant is providing a more selective type of dairy farm inspections. By this method most of the time of the inspectors can be devoted to the farms indicated as having insanitary conditions by the Breed smear examination.

Sanitary control of the New Jersey shellfish industry was continued and it was found possible to permit the taking of shellfish in certain previously condemned areas. The shellfish laboratory boat "Inspector" which in former years had provided a limited amount of laboratory services and living accommodations for inspectors and crew has been prepared for sale. Sampling work has been continued as previously, the laboratory work being done in three existing field laboratories of the Department.

Increase in the number of cases of rabies in animals during 1948 demonstrates the need for both dog management and dog vaccination as important parts of a rabies control program. Vaccination of dogs by a single dose of anti-rabies vaccine brought outbreaks in three counties of the State under control. The Committee on the Diseases of Animals Transmissible to Man continued to concern itself with the problem of rabies control in addition to the other problems which it has been considering.

Generalization rather than specialization of personnel in the field of environmental sanitation has been established as departmental practice, anticipating the reorganization of State Health Districts and decentralizing of sanitation personnel to such offices. To this end, a six-week in-service training

course for sanitary inspectors employed by the Department has been conducted to assist in preparing these men for generalized sanitation work. This in-service training program is to be concluded with a supervised period of field experience for all inspectors in the sanitation areas in which they lack experience.

#### BUREAU OF LOCAL HEALTH SERVICES

The organization and program of the Bureau of Local Health Services is still in the process of development. Transfer of functions previously performed by this Bureau to other bureaus of the reorganized Department has been virtually completed. The work of the Bureau of Local Health Services which has been under the direction of Mr. William H. MacDonald, Assistant Director, will be carried out through three sections: Section on Grants-in-Aid, Section on Evaluation and Surveys and Section on State Health Districts.

Reports from local Boards of Health for the calendar year of 1948 show that these boards expended \$4,190,327.66 or \$.89 per capita for local health services. The per capita expenditure ranged from \$2.00 in Essex County to about eleven cents in Warren County. Essex was the only county for which the figure exceeded \$1.00 per capita; there were nine counties in which the per capita figure ranged from \$.50 to \$1.00 and eleven counties in which it was less than \$.50.

These reports showed that in 1948 there were 54 full-time licensed health officers serving 78 municipalities and 62 part-time licensed health officers serving 83 municipalities.

The people of New Jersey have a growing and active interest in the organization and provision of public health services in the State. These interested people through various organizations have worked closely with each other and with the organized health agencies of the State toward the improvement of public health. One of the most promising developments of late years in this field has been the increasing number and the activities of community health councils or of groups performing the functions of community health councils, whatever their names may be. The services of a consultant in community health organization on the staff of the State Commissioner of Health have been made available to these community groups to the end that they may become more effective in their various efforts. This growing ground swell of interest and directed enthusiasm is making itself felt in various ways and will continue to serve as one of the moving forces for better public health.

A workshop for elementary grade teachers "Working Together for Health" was sponsored jointly by the State Department of Education, State Teachers College at Trenton, the New Jersey Tuberculosis League and the State Department of Health. This workshop was an outstanding example of what can be achieved through co-operative efforts not only of State government

agencies, but also of voluntary agencies, and was hailed as one of the best workshops ever conducted in New Jersey.

#### STATE DISTRICT HEALTH OFFICES

The Department has maintained district health offices throughout New Jersey for a number of years. These offices have varied in the number and type of personnel and there have been differences in their work programs. Their primary function has been to provide an advisory and emergency service to local Boards of Health particularly in the rural counties. The highly urban counties of Union, Hudson and Essex have not been served by district health offices.

The next step in the reorganization plan of the State Department of Health will be the reorganization of the State district health offices in the Section on State Health Districts of the Bureau of Local Health Services.

#### LEGISLATION FOR LARGER LOCAL HEALTH UNITS

With the reorganization of the State Department of Health into six bureaus and the projection of the plan for reorganization of State district health offices, the initial problem which faced my administration as State Commissioner of Health, that of reorganizing the State Department of Health, is approaching a virtual conclusion in its immediate aspects. The long range problem of insuring that the people of New Jersey will be able to provide themselves with better local public health services remains with us. Modern effective local public health services for the people in their own communities, provided through co-operative effort on the part of their own local municipal and township governments is a vital present need throughout most of our State. It is not the responsibility of the State Department of Health to provide local health services and the Department has no desire to usurp even a portion of this local responsibility and authority.

The Legislature clearly placed the authority and responsibility for local health services in the first local health act of 1880 upon the municipal governments so that the work of the State Department of Health in this area is not to render local health services, but to see that it is possible for municipal governments to meet their obligations in this field.

This major public health problem of local health services for all of our people is one which we share with other States. We have long prided ourselves in New Jersey on our system of strong local government and local responsibility for governmental services, but at the same time most of our municipalities and townships have too small a population to support the staff and provide the facilities necessary for the operation of full-time local health services. Various means of accomplishing this have been considered during

## MORNING SESSION

- Presiding: William H. MacDonald, Chief, Bureau of Local Health Services
- 10:00 A. M. *The New Look in Vital Statistics*  
Walter R. Scott, State Registrar of Vital Statistics
- 11:00 A. M. *Preventive Work of a Community Mental Health Clinic*  
Dr. Joseph J. Geller, Director, Mental Health Center, Paterson

## AFTERNOON SESSION

- Presiding: Daniel Bergsma, M. D., M. P. H., State Commissioner of Health
- 2:00 P. M. *Public Health in New Jersey*  
Progress achieved and progress to come.  
Daniel Bergsma, M. D., M. P. H., State Commissioner of Health
- 3:00 P. M. *School Health Councils and Rural Health Program*  
The work of the Woman's Auxiliary to the Medical Society of New Jersey.  
Mrs. Asher Yaguda, Chairman, Public Relations Committee
- 4:00 P. M. *New Directions in Public Health*  
Dr. Leonard Goldwater, Professor of Industrial Hygiene, Columbia University School of Public Health

## LEGISLATION PROPOSED IN 1949

The following legislation of interest to health officials was enacted by the Legislature during the year 1949:

S-75, Chap. 29 (Van Alstyne). Makes compensable all occupational diseases contracted as result of exposure hazards in employment but only when exposure stated has occurred during employment; expunges from present act enumeration of specific occupational diseases which are compensable.

S-158, Chap. 105 (Littell). Authorizes Interstate Commission on Delaware River Basin, upon passage of similar legislation by New York State and Pennsylvania, to survey feasibility of constructing an integrated water supply project within the basin above Trenton; appropriates \$35,000 as New Jersey's share of cost this year; total cost of survey not to exceed \$200,000; report to be made by 1951.

S-180, Chap. 62 (Summerill). Permits nonresidents to be municipal health officers.

S-192, Chap. 65 (Clapp). Permits State Board of Nursing, created by Chapter 262, Laws of 1947, to waive examinations to license practical nurses having certain qualifications, if application for such license is made before June 11, 1950, provided also that prospective licensee is endorsed under oath by two physicians empowered to practice medicine and surgery in this State; prohibits, after January 1, 1950, representation, without board approval, that person conducts school for practical nurses.

SJR-2, Chap. JR. 2 (Armstrong). Designates April as "Cancer Control Month."

SJR-6, Chap. JR. 4 (Bodine). Creates temporary committee of 12 to investigate prevention, care, treatment and rehabilitation of the chronically ill.

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A-1, Chap. 3 (Brescher). Authorizes \$25,000,000 bond issue for new construction and improvement of existing facilities in State hospital, training, correctional and penal institutions; provides interest and principal payments be from alcoholic beverage tax receipts; provides referendum on such bond issue.

A-59, Chap. 89 (Fraser and Smith). To provide State aid for mosquito extermination and control and making an appropriation therefor.

A-82, Chap. 7 (Brescher). Permits magistrates of municipal courts to solemnize marriages.

A-101, Chap. 217 (Brescher). Fixes qualifications for members of State Board of Beauty Culture Control.

A-176, Chap. 191 (Dixon). Amends Chapter 428, Laws of 1933, to permit counties municipalities and school districts to borrow funds from United States through Federal Works Administration for sewerage facilities for abatement or control of water pollution; deletes from act proviso that act is intended to relieve unemployment

A-259, Chap. 51 (Salsburg). Increases from \$10 to \$20, fee for first examination to practice dental hygiene, and from \$5 to \$10, fee for every re-examination.

A-260, Chap. 52 (Salsburg). Regulates membership and terms of office on State Board of Regulation and Examination in Dentistry; increases fee from \$25 to \$50 for first examination; increases from \$10 to \$20 fee for subsequent examination.

A-288, Chap. 160 (Dilger). Permits joint municipal water supply commissions to sell water to private water companies.

A-349, Chap. 141 (Cozzoline). Permits State Board of Child Welfare to initiate proceedings for support of illegitimate children likely to become public charges; changes nomenclature of act to conform to new court system established by 1947 Constitution.

A-350, Chap. 187 (Pike). Permits municipalities to determine "blighted areas"; defines such areas and permits municipalities to acquire them and develop them under Article VIII, Section III, Paragraph 1, 1947 Constitution.

A-358, Chap. 93 (Russell). Forbids persons other than pharmacists, or their assistants under pharmacist direction, or physicians or other persons licensed to prescribe drugs, to dispense any drug which, by law, requires a label bearing the statement that the drug is dispensed only on prescription, and forbidding dispensing except on valid prescription.

A-364, Chap. 231 (Greenbaum). Provides patients transferred from State correctional institutions to other State institutions shall not be paroled or discharged prior to expiration of maximum detention period; permits inmates of such institutions, other than correctional institutions, to be boarded on parole with private families.

A-374, Chap. 94 (Russell). Permits all local Boards of Health to make regulations covering sanitation, plumbing, ventilation and building drainage.

A-482, Chap. 249 (Fowler). Defines "dealer", "producer", "producer-creditor" and "milk" under act licensing and bonding milk and cream dealers; fixes \$10 license fee for persons buying milk for shipment, sale, resale or manufacture; fixes amount of bond for licensees and provides that proceeds from surety bonds be distributed to producer-creditors by State Secretary of Agriculture.

A-510, Chap. 210 (Russell). Fixes fees for entrants to examination of health officers and inspectors.

A-511, Chap. 196 (Russell). Permits quarantining of persons afflicted with pulmonary tuberculosis in communicable form.

A-522, Chap. 227 (Russell). Extends to January 22, 1951, Chapter 53, Laws of 1948, permitting all municipalities not having municipal hospitals to determine amounts of appropriations needed to be made for private charitable hospitals, both for treatment of indigent patients and for general support of private hospitals.

The following bills were introduced in the Legislature, and were not enacted into law :

S-86 (Summerill). Permits pensioning of chief executive officers of city health boards at age 67, after 25 years' service. (Vetoed.)

S-93 (Van Alstyne). Repeals Chapter 294, Laws of 1945, prohibiting delivery of milk or cream within certain hours.

S-94 (Farley). Regards those persons as practicing medicine who examine, test or analyze fluid, excretions, secretions or tissues of human body or any organism contained therein, where such analyses are used in connection with diagnosis or treatment of human diseases, injury or physical condition.

S-126 (Farley). Places in classified Civil Service employees of municipal Departments of Health.

S-135 (Hannold). Permits municipalities to revise and codify ordinances without publishing such revisions or without setting forth the same at length in any ordinances where such revisions are adopted provided that copy of revision is filed in municipal clerk's office.

S-189 (Bodine). Permits municipalities to create regional health districts with approval of State Health Commissioner; provides method of administering the same through regional boards of health.

S-236 (Young). Permits municipalities or public water agencies controlling water systems to establish constabularies to protect such systems. (Vetoed.)

A-94 (Widnall, Simmill and Thomas). Provides that Saturdays throughout the year be holidays in State, county and municipal offices.

A-110 (Fraser). Provides State Board of Barber Examiners devote full time to duties; provides traveling expenses to include "accommodations"; permits continuation of partnerships, after withdrawal of partner, without payment of additional license; permits continuation of business of deceased licensee by other licensee for benefit of widow. (Vetoed.)

A-122 (Bator). Fixes licensee fee of one cent per hundredweight of milk sold in New Jersey during year by milk producers; reduces license fee of milk dealers, processors and sub-dealers; requires milk producers to deposit \$100 cash with Milk Control Director; said deposit to be applied against license fee.

A-130 (Russell). Excludes milk and cream from law providing for grading of general farm products.

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A-131 (Russell). Requires microscopic examinations of milk delivered by producers, at least once in each month, to assure cleanliness and wholesomeness of product.

A-138 (Herrmann). Includes all occupational diseases as compensable under Workmen's Compensation Act when exposure thereto has occurred during employment.

A-161 (Shershin). Provides that Secretary-Director of State Board of Professional Engineers and Land Surveyors may or may not be a member of board; increases term from three to five years; increases annual salary from \$2,500 to \$3,000; provides members receive no salary except Secretary-Director if same is member of board. (Vetoed.)

A-177 (Dixon). Requires receivers, handlers, distributors and sellers of milk and cream in New Jersey to receive annual Milk Plant or Milk Dealer Permit from Department of Agriculture; requires State Health Department permit to be issued to such persons under Public Health Law before Agriculture Department permit may issue; requires periodic inspection of plants; provides procedure for obtaining milk during shortages.

A-195 (Musto). Permits physicians, surgeons, dentists and nurses to withhold information from courts obtained in professional capacity, unless for identification purposes in case of dentists or where patient is crime victim or subject.

A-207 (Hermann). Extends Temporary Disability Benefits Law (cash sickness) to workers treated by chiropradists.

A-218 (Shershin). Requires owners of premises housing more than two families and furnishing heat, to furnish such heat to at least 68 degree Fahrenheit from October 1 to May 1 and at other times when outside temperature is 50 degrees or less for 24 hours.

A-247 (Russell). Repeals Chapter 274, Laws of 1941, creating State Milk Control Board and regulating prices of milk; repeals also sections 4 to 18 of Chapter 447, Laws of 1948.

A-254 (Cavinato). Permits members of State Employees' Retirement System to be pensioned at age 55 after 30 years' service, under certain circumstances.

A-256 (Cavinato). Grants members of State Employees' Retirement System pension right in employers' contributions after 15 years' service.

A-273 (Brown). Designates beauty culture as profession; increases Board of Beauty Culture Control from six to eight members; prescribes members' qualifications; divides State into districts for purpose of choosing board members; defines "beauty shop"; requires candidates for license to have completed four years of high schools; fixes qualifications of teachers and others, and regulates schools; creates examining board of five to conduct tests and fixes compensation; empowers board to name chief inspector.

A-291 (Zangara). Permits riparian owners, claiming infringement of rights because of potable water diversion by public agencies, to procure injunction only to protect preferential and paramount right; and to prevent divertor from asserting adverse use, which might grow into prescriptive right.

A-293 (Smith). Requires registration of insecticides and allied products before distribution in this State; prescribes standards of purity, labeling and information to be given State Chemistry upon registration; fixes registration fees.

A-297 (Brescher). Increases annual salary of secretary-treasurer of Board of Barber Examiners from \$3,500 to \$4,000; increases annual salary of other board members from \$3,300 to \$3,800.

A-343 (Mills). Permits townships to fix compensation of township board of health members for attendance at board meetings. (Vetoed.)

A-345 (Bator). Requires sale of ice cream, and other frozen products, by weight when sold in bulk.

A-348 (Greenbaum). Requires Commissioner of Institutions and Agencies, after consultation with chief executive officer of institution, to certify as to sufficiency of accommodations for admission of inmates to Vineland State School for feebleminded women.

A-371 (Russell). Empowers local Boards of Health to compel owners to furnish adequate heat in dwellings and business houses.

A-389 (Fowler). Directs State Milk Director to fix prices for milk; directs him to establish formula for such price fixing; directs him to take into account all competitive economic factors within and without State concerning milk supplies.

A-440 (Zangara). Requires State Health Department to prepare standard plumbing code.

A-447 (Shershin). Creates State Board of Examiners in Medical Technology, to examine and register medical technologists; appointment to be by Governor.

A-448 (Shershin). Provides that local health examinations of persons handling food for human consumption meet standards to be established by State Health Department.

A-449 (Shershin). Provides for Cancer Center under Department of Institutions and Agencies; creates post of director of such center.

A-484 (Russell). Repeals Articles 2 and 3 of Chapter 5, Title 4, Revised Statutes, relating to medical and hospital care for poor persons. (Vetoed.)

A-485 (Russell). Creates commission on hospital rates, to fix rates for general hospital care of poor persons; provides procedure for obtaining care and payment therefor. (Vetoed.)

A-512 (Russell). Extends tenure to public health nurses and public health laboratory workers; grants maximum salary of grade within five years.

A-515 (Fowler). Makes mandatory the permissive provisions of Chapter 274, P. L. 1941, relative to fixing the price of milk; requires "director" to establish formula for fixing price based on competitive economic factors within and without the State concerning an adequate milk supply.

ACR-7 (Greenbaum). Memorializes Congress to repeal tax on colored oleo-margarine.

## Report of the Bureau of Constructive Health

July 1, 1948—June 30, 1949

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By GEOFFREY W. ESTY, M. D., F. A. A. P., *Director*

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Section on Adult and Industrial Health.....MARIE A. SENA, M. D., M. P. H.  
*Acting Chief*

Section on Maternal and Child Health.....JULIUS LEVY, M. D.  
*Chief*

Nutrition Program .....MARGARET P. ZEALAND  
*Nutritionist*

Section on Public Health Nursing.....GLADYS JACOBY WILSON, R. N., M. P. H.  
*Acting Chief*



## Bureau of Constructive Health

With the establishment of the Bureau of Constructive Health, related activities dealing primarily with enhancing the positive aspects of health have been grouped together under one administrative unit. This unit now includes the Maternal and Child Health Section, the Adult and Industrial Health Section, the newly formed Public Health Nursing Section, and the program of the Nutritionist. The Bureau's activities emphasize the constructive aspects of infant, child, maternal and adult health with nutrition and mental health integrated throughout.

Programs for positive health promotion should begin before birth and continue throughout life. Such health promotion must eventually include the improvement of the emotional and mental health of *all* ages if we are to reduce the incidence of mental disturbances and illness. An attempt must also be made toward lessening the infirmities of old age and reducing the incidence of chronic disease through the educational and constructive efforts of physicians and public health nurses.

With the appointment of a Bureau Director on June 1, 1949, the initial activities of the Director's office has been largely co-ordinative and administrative. Necessary support and functional integration of existing programs has been provided. New needs are being identified and efforts in new directions made. The ultimate objective of a greater degree of positive health for all is emerging.

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### Section on Adult and Industrial Health

Changes in organization and personnel have marked the past year. On December 29, 1948, the former Division of Adult and Industrial Health was designated by the Commissioner a part of the Bureau of Constructive Health, and is now known as the Section on Adult and Industrial Health.

On June 16, 1949, Doctor Marie A. Sena, medical assistant, was appointed acting chief of the Section on Adult and Industrial Health.

In April 1949, Louis F. Weller and Anthony J. Lucci, toxicologists, were transferred to the Bureau of Laboratories.

During the fiscal year, the Section on Adult and Industrial Health has also witnessed changes in the types of service now required, more consultative and less direct service. Demonstration projects, as experienced in the past, have evidently served well in emphasizing the need for both medical and engineer-

ing control methods. Newer techniques and methods—on a demonstration basis—must be ever available in meeting and coping with the constant changing industrial activities and problems.

In reviewing the statistical data, it must be kept in mind that these figures—*per se*—reveal mainly the quantity of activities and only in a very small measure do they portray the quality of service. The following statistics are obtained from the monthly activities reports submitted by each member of the staff. These same figures are submitted to the U. S. Public Health Service, and are included in the national report of Industrial Hygiene Activities.

#### STATISTICAL SUMMARY OF INDUSTRIAL HYGIENE ACTIVITIES

##### *Plant Activities*

Total number of different plants serviced .....	460
Total number of workers in plants .....	426,023
Total number of plant visits made .....	695

There are several reasons for the lesser number of plants serviced, plant population and plant visits as compared to preceding years. These include:

The previous years' community-wide surveys were conducted in larger and more heavily industrialized areas, consequently, more plants were serviced. Along with this factor, a major problem—a time consuming one—has been that of atmospheric pollution, requiring many conferences and studies outside of plant environs. However, as demonstrated by our consultants of the U. S. Public Health Service—a planned program in one area of the State is indicated. At no time during this fiscal year has there been a full complement of professional workers.

The total plant population may be affected by curtailment of production and layoffs. The improvement in the procedure of reporting joint plant visits may also have some bearing on the final total.

##### *Source of Service*

Self-initiated .....	126
Request from management—labor—nurses—physicians, etc. ....	372
Official reports of occupational diseases .....	42
	540

The self-initiated visits have increased. Practically all of these were made by medical and nursing personnel. More plants have thus been made aware of the type of services and activities conducted by this Section as compared to previous years. Of the total number of 42 occupational diseases investigated,

approximately 31% were reported or discovered during the course of surveying.

<i>General Types of Services Given</i>	<i>No. of Plants in Which Service Was Given</i>	<i>No. of Times Service Was Given</i>
Introductory or promotional visits .....	126	135
Surveys of working environment .....	206	247
Technical studies of potential health hazards .....	146	191
Appraisals of plant medical department .....	113	114
Assistance with o.d. diagnosis (in plant) .....	26	41
Consultation regarding :		
Problems of the working environment .....	68	85
Medical programs .....	134	136
Nursing services specifically .....	111	114
Dental services specifically .....	21	21
Other services specifically .....	56	64
Nuisance complaints investigated .....	79	114
Follow-up on compliance with recommendations .....	40	46

Services rendered by the Section may be classified in two general categories:

- a. In-plant, which includes medical-nursing, engineering; hygienic and toxicological evaluations;
- b. Outside the plant, which includes the same type of personnel as in-plant service requires.

In addition, due to the magnitude and multiplicity of influencing factors, other allied personnel services have been required.

<i>Improvements Recommended Regarding:</i>	<i>No. of Improvements</i>	<i>No. of Plants</i>	<i>No. of Workers Affected</i>
Working environment .....	160	101	33,753
Health and welfare services .....	200	122	89,455
<i>Improvements Carried Out:</i>			
Working environment .....	43	20	4,857
Health and welfare services .....	10	5	20,140
Approximate cost of improvements .....			\$170,020

Approximately 21% of the total different plants visited, have on follow-up investigation, revealed a total expenditure for industries of approximately \$170,020. These monies have been spent in establishing or improving the working environment and making available plant health facilities and services, as recommended by this Section. In addition, it is noteworthy that 24,997 workers were affected by these improvements. These figures are only an indication as to the acceptance of recommendations. Many recommendations are

more difficult to measure on a tangible dollar and cent basis, particularly within a short period of time. It must be borne in mind that these improvements might have been made as a result of visits made in previous years.

## SPECIFIC SERVICES

Samples collected for laboratory analysis or examination .....	208	
Number of laboratory analyses and examinations .....	411	} 1350
Field determinations of atmospheric contaminants .....	465	
Field determinations of physical conditions .....	474	
Medical examinations of workers .....	63	
Examination of plans for control equipment .....	7	
Occupational diseases reported (officially) .....	10	
Occupational diseases investigated or found on investigation .....	32	
Chest X-rays taken (or read) .....	9	

The number of samples submitted to or collected by the laboratory staff was 208. In the previous year, the number collected was 267. The combined total of all field determinations and laboratory analyses was 1,350, slightly more than the total for the previous year when it was 1,308. Field determinations are made for the most part by the engineering staff using field equipment. Laboratory analyses are performed except for certain types of tests by chemical methods in the laboratory on the samples which are submitted.

With the acquisition of new equipment, it is possible for many tests formerly analyzed in the laboratory to be now done on the spot in the field. The laboratory staff visited 36 plants or industrial areas for the purpose of collecting samples and for consultation.

Mass chest X-ray surveys are handled by the Tuberculosis Control Program. This Section endeavors to promote mass chest X-ray surveys.

## OTHER ACTIVITIES

Professional meetings attended ....	247	Inquiries on industrial hygiene	
Lectures and talks given .....	40	answered .....	710
Publications .....	35	Literature distributed to industry	
		approximately .....	15,312

The above totals depict in some measure a few of the other activities in which the staff has participated. The various inquiries on industrial hygiene have almost doubled in the past year. Much time and preparation goes into the replies to these inquiries.

The approximate number of 15,312 pieces of literature distributed does not include the industrial health bulletins or other mail sent out on the regular mailing list.

Many inquiries were received concerning the proposed Chapter XV of the State Sanitary Code.

#### SPECIAL PROJECTS

The Section has also conducted the following projects, viz.

##### I. COMMUNITY-WIDE INDUSTRIAL SURVEYS

Only one community-wide industrial survey was conducted and partially completed within this fiscal year. The primary objective of such a project is the promotion of constructive and preventive aspects of an Adult Health Program. Considerable interest has been manifested by several other communities for this type of service.

##### II. EDUCATIONAL AND PROMOTIONAL ACTIVITIES

The medical and nursing activities in addition to the consultative services and plant survey activities have included:

1. Cooperation with other Sections of the Health Department in planning for extension of their services to industry and assistance in correlating services.
2. Cooperation with colleges, universities, schools of nursing, nursing educational leaders and nursing organizations in the development of educational programs for student nurses, in schools of nursing, nurses in industry and nurses in advanced courses of study in industrial hygiene.
3. Field training and orientation programs for nurses from colleges and universities.
4. Development of practical plans for providing medical and nursing services for small industrial plants according to their indicated needs.
5. Counsel and guidance are offered to those nurses in industry demonstrating potential leadership and possess qualifications necessary as nursing supervisors and consultants in the industrial fields; also cooperation with consultants from insurance companies and other agencies.
6. Maintenance of a roster of industrial nurses and handling applications of nurses interested in industrial nursing.
7. Participation in health programs, conferences, panel discussions, etc., sponsored by allied health organizations and civic groups.

##### III. IN-SERVICE TRAINING

1. A program of in-service training was set up for the nurse from the Cancer Section. The purpose of this training was to acquaint the nurse with the principles and techniques involved in conducting an adult health epidemiological study of the industrial population.
2. Public Health Sanitarians of the Bureau of Environmental Sanitation were given a presentation of atmospheric sampling techniques by the engineering staff, and a panoramic view of the "total health" activities of the Section on Adult and Industrial Health by the medical personnel.
3. An engineer was sent to the U.S. Public Health Service for one week of intensive training in the use of radiation detection and measuring devices.

## IV. "SPECIAL HAZARDS" INVESTIGATIONS

1. *Anthrax Study*—An evaluation of the data compiled during the past 15 years was made. These facts were discussed with the Department's Senior Public Health Veterinarian and representatives from the U.S. Public Health Service. The recently proposed rules and regulations controlling the anthrax problem as prescribed by the New Jersey Department of Labor were carefully studied and commentaries submitted as requested by the Department of Labor. Epidemiological and statistical studies indicate no relationship between livestock anthrax and industrial anthrax. However, these studies do indicate an industrial anthrax problem in the carpet wool industry.
2. *Beryllium*—Twenty cases of beryllium poisoning have been investigated in a survey conducted during December, 1948, and the first six months of 1949. Three deaths due to beryllium poisoning were investigated during this survey.

## V. SPECIAL COMMUNITY PROBLEMS

1. *Lead*—Thirty-five individuals in one section of a community were examined for lead poisoning as a result of alleged cases of lead poisoning having been reported to the New Jersey State Department of Health. The investigation has unearthed no data that would indicate that a public health hazard from lead exists in the community.
2. *Nuisance Complaints* totaled 79 requiring 114 visits. Attempts were made to establish whether these complaints were of a health nuisance, or purely of a nuisance nature with property and crop damage. Some of the other complaints involved noise-in-plant, poor lighting, sanitary facilities, and out-of-plant odors.
3. One of the station wagons has been prepared and equipped for continuous or "on the spot" direct sampling. This is to be used primarily in atmospheric pollution studies.

## VI. INDUSTRIAL HEALTH BULLETIN

Volume III of the Industrial Health Bulletins was prepared by the staff of the Section on Adult and Industrial Health. These bulletins are reviewed by the entire professional staff before printing. The regular mailing list has grown rapidly during this past year.

A most spectacular interest has been manifested in Volume III, No. 6, "Medical Department Personnel," and No. 7, "Medical Department Overhead." Requests for additional copies are still being received from not only all parts of the United States, but from many foreign countries. Such response has demonstrated two important points: (a) that there was a dire need for such information; and, (b) the contents were carefully and concisely presented.

Schools, industries, statisticians and insurance companies have requested large numbers of additional copies of these bulletins. Many universities and colleges have requested as high as 50 copies of each bulletin for the members of their classes.

## VII. VISITORS

Representatives from various industries, insurance companies, and other organizations have visited this office to obtain factual data and professional guidance.

## Section on Maternal and Child Health

### MATERNAL MORTALITY

The maternal mortality rate in New Jersey consistently continues to decrease. In 1948 there were 76 maternal deaths which make a rate of less than one (0.8) per 1,000 live births.

If the 1938 rate of 3.3 had prevailed, there would have been 245 more maternal deaths in 1948, or a total of 321 instead of 76.

If the 1928 rate of 5.7 had prevailed, there would have been 468 more maternal deaths in 1948.

New Jersey continues to present one of the lowest maternal mortality rates in the country.

The statistical study showed that the maternal deaths during 1948 were attributable to the following causes:

	Per Cent
Hemorrhage, trauma, shock .....	30
Infection .....	26
Toxemias .....	36
Other causes .....	8

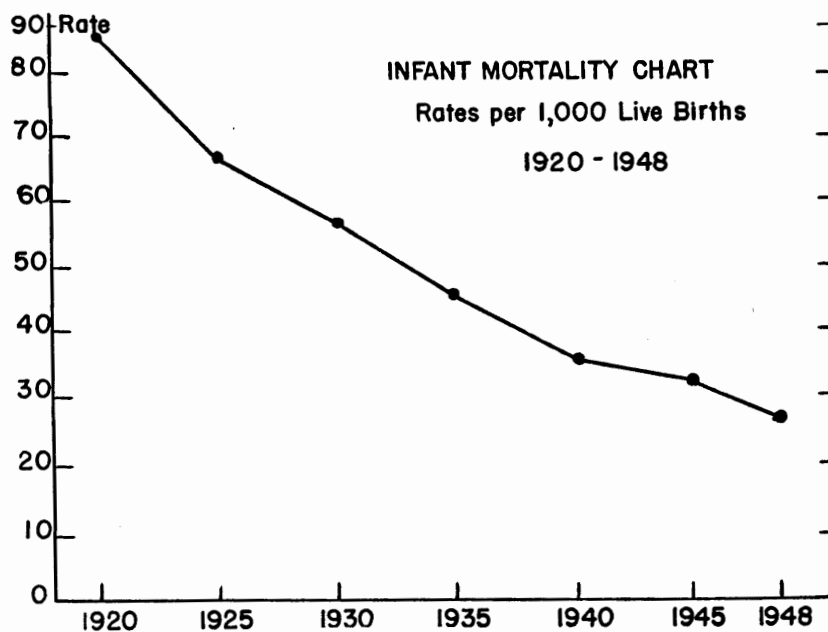
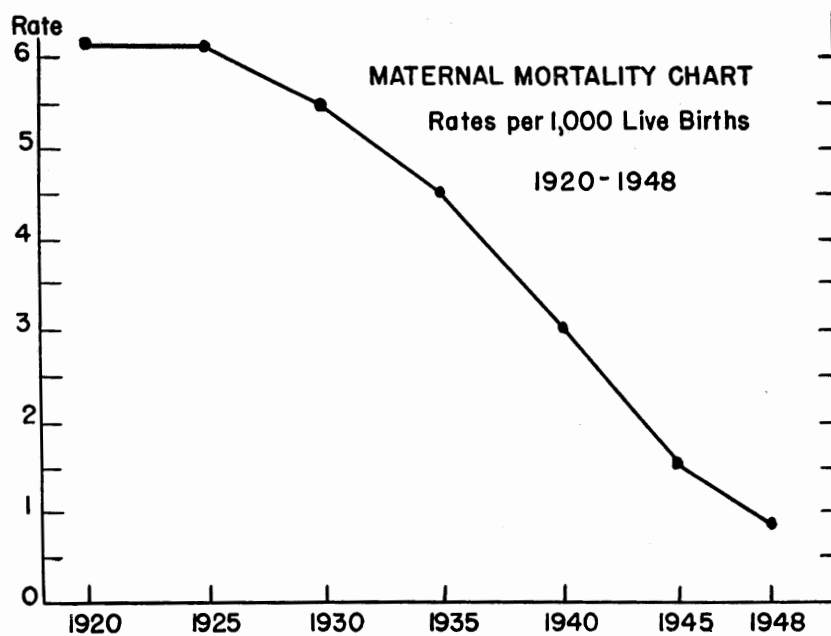
### INFANT MORTALITY

The infant mortality rate for 1948 indicates further reduction in the number of infant deaths per 1,000 live births. The rate of 26 is the lowest yet attained in the State.

The lowest infant mortality rate for 1948 among the counties of the State was the rate of 16 for Ocean County. The highest rate, 46, was observed in rural Hunterdon County.

If the 1938 rate of 39 had prevailed, there would have been 1,204 more infant deaths in 1948.

If the 1928 rate of 65 had prevailed, there would have been 3,734 more infant deaths in 1948, or a total of 4,938 deaths instead of 2,589.



Two-thirds of all the deaths in the first year occurred in the first week. Since most of the births occur in hospitals, a reduction in the mortality from prematurity, which is the principal cause of death, will have to come primarily from two sources: (1) more effective prenatal care; and, (2) better care of the newborn in hospitals.

#### HOME DELIVERY NURSING SERVICE

The use of the home delivery nursing service continues to decrease. There were only 63 home deliveries where 10 registered nurses assisted the physician. Obstetrical consultants who are available for home deliveries were called in 4 cases.

#### BABY KEEP-WELL STATIONS

There were 175 Baby Keep-well Stations conducted throughout the State under the supervision of the Section on Maternal and Child Health. Physicians served in 112 of these stations. Doctors in 95 of these stations were paid by the State Department of Health. In 11 of the stations doctors in attendance were paid locally or served without compensation.

The doctors in the stations made 11,157 examinations of infants and 4,420 of preschool children, and advised all mothers in the care, feeding, and management of their infants. Efforts have been made through films and conferences to stimulate interest in the well baby and the teaching of mothers.

#### EDUCATIONAL ACTIVITIES

The education of the nurses under the supervision of the Section has continued with special emphasis on Anticipatory Guidance in relation to parent-child relationships. For this purpose all new nurses have taken special courses given under the auspices of Seton Hall College. Our Psychologist has then continued discussions of special situations with small groups for the purpose of helping the nurses properly to present the Anticipatory Guidance program to the mothers. We have received very gratifying reports of the effectiveness of this method of approaching mental hygiene. Our work has been particularly recognized by the School of Public Health and Hygiene at John Hopkins University. It has been the practice in recent years for Paul V. Lemkau, M. D., Director, Mental Hygiene Study, to assign each year a number of his students to observe at first hand the work our nurses are doing in the field. During the past year one physician came from Ecuador and one from Bolivia.

Carefully selected pamphlets have been given to the nurses for distribution to mothers. This has served the purpose of enabling the nurse to discuss various phases of behavior in emotional and mental development.

Films on certain aspects of child care have been purchased and made available to local groups. The district supervisors have arranged for the showing of these films before nurse groups, Parent Teachers' groups, and special groups organized through the Baby Keep-well Stations. All films have stressed and emphasized the general theme of the understanding of emotional and mental development of children and the improvement of parent-child relations through Anticipatory Guidance.

#### MATERNITY HOMES

There were 16 maternity homes inspected by the public health nurse on the Maternal and Child Health staff and recommended for licensing.

#### EXTENSION OF ACTIVITIES

Of the 265 field nurses under the supervision of the Section on Maternal and Child Health, 189 were paid entirely by the communities in which they work, 63 were paid partly by the State and partly by the communities in which they work, and 13 were paid entirely by the State.

The 265 nurses had under their supervision 13,473 expectant mothers, 20,960 postpartums, 44,540 infants, and 55,360 children between one and six, and 147,281 school children.

Maywood in Bergen County was the only new demonstration program during the year.

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

*Atlantic County*—Buena Vista Township.

*Bergen County*—Montvale, Park Ridge, Lyndhurst, South Hackensack Township, Woodridge, East Paterson, New Milford, Fairview.

*Camden County*—Winslow Township, Magnolia, Gibbsboro, Bellmawr.

*Gloucester County*—National Park, Paulsboro, Harrison Township, Monre Township.

*Hunterdon County*—Raritan Township, Harmony Township, Lambertville.

*Middlesex County*—Raritan Township.

*Morris County*—Mine Hill.

*Passaic County*—Passaic.

*Sussex County*—Hamburg, Sussex, Lafayette, Byram Township, Hopatcong Township, Hardyston Township.

*Union County*—Garwood.

*Warren County*—Hackettstown, Alpha, Belvidere.

The following are the total amounts of contributions made by local communities toward the salaries of Maternal and Child Health nurses placed in their communities for demonstration of the Maternal and Child Health program:

1944 .....	\$10,642.00
1945 .....	26,262.36
1946 .....	12,848.00
1947 .....	10,621.00
1948 .....	8,759.00
1949 .....	29,829.40

#### STATISTICAL SUMMARY OF THE 265 NURSES' WORK

Home visits made by the nurses .....	510,893
To expectant mothers .....	41,564
To postpartums .....	49,129
To infants .....	202,793
To children 1 to 6 .....	167,729
To school children .....	49,678
Visits to Baby Keep-well Stations .....	36,312
By infants .....	24,826
By children 1 to 6 .....	11,486
Child Hygiene Leagues (classes conducted) .....	197
Mother's classes conducted .....	41
Dental sessions, nurse assisting .....	644
Children under one year of age immunized .....	12,279
Children one to five years of age immunized .....	7,273
Children vaccinated .....	15,965
School children supervised .....	147,281
Inspections (assisting doctor or general) .....	731,421

#### ILLEGITIMATE BIRTHS

There were 2,316 illegitimate births among New Jersey residents. This represented 2.3 per cent of the total births for the State, the same as in 1947. Two per cent were born to mothers under 15 years of age, 37 per cent between 15 and 19, 34 per cent between 20 and 24, 15 per cent between 25 and 29, 7 per cent between 30 and 34, and 4 per cent over 35.

During the past year a conference was held with the Welfare Division of the Department of Institutions and Agencies to consider the various activities carried on in relation to illegitimate infants, foster homes and adopted infants. It was pointed out that the Maternal and Child Health nurses were in a good position to help considerably in reporting illegally adopted infants and to arrange for better care of illegitimate babies.

**MIDWIFERY**

There were 148 licensed, registered midwives in New Jersey in 1948 or 13 less than in 1947. Of these 133 were supervised by the State Department of Health and 15 by a local department.

Of the 148 midwives, 84 delivered no cases during the year, 56 delivered less than 12 cases, and 9 delivered more than 12 cases.

**ADVISORY SERVICE TO HOSPITALS**

While the licensing of hospitals is carried on by a special Licensing Board under the Department of Institutions and Agencies, we have continued to make available to the hospitals a special advisory service under a physician and nurse. This concerns itself entirely with maternity services and the care of the newborn. Many improvements have been made in the techniques and in the facilities. We have maintained a close co-operation with the representatives of the Licensing Board. In accordance with one of the regulations of the Licensing Board of the Department of Institutions and Agencies we have set up standards for maternity and newborn services.

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**Nutrition Program**

The nutritionist has co-operated with many Sections of the Department to administer an over-all nutrition program. In order to do this effectively a consultation type of service has been arranged.

Special attention has been given to certain groups such as women during pregnancy, children, low income families, rheumatic fever clinics, and cerebral palsy clinics. The nutritionist has interpreted needs and services to these groups by personal contact, participation in programs, radio discussions, articles in Public Health News, and the preparation of materials and exhibits.

Two accredited courses in Public Health Nutrition for In-service Training of Public Health Nurses were given by the nutritionist under the sponsorship of Seton Hall College School of Nursing. These courses were held in Trenton and in Camden. An extension course for health officers in Community Nutrition was given at Rutgers University in the Spring of 1949.

To make the best use of resources within the State it has been essential to co-ordinate programs through joint planning with such groups as the Department of Agriculture, Department of Education and the American Red Cross. At present a pilot study in Community Nutrition is being planned with the co-operation of the County Home Agent in Burlington County.

Consultation service for Inplant-feeding in reference to food service and educational programs has been offered through the co-operation of the Adult and Industrial Health Section. A similar type of service has been offered to an institution for unwed mothers.

The nutritionist has been active in the State Nutrition Council and has worked as a member of the Candy Committee which is interested in curtailing the sale of candy in the schools. The outstanding nutrition project for the year, which is being developed by the Council, is "Nutrition for Later Life." The nutritionist has served as a member of the planning committee for this project.

During the year, several thousand pamphlets and posters on nutrition were distributed.

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### Section on Public Health Nursing

The Public Health Nursing Section, an innovation in the State Department of Health of New Jersey, was created on March 1, 1949, with the appointment of an Acting Chief. A part of the Bureau of Constructive Health, this Section is presently comprised of the Acting Chief and four public health nursing consultants. Four additional consultants are to be added in the near future.

The major problem facing the Public Health Nursing Section was the integration and co-ordination of all nursing services throughout the Department in order to render more effective services in conjunction with other departmental activities.

Securing necessary equipment and supplies required a considerable expenditure of time, thought and effort.

Since one of the outstanding needs is to improve the educational and professional experience of the nurses, in order that they may meet recognized standards, immediate steps were taken to formulate policies and procedures relative to study programs to be followed by the public health nurses employed by the Department. Numerous individual and group conferences with consultants, administrative personnel and educational leaders were necessary.

Official educational credentials for public health nurses throughout the Department are being obtained, reviewed, compiled and placed on file in the Public Health Nursing Section.

Recommendations were made regarding requirements for professional preparation and experience for public health nurses to be employed by the Department. These are in accord with current and approved standards for public health nurses.

Regular group conferences of the consultants and the Acting Chief have been established.

Correspondence and interviews with prospective nursing personnel occupied a major portion of time. Counselling and guidance was given to many nurses from various fields.

Working relationships were initiated and maintained with personnel of national, State and local agencies—official and non-official—employing public health nurses.

Consultation services were rendered upon request to several communities interested in setting up or reorganizing public health nursing services within a given area. Other communities have indicated the desire for similar assistance.

A system for uniform recording and reporting of consultants' activities has been established. Monthly plans and weekly itineraries have been inaugurated. It is hoped that such planning will reduce overlapping and duplication of consultants' services. All nursing activities are being increasingly planned to facilitate a maximum of service with a minimal expenditure of time and monies.

One of the great needs as recognized by the Public Health Nursing Section is interpretation throughout the Department of sound public health nursing principles and practices.

Public Health Nursing Section personnel have provided leadership by participating in nursing organization activities toward the improvement of nursing service.

## Report of the Bureau of Environmental Sanitation

July 1, 1948—June 30, 1949

Section on Food and Drugs .....	LOUIS M. LOUNSBERY, D. V. M. <i>Veterinarian in Charge</i>
Section on Public Health—Engineering .....	HARRY P. CROFT, C. E. <i>Chief</i>
Rabies Control Unit .....	J. S. MCDANIEL, D. V. S. <i>Veterinarian in Charge</i>



## Bureau of Environmental Sanitation

Organization of the Bureau of Environmental Sanitation was well under way at the close of the fiscal year, with the bureau director, Mr. Alfred H. Fletcher, scheduled to report for duty on July 16, 1949.

The veterinary public health activities of the State Department of Health were increased by the addition of a Senior Public Health Veterinarian to the staff of the Bureau of Environmental Sanitation.

The duties of this person are to co-ordinate the diverse activities relating to veterinary medicine and public health. The program is being planned with a view of controlling or eliminating all animal diseases transmissible to man. Specific training will be given to some of the veterinarians presently on the staff in order to enhance their value to the Department and make possible integration of their activities into a general district plan that is contemplated.

The Legislature passed Assembly Bill 59 which appropriated \$50,000 for aerial spraying for mosquito control in the four Atlantic seashore counties—Monmouth, Ocean, Atlantic and Cape May. On May 11 Governor Alfred E. Driscoll signed this bill into law known as Chapter 89, P. L. 1949. This law became effective on July 1, 1949. The State Commissioner of Health, Daniel Bergsma, M.D., M.P.H., is charged with the authority to administer this law.

An Advisory Committee on Mosquito Control was appointed by the State Commissioner of Health consisting of one representative from each of the four Atlantic seashore Mosquito Extermination Commissions, a representative from the N. J. Agricultural Experiment Station, the State Department of Conservation and Economic Development, the Monmouth County Health Officers Association and the State Department of Health. Three consultants were also appointed to assist the Advisory Committee on Mosquito Control. They were from the N. J. State Department of Defense, the U. S. Public Health Service and the U. S. Department of Interior.

One meeting of this Advisory Committee on Mosquito Control was held on June 8 at which time plans were developed for an attack on the mosquitoes which affect the health and comfort of the four Atlantic seashore county residents. The next meeting of the Advisory Committee was called for July 1, 1949.

### Section on Food and Drugs

During the fiscal year ending June 30, 1949, the Bureau of Food and Drugs was reorganized and became the Section on Food and Drugs within the Bureau of Environmental Sanitation.

Walter W. Scofield retired as Chief of the Bureau of Food and Drugs on December 31, 1948, after thirty-six years of service with this Department.

Louis M. Lounsbery, D.V.M., who was employed as Veterinarian in Charge, Milk Sanitation Program, was named to head the newly created Section on Food and Drugs.

### FOOD AND DRUG CONTROL PROGRAM

The Section on Food and Drugs continued the enforcement of existing laws and regulations governing the handling, preparation, storage, distribution and transportation of foods, drugs and cosmetics under sanitary conditions and the laws and regulations passed to prevent the adulteration and misbranding of foods, drugs, devices and cosmetics.

Enforcement of regulations establishing bacterial standards for milk products and requiring raw milk for the ultimate consumer to be produced by cows showing a negative brucella blood test, was delegated to this Section.

Sanitary inspections of large food processing establishments were made by representatives of this Section. Special emphasis was placed on inspections of establishments engaged in the mass production and storage of foods in this State.

During the fiscal year, 1,840 routine sanitary inspections were made of bakeries and 2,211 inspections were made of eating establishments. Where unsatisfactory conditions were found, letters of advice and/or warnings were forwarded. Reinspections were made to determine if the unsatisfactory conditions had been corrected. Where improvements were not noted, the proprietors were given opportunities to appear to show cause why legal action should not be instituted. In some cases prosecutions were recommended.

During sanitary inspections and collection of samples of foods for analysis, the following articles were found to be adulterated and were condemned and destroyed under the supervision of agents of this Department and certain local boards of health.

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

<i>Article</i>	<i>Amount</i>
Bakery ingredients .....	675 pounds
Bread crumbs .....	2,290 pounds
Cake .....	75 pounds
Candy .....	107,497 pounds
Canned goods .....	143 cans
Cereal and grain products (including flour) .....	34,279 pounds
Cherry jam .....	12 pounds
Chocolate .....	30 pounds
Cooking oil .....	2 gallons
Cracker meal .....	22 pounds
Dates .....	50 pounds
Eggs (dried) .....	105 pounds
Fruits and vegetables (dried) .....	285 pounds
Gelatin .....	15 pounds
Honey .....	44 pounds
Ice cream .....	20 quarts
Macaroni .....	91 pounds
Meats .....	1,367 pounds
Milk (powdered) .....	85 pounds
Non-alcoholic beverages .....	1,500 bottles
Nuts .....	1,661 pounds
Shellfish (clams) .....	4,589 pounds
Spices .....	340 pounds
Sugar .....	1,140 pounds

## MILK PROGRAM

Formerly insufficient appropriations for traveling expenses curtailed the number of out-of-State inspections of dairy farms and milk plants holding permits from this Department. Within the past twelve month period, a majority of the plants holding fluid milk permits were inspected by representatives of this Department. The balance of the fluid permit holders' plants were inspected by inspectors from local boards of health. Furthermore, new applicants for permits were required to submit information re the quality of their product on forms supplied by the Department, together with certifications from the State agencies in the State where the plant was located. From time to time, additional information on the status of milk supplies was received from the United States Public Health Service which was used in evaluating the quality of supplies.

Formerly all in-State dairies were visited and inspected five or six times per year. This routine has been reduced to four times per year and plans have been completed to intensify the use of Breed smears at milk decks of receiving dealers to screen out dairies with good quality milk. These will be

visited only once or twice per year and the dairies with poor quality milk will be visited as often as necessary to get correction of defects. Bacterial counts will also be used extensively in quality control.

During the past year the field covered by the milk inspectors has been broadened to include ice cream factory inspection. This work had previously been done by one inspector whose responsibility it was to advise on new constructions, inspect and sample products of over 650 ice cream factories. The increased coverage has resulted in a more adequate review of the methods employed by the industry in New Jersey.

On April 20, 1949, the State Commissioner of Health adopted a resolution requiring that all milk reaching the ultimate consumer in the raw state must be produced by cows showing a negative brucella blood test. The industry was informed of the deadline set for July 19, at which time all raw milk sold as such had to meet the above requirement. The response was mixed, some producers going out of the retail raw milk market without testing, some going out as a result of testing, some tested and remained in the market and, in a few instances, consideration is being given to construction of pasteurization plants.

#### BRUCELLOSIS RESOLUTION

WHEREAS, The disease Brucellosis affects both cattle and man, and

WHEREAS, The disease in humans, called Undulant Fever, is known to be contracted in a proportion of the cases by the ingestion of raw milk from cattle that are so infected with Brucellosis (Bang's Disease), and since the hazard to the consuming public of such infection occurring through the ingestion of such infected milk in the raw state does exist, therefore,

- *Be It Resolved*, That the Department of Health does hereby require that any producer or distributor or retailer of raw milk for sale to the ultimate consumer in the raw state must possess evidence of a negative official brucella blood test for each animal maintained for the production of such raw milk. Such test to be acceptable to the State Department of Health must be conducted by an accredited private practicing veterinarian or by a veterinarian employed by the State Department of Agriculture or by the United States Bureau of Animal Industry, must have been conducted within one year prior to the effective date of this regulation and on an annual basis thereafter; provided that when deemed necessary evidence of such test may be required at more frequent intervals by the State Commissioner of Health.

Also on April 20, the Commissioner adopted a resolution establishing bacterial standards for milk, cream, ice cream mix, ice cream, sherbets and ices. The act of adopting these standards was enough to cause many plants not previously concerned with quality control work to set up programs. The standards are to be used as a guide to determine the quality of the products sold in New Jersey and to locate, if possible, the sources of contaminated products in order that corrective measures may be applied. Additional micro-

scopes have been transferred to this Section and these are being used by the field force to check the quality of supplies received into milk plants.

BACTERIAL STANDARDS—AGAR PLATE

MILK, SKIM OR WHOLE

	<i>Maximum Permissible Number of Bacteria per c.c.</i>
<i>Raw</i>	
(a) blended or individual bulk can sample taken at receiving station or at source of production .....	150,000
(b) from any consumer package prepared by producer or distributor ..	150,000
(c) sampled after processing .....	400,000
<i>Pasteurized</i>	
(d) sampled either in bulk or consumer package .....	30,000

CREAM

<i>Raw</i>	
(a) sampled after processing at the plant where separation occurs ....	250,000
(b) sampled after separation and shipment either in cans or by rail tank car or by tank truck to pasteurizing plant .....	500,000
<i>Pasteurized</i>	
(c) sampled either in bulk or consumer package .....	100,000

ICE CREAM, ICE CREAM MIX, FROZEN CUSTARD, SHERBETS AND ICES

(a) sampled after processing and production and released as finished product .....	100,000
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These bacterial standards are to be determined by the Standard Agar Plate Test as set forth in the "Standard Methods for the Examination of Dairy Products" of the American Public Health Association or any other method approved and acceptable to the State Department of Health.

Unsatisfactory counts resulting from samples submitted by State or local health department representatives will be followed by actual inspection of the premises involved in order to aid the producer or processor in determining the cause of the high count.

Non-compliance with the above mentioned bacterial levels will not be based solely on one unsatisfactory count.

Inspection of pasteurizing plants and sampling of their finished products showed a decrease in the amount of improperly pasteurized milk during the year. The chief causes of under-pasteurization were found to be inaccurate thermometers, inlet and outlet valves not properly leak protected, and improper manual manipulation of valves. No improperly pasteurized milks were traceable to high-temperature-short-time pasteurizing units. There are 55 of these units now being operated under our supervision with several other plants

definitely planning installations. It can be expected that more of the high-temperature-short-time units will be installed as the price is lowered and smaller units produced. Equipment has been acquired by the Section which will enable the inspectors to check the operation of high-temperature-short-time pasteurizing units more completely.

Toward the close of the fiscal year a furore was created in the milk market due to an increase in supply throughout the milk shed. Milk at lower cost from out-of-State was available and as soon as retail prices started to drop, some in-State producers said the quality of imported milk had also dropped. Most of this was by inference rather than direct statements. Samples for bacterial analysis were obtained from most of inter-State shippers which, when analyzed, showed that the majority of the milk being shipped into the State at that time met the established standards. The overall picture of out-of-State supplies compared favorably with in-State supplies. In spite of this, it was found desirable for the Department to change its normal routine somewhat and it was decided that all proper applicants for permits were to be issued temporary permits expiring September 30, 1949. Renewal of the temporary permits would be based on further information submitted by each applicant.

The increased work entailed by the additional sanitary and sampling reports received and related correspondence as well as the added work created by the volume of questionnaires mailed and received has pointed up the lack of sufficient clerical help available in this Section.

During the year sanitarians in this Section inspected 1,602 milk plants and 4,235 dairies.

In examining the farmers' milk as delivered to milk plants, 778 sediment tests and 7,483 Breed smears were taken.

#### SHELLFISH CONTROL PROGRAM

Sanitary control of the shellfish industry was continued with a personnel of four bacteriologists and three field inspectors. From July 1 to October 15, 1948, the shellfish laboratory boat "Inspector" was used in surveys of growing waters. Since that time the boat has been overhauled and placed in condition for sale, with the survey and sampling work being conducted using the two small boats of the Department. Three field laboratories in Essex, Ocean and Cumberland Counties provide laboratory facilities at strategic points for the bacterial and chemical examination of shellfish and water samples. During the year the field laboratories and three bacteriologists were transferred to the Bureau of Laboratories.

Surveys and sampling were conducted in all the growing waters of the State. Inspections were made of the handling and identification of shellfish by dealers and wholesalers both at the points of production and in inland municipi-

palities. Shellfish, originating outside the State, that are shipped by establishments approved by the United States Public Health Service for interstate shipment, are allowed to be sold in New Jersey. Producers and dealers in shellfish in New Jersey are inspected, and if approved, are issued serially numbered certificates by the Department. Every package sold at wholesale is required to have attached an approved type of shipping tag bearing all the identifying information required by the Shellfish Regulations. In this way market samples can be traced back to the waters from which taken, including the route of handling.

A laboratory and bacteriologist are situated in the heart of the large oyster shucking industry in Cumberland County. Shucking and freezing practices, and surrounding sanitation bearing directly on the purity of the product are closely inspected. Every person handling shucked shellfish is required to have an annual medical examination, and specimens taken to insure the absence of typhoid. To date no person suffering from typhoid, or any typhoid carrier, has been discovered. This preventive work will be continued.

During the year two previously condemned areas in the Monmouth County area were reopened for the taking of shellfish throughout the year. The approved area in Sandy Hook Bay was extended northward to a line from the outer end of the Government Pier to Sandy Hook Light. This added an area of considerably more than one square mile to the approved areas available to the catchers of shellfish. There was also reopened a portion of the Shrewsbury River extending from a point 500 feet north of the Seabright Bridge to the railroad bridge at Highlands. These changes in status were determined as the result of sanitary surveys which demonstrated improved condition of the waters. In April 1949, a co-operative survey was initiated in the western part of Raritan Bay, with the United States Public Health Service and the New York State Conservation Department, which will be repeated at intervals through the year.

Bathing areas in tidal waters were sampled at points indicated by the Section on Public Health Engineering, and analyses forwarded for their use. Samples were also taken at the request of the State Department of Conservation and Economic Development. There were utilized also in the collection of water samples, boats operated by the above department and Atlantic City, which assistance is gratefully acknowledged.

Condemned areas were patrolled at intervals. Assistance of one to three men was rendered by the Atlantic City Police Department. These men co-operated in the patrol of condemned areas in that section.

There were examined during the fiscal year, in the laboratory of the boat "Inspector" and in the three field laboratories, 2,915 water samples and 788 shellfish samples. These were made up of 2,755 samples of growing waters and 160 special samples, 154 samples of shell oysters, 309 samples of shucked

oysters, 6 samples of frozen shellfish, 204 samples of hard clams, 99 samples of soft clams, 7 samples of mussels and 9 miscellaneous samples.

Sanitary inspections totaled 1,915. These consisted of 1,741 shellfish shipping establishments, 139 shucking establishments, and 35 miscellaneous inspections.

Four hundred and fifty-six establishments were granted shipping certificates during the year.

#### SLAUGHTER HOUSE AND MEAT PROCESSING ESTABLISHMENTS

In previous years inspections of slaughter houses and meat processing plants in New Jersey were made by one veterinarian working out of the Trenton Office.

During the latter part of the current year, two additional veterinarians, previously utilized exclusively in the Milk Inspection Program of this Section, were assigned to some of this work; one residing in Northern New Jersey and one residing in the Southern part of the State. It was felt that sanitation within these establishments could be better controlled by more frequent visits. During the initial phase of this expanded program, special emphasis was laid upon the physical construction of the plants and within a short time much improvement was noted. This work will be continued during the current year.

Consideration has also been given to the adoption of regulations providing for ante and post mortem inspection of animals slaughtered in New Jersey for human consumption. Studies of the above proposition are continuing at the present time.

Six hundred and nineteen sanitary inspections were made of the one hundred and sixty-six licensed slaughter houses during the past year. Fifty-three sanitary inspections were made of meat processing establishments.

#### COLD STORAGE WAREHOUSES

During the year four hundred and eighteen inspections were made of the eighty-eight licensed cold storage warehouses located in New Jersey.

The Cold Storage Act limits the storage of articles of cold storage food to twelve months, excepting in those cases in which permission is requested of the Department and granted after the articles have been examined and found suitable for additional storage.

During the year extensions of time were granted for the storage of articles in cold storage as follows:

<i>Quantity</i>	<i>Article</i>	<i>Extension Granted</i>
325 pounds	Eggs	4 months
52,362 pounds	Beef testes	3 months
20 tubs	Butter	3 months
763 cases	Cheese	3 months
17,000 pounds	Fish	3 months
44 boxes	Fish	3 months
23 cartons	Hog stomachs	3 months
280 cases	Lard	3 months
27,094 pounds	Meat	3 months
234 boxes	Meat	3 months
3,410 pounds	Poultry	3 months
23 packages	Poultry	3 months
50 cases	Cheese	2 months
14 pieces	Meat	2 months
2 tierces	Sheep casings	2 months

Each of the above lots of foods was inspected by an agent of the Section on Food and Drugs to determine its suitability for additional storage.

## ANNUAL COLD STORAGE REPORT

1948 — 1949

Article	July 1948	August 1948	September 1948	October 1948	November 1948	December 1948	January 1949	February 1949	March 1949	April 1949	May 1949	June 1949
Eggs, cases, lbs. ....	381,766	288,972	193,656	85,343	14,704	1,765	13,272	21,610	46,388	62,321	202,120	149,707
Eggs, broken, lbs. ....	4,657,650	3,963,927	4,100,618	2,573,673	2,429,348	1,173,675	1,333,314	1,329,345	1,689,756	2,692,444	3,635,752	3,680,211
Cheese, lbs. ....	3,086,058	2,614,646	3,921,496	3,340,414	3,057,777	2,684,829	2,749,878	2,864,585	3,169,475	3,771,985	3,951,138	4,558,454
Butter, lbs. ....	5,941,542	6,675,197	6,372,436	6,278,902	4,766,128	1,430,326	731,523	327,686	311,217	453,948	1,635,551	5,469,378
Poultry, lbs. ....	4,590,936	3,680,173	4,453,649	5,586,904	4,206,940	4,602,116	4,319,246	3,860,161	3,493,395	3,089,250	2,513,869	3,037,040
Fresh meat, lbs. ....	12,195,618	7,706,667	8,701,449	6,761,577	9,960,222	14,363,707	17,952,498	17,402,386	16,710,055	15,625,614	12,119,060	11,611,229
Fresh fish, lbs. ....	5,409,434	4,948,137	5,806,922	7,221,577	4,333,407	7,468,738	6,691,266	5,992,672	6,600,777	7,897,503	8,137,270	9,719,275
Milk and milk products, lbs. ....	3,698,403	4,713,098	9,529,773	8,093,082	5,716,568	4,774,176	3,010,683	1,853,767	686,495	590,977	1,438,723	2,390,840
Edible fats and oil, lbs. ....	1,879,843	2,261,034	2,003,064	2,714,197	2,219,971	2,524,336	2,512,654	2,919,869	2,077,593	1,683,578	701,232	259,058
Game, lbs. ....	1,404	687	339	7,778	17,230	31,818	23,678	14,985	6,251	320	.....	.....
Miscellaneous, articles, packages ....	907,884	883,883	933,659	1,825,769	1,276,359	1,194,456	159,086	124,205	181,850	175,722	229,925	258,399

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

	<i>Inspections</i>
Bakeries .....	1,840
Candy factories .....	110
Canning factories .....	147
Cider presses .....	15
Cold storage warehouses .....	418
Dairies .....	4,235
Drug manufacturing establishments .....	2
Drug stores .....	108
Egg breaking establishments .....	35
Flour warehouses .....	3
Food markets .....	921
Ice cream manufacturing plants .....	1,101
Meat processing establishments .....	53
Milk plants .....	1,602
Miscellaneous food processing plants .....	174
Non-alcoholic beverage establishments .....	346
Poultry slaughter houses .....	11
Restaurants .....	2,211
Shellfish shipping establishments .....	1,741
Shellfish shucking establishments .....	139
Shellfish establishments (miscellaneous) .....	35
Slaughter houses .....	619
	15,866

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

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Misbranded</i>	<i>Total</i>
Milk and cream .....	2,930	102	6	3,038
Foods .....	1,261	230	4	1,495
Drugs .....	454	50	36	509
	4,645	382	46	5,042

PENALTIES

During the year, \$1,700.00 was collected in penalties for violations of the Food and Drug Laws.

## FEES

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

598 Milk permits .....	@	\$25.00 .....	\$14,950.00
16 Goat milk permits .....	@	10.00 .....	160.00
1 Goat milk permit .....	@	5.88 .....	5.88
1 Goat milk permit .....	@	3.34 .....	3.34
1 Goat milk permit .....	@	3.00 .....	3.00
28 Ice cream plant licenses .....	@	100.00 .....	2,800.00
11 Ice cream plant licenses .....	@	50.00 .....	550.00
11 Ice cream plant licenses .....	@	25.00 .....	275.00
44 Ice cream plant licenses .....	@	10.00 .....	440.00
641 Ice cream plant licenses .....	@	5.00 .....	3,205.00
88 Cold storage licenses .....	@	10.00 .....	880.00
5 Narcotic drug licenses .....	@	50.00 .....	250.00
43 Narcotic drug licenses .....	@	5.00 .....	215.00
<hr/>			
1,488			\$23,737.22

## Section on Public Health Engineering

NUMBER OF WATER AND SEWERAGE PROJECTS EXAMINED AND APPROVED FROM  
JULY 1, 1948 TO JUNE 30, 1949

<i>Type of Projects</i>	<i>No. of Projects</i>	<i>No. of Plans</i>	<i>Engineers' Estimates of Costs</i>
<i>Water:</i>			
Alterations, improvements and additions to waterworks .....	60	144	\$946,618.50
New systems and supplies .....	10	29	509,488.50
Total .....	70	173	\$1,456,107.00
<i>Sewage:</i>			
Sewer extensions .....	78	170	\$1,313,208.65
Alterations and additions to sewerage systems, sewage and/or industrial waste treatment plants .....	40	432	10,978,488.88
New sewage and/or industrial waste treat- ment plants, systems and appurtenances..	37	240	7,632,090.00
Total .....	155	842	\$19,923,787.53

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

As hereinafter referred to, the Department's activities in Stream Pollution Control are governed by certain laws, rules and regulations and policies lodged

within the State Department of Health for enforcement. There follows a summary of the man-hours spent by representatives of the Section on Public Health Engineering of the Bureau of Environmental Sanitation in the enforcement of said activities :

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

<i>Drainage Basin</i>	<i>Sewage and Industrial Wastes Treatment Plants</i>	<i>Stream Surveys</i>	<i>Investigation of Complaints and Special Surveys</i>	<i>Special: Factory Sites (a) Slaughterhouses (b) Bathing Waters (c)</i>	<i>Conferences: Interstate Sanitation Comm.; Federal and State Agencies; Incode and Other Bodies</i>	<i>Total Hours All Activities</i>
Delaware River .....	762	285	234	10(a)	397	1,688
Raritan River .....	500	111	113	5(b)	240	969
Passaic River .....	326	33	29	13(a)	53	454
Hackensack River .....	126	66	..	9(a)	162	363
Atlantic Coastal Plain .....	385	293	110	270(c)	235	1,293
Other Rivers .....	179	20	17	11(a)	174	401
Special Works .....	16	..	9	..	318	343
Total hours .....	2,294	808	512	318	1,579	5,511
Total hours potable waters	1,267	503	387	223	746	3,126

## MAN-HOURS IN FIELD ON WATER SUPPLY SOURCES AND TREATMENT

*Public Water Supplies*

Inspections, including water treatment plants .....	1,002
Inspections on potable watersheds .....	3,126
Investigations of complaints .....	1,106
Conferences .....	149

*Cross-connections*

Inspections of installations .....	97
Conferences .....	39

*Certification of Interstate Carriers*

Inspections .....	322
Conferences .....	20

*Rural School Supplies*

Inspections .....	311
Conferences .....	...

Total hours .....

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6,172

## DEPARTMENT OF HEALTH

## SUMMARY OF MAN-HOURS

(1) In field on sewage, industrial wastes, stream pollution (less potable watersheds) .....	2,385
(2) In field on water supplies and supply sources (including potable watersheds) .....	7,285
(3) Man-hours required in office on plans, reports, conferences, etc.....	17,539
	<hr/>
Total man-hours .....	27,209
(4) Total man-hours overtime, field and office .....	3,175
	<hr/>
Total man-hours expended.....	30,384

## NOTICES AND OTHER LEGAL ACTIONS

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

*Notices issued:*

R. S. 58:10, et seq. ....	4
R. S. 58:11, et seq. ....	17
R. S. 58:12, et seq. ....	10
R. S. 26:3-31 and Chapter 177, P. L. 1947 .....	1
R. S. 58 and R. S. 32 .....	1
R. S. 58:11-18.12 .....	1
Orders of Necessity issued (R. S. 40:1-16, g).....	6

*Cases referred to Department of Law and Public Safety for violation of:*

R. S. 24:14, et seq. ....	2
R. S. 58:10, et seq. ....	3
R. S. 58:11, et seq. ....	5
R. S. 58:12, et seq. ....	6
R. S. 58:12 and Chapter 146, P. L. 1939 .....	1
Chancery Court decrees .....	4

*Cases withdrawn from Department of Law and Public Safety for violation of:*

R. S. 58:10, et seq. ....	1
R. S. 58:11, et seq. ....	12
R. S. 58:12, et seq. ....	2
Chapter 308, P. L. 1942 .....	1

*Permits rescinded:*

Establishment of factory on potable watershed .....	1
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*Records of Department transferred and/or changed:*

Public water supplies .....	2
Application for permit to establish on potable watershed denied.....	1
Application for approval of public water supply source disapproved.....	1
Applications for approval of sewer extensions denied.....	4
Application to by-pass raw sewage denied .....	1

## ORDERS OF NECESSITY

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

July 8, 1948—Township of Delaware—The order requires the proposed extension of its sanitary sewer system and the proposed additions and alterations to the sewage treatment plant located in the Erlton section of the Township.

August 6, 1948—Borough of Maywood—The order requires that the Borough must and shall construct the proposed trunk relief sewer on Passaic Street from Lawrence Avenue to Briarcliff Avenue; on Briarcliff Avenue from Passaic Street to Spring Valley Avenue; on Spring Valley Avenue from Briarcliff Avenue to pumping station site; and sewer system pumping station.

September 28, 1948—Township of Pennsauken—The order requires that the Township must and shall construct the proposed sewer works.

January 21, 1949—Township of Haddon—The order requires the construction of sanitary sewer extensions in the Haddonleigh section of the said Township.

March 4, 1949—City of Margate City—The order requires the construction of certain additions and alterations to the public water supply system.

May 24, 1949—Township of Cedar Grove—The order requires the construction of a sanitary sewer system and sewage treatment plant.

RULES AND REGULATIONS DESIGN OF PUBLIC WATER SUPPLIES AND  
WATER AND SEWAGE TREATMENT PLANTS

The Revised Statutes (58:12-3, 58:11-2, 58:11-3, 58:11-10 and 58:10-17, et seq.) require the submission to the Department of Health data comprising plans, specifications, and/or reports upon certain proposed sewerage and industrial waste works, water supplies and water treatment plants, and, additions and alterations thereto. Rules and regulations controlling the submission of such data were established by the State Board of Health in 1913. They were revised by the Department of Health of the State of New Jersey in 1925, supplemented in 1934, and amended in 1935 and 1941.

On April 1, 1949, rules and regulations superseding and rescinding all of the foregoing were established by the Department. The new rules and

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regulations cover the field of the former enactments, revise some of the old requirements, and, include requirements on the design of sanitary sewers and extensions thereof, sewage, pumping stations, sewage plants employing all of the commonly used methods of treatment, public water supplies, and public water treatment plants.

The preparation of the rules and regulations was a project employing all of the experienced technical staff of the Section on Public Health Engineering. Each member of the staff was assigned to work on certain phases of the requirements and to consult with certain others of the staff. The requirements were assembled, edited, compiled, and then submitted in whole to the staff for comment. After numerous conferences among the staff the requirements were written as proposed rules and regulations and submitted to the State Commissioner of Health who established them as official requirements of the Department. The rules and regulations are minimum general and specific requirements subject to amendment and construction in the interest of public health by the State Commissioner.

#### RULES AND REGULATIONS

##### LICENSING OF OPERATORS

Chapter 295, Laws of 1946, required that the Department establish rules and regulations controlling the licensing of superintendents and operators of public water and sewage treatment plants and public water supply systems. Chapter 23, Laws of 1918 and the supplement to it, Chapter 206, Laws of 1938, also required rules and regulations for their administration. Chapter 23, Laws of 1918, is the original licensing act, and, neither it nor its supplement were repealed by the 1946 statute.

On July 1, 1948, the Department established rules and regulations for the administration of the aforesaid three statutes. The former rules and regulations previously adopted under the older statutes were rescinded on the same date.

The rules and regulations set up the mechanics for filing applications for examinations, for the appointment of a board of examiners, for the preparation, conduct, and grading of examinations, and for the issuance of licenses. The board of examiners is established as a body comprised of engineering personnel of the Bureau of Environmental Sanitation and superintendents or operators actively engaged in the respective fields of operation; members are to be appointed annually by the State Commissioner of Health and the board is to report to the Director of the Bureau of Environmental Sanitation.

The rules and regulations classify licenses required at various water and sewage treatment plants and water supply systems, and, they specify minimum

training and experience qualifications for admission to examinations for the various classifications of licenses. In general, the requirements for admission to examinations have been raised, especially as they relate to "training." Some formal training (college, vocational school, extension courses, short courses, etc.) is required for all applicants except those seeking the lowest classifications of licenses. The rules and regulations are established as minimum requirements subject to supplementation or amendment by the State Commissioner of Health. The Department determines the classifications of licenses required. The status of licenses outstanding is not affected by the new rules and regulations.

LICENSING ACT

R. S. 58:11-14, et seq., provides for the examination and licensing, under the direction of the State Department of Health of the State of New Jersey, of superintendents or operators of public water treatment plants, public sewage treatment plants and public water supply systems.

In accordance with the provisions of the legislation referred to, a Board of Examiners is appointed annually to supervise the examining of applicants for licenses.

There follow data upon licensing during the fiscal year ending June 30, 1949:

<i>Applicants</i>	<i>Public Water Treatment Plants</i>	<i>Public Water Supply Systems</i>	<i>Public Sewage Treatment Plants</i>
Examined .....	35	35	41
Licensed .....	21	24	30

CROSS-CONNECTIONS

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

<i>Municipality</i>	<i>Permit Holder</i>	<i>Permit No.</i>
Asbury Park, City of.....	Monterey Holding Co. (The Monterey Hotel).....	208
Belleville, Town of .....	Fada Radio and Electric Company, Inc.....	209
Belleville, Town of .....	Federal Leather Company .....	210
Freehold, Borough of.....	The Nestle Company, Inc. ....	212
Gloucester, City of .....	The Harshaw Chemical Co. ....	216
Paterson, City of .....	Paterson Strang Mill Properties .....	211
Trenton, City of .....	Acme-Hamilton Manufacturing Company .....	109-A
Trenton, City of .....	Crescent Insulated Wire and Cable Company.....	111-A
Trenton, City of .....	National Automotive Fibres, Inc. ....	215
West Paterson, Borough of.....	Julius Schmid, Inc. ....	207

## ESTABLISHMENT OF FACTORIES WITHIN POTABLE WATERSHEDS

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

There follows a list of permits issuing during the year with the name and location of the manufacturing concern involved being designated. It will be noted that the majority of the permits issuing are for the establishment of factories on potable watersheds in the northern section of New Jersey.

<i>Location</i>	<i>Name of Concern</i>
Bridgewater, Township of .....	Research Corp., and/or Research Construction Company, Inc.
Emerson, Borough of .....	James L. Sheridan, T/A Sheridan Studio
Emerson, Borough of .....	John W. Oppelaar & Son
Franklin, Township of .....	Associated Terminal
Hillsdale, Borough of .....	General Confections, Inc.
Passaic, Township of .....	Isolantite Manufacturing Corp.
Rockaway, Township of .....	Austenal Laboratories, Inc.
Rockaway, Township of .....	Polar Fur Dyeing Co., Inc.
Union, Township of .....	Purolator Products, Inc.
Wayne, Township of .....	Howard Brownlee, Sr. (Laundromat)

## WATER SHORTAGE

## LAMBERTVILLE WATER COMPANY

During the summer and early fall of 1948 climatic conditions were such as to induce serious water shortages throughout the State, and especially to those public potable water supplies derived from surface sources. One such water purveyor so affected was the Lambertville Water Company, Lambertville, New Jersey. The following history of this shortage illustrates the need for considerable study by water purveyors, either municipal corporations or private utilities, to the end that an adequate supply of potable water is always available in periods of extreme drought.

On October 22, 1948, officials of the Lambertville Water Company advised the Department that the two (2) impounding reservoirs serving as the sole

source of supply for the Company contained a supply of water which, in their estimation, would be sufficient only for about six (6) days, if not replenished by an adequate rainfall. The Department was advised, further, that the only emergency source of water supply available to the Company was the Delaware and Raritan Canal Feeder, the use of which would require the installation of an emergency pumping station and appurtenances in the City of Lambertville.

The Delaware and Raritan Canal Feeder taps the Delaware River at Raven Rock, and former Governor Moore advocated the use of this canal in 1938, as a source of water supply for North Jersey, with the water to be pumped from the canal near Bound Brook to what would be known as the Dock Watch Hollow reservoir and thus flow by gravity after filtration and chlorination to distribution systems in the area. Departmental representatives made incidental surveys of the canal, in conjunction with Governor Moore's proposal, at which time it was determined that there were numerous cesspool overflows to the Canal Feeder in the vicinity of Lambertville.

Based upon this Department's knowledge of the quality of the water in the Canal Feeder the Water Company was advised that use of the said supply source, in the emergency, would be controlled by the following conditions:

1. The Lambertville Water Company advise the Local Board of Health having jurisdiction as to the proposed use of said emergency source of water supply.
2. That "Boil Water" notices issue to all consumers of the Company, advising as to the use of water from the Canal.
3. That a chlorinator be installed on the emergency pump connection of such capacity that not less than 5.0 parts per million (p.p.m.) residual chlorine will be maintained, after ten minutes contact, in that water pumped to the distribution system, and that operation of the chlorinator be under constant supervision.

The Department was reluctant to permit the use of the Canal Feeder as a source of water supply but was of the opinion that if said supply were not made available to the Lambertville Water Company insanitary conditions would develop in Lambertville and, also, a definite fire hazard would result. One of the most important factors controlling the establishment of the afore-said conditions was the evident discharge of pollution to the waters of the canal from premises located in the City of Lambertville in close proximity to the emergency water point. Since jurisdiction over matters involving the canal is vested in the Division of Water Policy and Supply of the State Department of Conservation and Economic Development their attention was directed to this problem in order that said agency would make every effort to secure an abatement of said discharges. In addition, the local board of health of the City of Lambertville was also apprised of this condition.

With reference to the use of the waters of the canal for potable purposes pumping of this emergency supply started November 1, 1948, and continued until December 16, 1948, at which time the regular supply was sufficiently replenished to enable the Lambertville Water Company to renew normal operations at its treatment plant, and thus abandon use of the canal as an emergency source.

During the period of emergency pumping from the canal the Department made numerous inspections to insure that the conditions previously referred to were being complied with. And, it was apparent that the Company made every effort to comply with said requirements, since it was determined that the delivery of an emergency water supply conforming with the bacteriological standards adopted by this Department in the matter of safe potable water was being effected at such times as inspections were made.

The foregoing illustrates conclusively the problems faced by public and private utilities—especially during periods of prolonged drought—in securing water supply sources. As a matter of good public relations all such utilities should plan in the immediate future in the formulation of a program of investigation as to possible water sources to augment existing supply facilities.

#### SANITARY SURVEY OF SEWAGE TREATMENT FACILITIES AND SURF BATHING WATERS ADJACENT TO NEW JERSEY COASTAL RESORTS

The Department, during the fiscal year, continued its program of conducting studies along the New Jersey coast during the bathing season in order to establish and report upon the bacteriological quality of said waters, used for recreational purposes. Representatives of this Department surveyed sewage treatment plant facilities and collected samples of the bathing waters adjacent to established beaches within the North Jersey Coast area (Raritan and Sandy Hook Bays, and Atlantic Coast from Sea Bright to Beach Haven) on July 28-29, 1948, and May 16-17 and 18, 1949. Bathing water samples were collected at South Jersey Atlantic Coast beaches, from Brigantine to Cape May Point, on May 31 and June 1, 1949. Flood and ebb tide samples were collected on each survey from eighty (80) beaches along the North Jersey Coast and from eighty-two (82) beaches along the South Jersey Coast.

As a guide in its interpretation of the bacteriological findings derived from the examination of samples collected during the aforesaid surveys the State Department of Health of the State of New Jersey relies upon the recommendations of the Joint Committee on Bathing Places of the Conference of State Sanitary Engineers in classifying bathing waters which provide, in part, as follows:

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

Based upon the above recommendations it is concluded that those beaches in the Raritan and Sandy Hook Bay areas are subject to intermittent pollution, the major portion of which is contributed by municipalities and industries in the New Jersey-New York metropolitan area, and the minor portion being induced by unsatisfactory operation of certain sewage treatment plants at adjacent resorts discharging to said waters.

With respect to the bacteriological results obtained from the examination of samples collected at beaches along the entire New Jersey coastline from Sea Bright to Cape May Point it is concluded that the bacterial quality of all bathing waters in this area were satisfactory with the exception of one (1) beach in Asbury Park which was being adversely influenced by the discharge from a small lake.

It is evident that the improvement shown in the quality of said bathing waters, when compared with preceding years, is due to the diligence shown by municipal and civic officials in controlling the operations of their respective sewage treatment plants.

### Rabies Control Unit

During the calendar year ending December 31, 1948, there was no change in the personnel of the Rabies Control Unit of the State Department of Health.

#### REVENUE

Registration tag fees collected by the State Department of Health amounted to \$79,447.10; total expenditures for the same period were \$54,237.42.

#### INCIDENCE OF RABIES

Although the 1948 incidence of 112 cases represented an increase of 18 above the 1947 record, this figure is far below the annual average number of reported cases for the previous decade. During 1948 involvement of new areas caught local health and municipal officials off balance with respect to organization and facilities for preventing the spread of the disease. However, with the co-operative assistance of experienced State personnel and equipment, each outbreak was brought under temporary control. Preliminary organization efforts directed toward a balanced program were completed during 1947, therefore early in 1948 there was inaugurated a system of control comprising two prophylactic measures of procedure; namely, dog management and dog vaccination. The application of the provisions of the Rabies Control Act, Chapter 151, P. L. 1941, covering a period of eight years, established the practicability of the Act as a self-sustaining program of dog and rabies control at all government levels. With citizen co-operation and adequate facilities, dog control in any community can be effectively accomplished by local officials. However, during the year a study of the problem of pound facilities throughout the State revealed much to be desired in the field of equipment and mechanical control of dogs and rabies. (See Table I.)

#### MOBILE UNITS OF THE STATE DEPARTMENT OF HEALTH

In attempting to simplify the problem of local dog and rabies control, particularly in rabies endemic areas, the State Department of Health continued decentralized assistance by means of three mobile units initiated during 1947. The services of the Rabies Control Wardens were in great demand. These agents not only aid local officials in the apprehension and disposal of strays, but they also act in the capacity of prosecuting witnesses against dog owners found guilty of violating the provisions of quarantine (R. S. 26:4-84); and assist in conducting vaccination clinics. Each Rabies Control Warden, working under strict rules of conduct, is cognizant of the necessity of improving public relations between dog owners and local enforcement officials through encouraging effective co-operation on the part of each group. The

amount of time and effort spent in hours of service rendered by agents of the State Department of Health is shown in Table II.

#### DOG VACCINATION

The spread of rabies across the State, despite efforts to achieve control by dog management, led to the conclusion that quarantine and patrol were not enough to protect the people of New Jersey against rabies infection. Accordingly, early in 1948 preparations were completed for the introduction of vaccination of dogs as a new phase of rabies eradication. While dog management reduces the incidence of rabies, immunization of a high percentage of the dogs is necessary to consolidate ground gained and prevent re-introduction of the infection. An effective vaccine now available makes this possible. Vaccination programs have been established with State and local officials participating as follows:

1. Vaccine, tags and certificates are supplied free by the State Department of Health.
2. Rabies Control Wardens and other personnel of the Rabies Control Unit assist local officials in the indoctrination of the public and in other helpful ways, provided local officials establish a suitable location and provide the services of a regularly licensed veterinarian to administer the vaccine.

#### IMPLEMENTING THE PROGRAM OF RABIES CONTROL

Those agents entrusted with the duties of informing the public concerning rabies must have an accurate working knowledge of the prevalence, nature and means of transmission of the disease, together with a clear understanding of the accepted methods for its control. All personnel in daily contact with the public, either individually or in assembled groups, explain through talks and audio-visual aids the desirability of co-operation of dog owners and enforcement agencies. Probably nothing has been more effective than the showing of the film "The Fight Against Rabies" in the schools of the State. During the last school term of 1948, more than 20,000 school children in both public and parochial schools—from the fourth to twelfth grade—saw the pictures, listened to a brief explanation of the rabies program and engaged in a question and answer period which followed. The degree of success of vaccination clinics following school programs has demonstrated that this method is productive in engaging public interest in the rabies program. In addition to the educational features, which in the average municipality require one week, publicity in the form of newspaper releases, radio broadcasts, display of posters and distribution of informative pamphlets supplied by the State Department completes the essentials of a vaccination program.

## INTERSTATE CONFERENCE ON RABIES CONTROL

Acting on the supposition that problems of rabies control are common to New York, Pennsylvania and New Jersey, the Joint Legislative Committee on Interstate Co-operation, of New York, held a meeting at the Roosevelt Hotel on December 15, 1948, at which time the officials of the aforementioned States concerned with rabies control were invited to participate. Although the subject was discussed in detail, no definite conclusions relative to joint procedure were reached during this conference. The Resolutions Committee, prompted by a motion by Joseph Paul, Secretary of the New Jersey Commission on Interstate Co-operation, voted to establish a Continuing Committee. The purpose of the Continuing Committee was to encourage further study of the problems relating to the technical phases of rabies as the basis for future deliberations of the Joint Legislative Committee. During the discussion of rabies, the complex problem of fox rabies control revealed that, according to recent experiences of New York and Pennsylvania officials, fox rabies is likely to become a common problem within the three contiguous States and exist for a long period of time.

## FOX RABIES

The citizens of New Jersey are accustomed to think that rabies is spread and maintained entirely by dogs. However, there have been many outbreaks among wild animals. Enzootics among foxes occurred in Massachusetts in 1812 and in Alaska in 1915. Since 1940 there have been major outbreaks of fox rabies in many southern states. Of unusual concern to the populace of this State is the fact that currently fox rabies is rampant in both the Commonwealth of Pennsylvania and the State of New York. Since animals know no political boundary lines, concerted effort is needed to prevent fox rabies from entering New Jersey. By means of immunization of dogs along the State boundaries and co-operation with predatory animal control agents in effecting reduction of the number of foxes and other predators capable of spreading the disease, this danger of entrance can be minimized.

## GENERAL

## KENNEL AND POUND INSPECTIONS MADE DURING 1948

During the calendar year of 1948 Investigators of this Department inspected pounds and kennels in accordance with the Rules and Regulations Governing the Sanitary Conduct and Operation of these establishments. This work was carried out with the co-operation and assistance of health and municipal officials. Each establishment in which dogs are kept is systematically examined by means of a "score card system" covering the major

points of importance with respect to the health and comfort of the animals kept therein. Owners and caretakers are informed of the condition of the establishment and literature is left at each place as a guide to avoid future violations. During the year a substantial number of municipalities either constructed new pounds and kennels to comply with the standards set by the State Department of Health, or old structures were renovated to meet requirements. The usual violations consisted of poor sanitation; loose dogs; and dogs tied to boxes, barrels and trees, exposed to other animals. These conditions have been remedied through reporting and re-inspections. In order to encourage kennel owners to provide better quarters, pictures and drawings of existing satisfactory establishments are used for demonstration purposes in each case where there is evidence of improper handling of dogs.

#### LEGAL ACTION

Legal actions brought by and in the name of the State Department of Health—at the request of local authorities—resulted in the collection of \$3,230.00 in fines for violations of R. S. 26:4-84 (quarantine) and R. S. 4:19-15.2 (licensing).

#### SUMMARY

1. Reservoirs of rabies infection in animals have been present in the northern part of New Jersey for many years.
2. The traditional rabies control program alone is ineffective in the eradication of the disease.
3. Mass vaccination of dogs by a single dose of antirabies vaccine, when accompanied by good dog management, immediately and permanently checked rabies outbreaks in Mercer, Monmouth and Somerset Counties of this State.
4. Indoctrination of the public with respect to the fundamentals of rabies control is essential to a successful rabies control program.

TABLE I  
THE NUMBER OF CASES OF RABIES REPORTED TO THE RABIES CONTROL UNIT OF THE NEW JERSEY STATE DEPARTMENT OF HEALTH  
FROM JANUARY 1, 1948 TO DECEMBER 31, 1948

COUNTY	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for County
Atlantic .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Bergen .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Burlington .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Camden .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape May .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Cumberland .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Essex .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Gloucester .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Hudson .....	*1	..	*1	..	..	..	..	..	..	..	..	..	2
Hunterdon .....	..	1	..	..	..	1	..	..	**2	1	1	..	6
Mercer .....	..	2	..	..	1	2	1	1	..	..	..	..	7
Middlesex .....	2	5	3	2	..	1	1	1	1	7	†3	6	32
Monmouth .....	..	..	..	..	..	..	..	..	..	..	..	2	2
Morris .....	1	..	..	..	..	..	..	..	..	..	..	..	1
Ocean .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Passaic .....	..	..	1	..	..	..	2	..	..	..	..	..	3
Salem .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Somerset .....	..	1	2	4	1	2	..	1	..	1	2	..	14
Sussex .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Union .....	2	‡10	4	9	1	4	..	3	2	2	§1	2	40
Warren .....	..	1	1	1	2	..	..	..	..	..	..	..	5
Totals .....	6	20	12	16	5	10	4	6	5	11	7	10	112

\* 2 Cats.  
\*\* 1 Skunk.  
† 1 Cat.  
‡ 1 Human, 3 cats.  
§ 1 Cat.

1 Human  
1 Skunk  
7 Cats  
103 Dogs  
112 Total

TABLE II

## FIELD ACTIVITIES OF THE RABIES CONTROL UNIT FOR THE YEAR 1948

Rabies investigations .....	889	Hours
Dog bite investigations .....	298½	"
Conferences .....	3,066	"
Complaints .....	73½	"
Vaccination clinics .....	503½	"
Rabies education .....	289	"
Patrolling .....	6,244½	"
Court .....	575½	"
Kennel and pound inspections .....	568	"
Travel time .....	2,233½	"
Writing reports and summonses .....	1,105½	"
<b>Total</b> .....	<b>15,846½</b>	<b>Hours</b>



## Report of the Bureau of Laboratories

July 1, 1948—June 30, 1949

A. J. CASSELMAN, M. D., Dr. P. H., *Director*

Section on Bacteriology — JOHN H. SPOONER, JR., *Chief*

Section on Chemistry — JOHN E. BACON, *Chief*

Section on Pathology—



## Bureau of Laboratories

The first director of the newly organized Bureau of Laboratories was appointed January 1, 1949.

The Section on Bacteriology, which had been established for years as a separate bureau, had a very satisfactory record in the check tests made by the United States Public Health Service. A perfect rating score was made on the serologic tests for syphilis. Antigens for serologic tests for syphilis in future will be supplied from the Section on Bacteriology instead of from the Unit on Venereal Disease Control.

In the Section on Chemistry, the laboratory work in milk control has been greatly increased, and further extension of this work is contemplated. The laboratory work of the Section on Adult and Industrial Health has been integrated with that of the Section on Chemistry.

The work of the Section on Pathology was started by the Section on Cancer Control, and included the photography of patients and lesions as well as photomicrography. The photographic work will be continued, and the tissue work in this section will be expanded.

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### Section on Bacteriology

The work of the Section on Bacteriology may be summarized in a general way as follows: performs diagnostic tests for syphilis; examines smears for gonorrhea; cultures and identifies pathogenic bacteria; performs agglutination and culture tests for the enteric diseases; makes smears, cultures, concentration method and animal inoculations for tuberculosis; examines stools for intestinal parasites, ova and cysts; makes animal brain examinations and mice inoculations for rabies; examines blood smears for malarial and other tropical diseases; conducts investigations of food products suspected of food poisoning; makes virulence tests; prepares antigens, vaccines and media; and inspects laboratories desiring approval to perform premarital and prenatal blood tests.

A total of 350,289 serological, bacteriological and parasitological specimens were examined during the fiscal year. This number proved to be an increase of 8,499 specimens over those examined during the last fiscal year. There was an increase in tuberculosis examinations, blood agglutinations, Rh factor determinations and miscellaneous specimens. The total number of serology specimens very closely approximated the total for last year: 1948, 282,748; 1949, 281,823, or a difference of 925.

TABLE I

NUMBER OF SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1949

Diphtheria .....	4,998
Tuberculosis .....	14,291
Blood agglutinations .....	<b>7,435</b>
Enteric diseases (feces and urine) .....	10,683
Gonorrhoea .....	7,860
Syphilis .....	281,823
Rh factors .....	13,572
Blood types .....	4,366
Miscellaneous specimens .....	5,261
<b>Total</b> .....	<b>350,289</b>

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

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

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

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

"Blood types" refers to the typing of blood specimens. These tests are performed at the request of physicians interested in the Rh factor determination.

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

Requests for Rh factor determination greatly increased during the year. These determinations were performed on 13,572 bloods. 11,627 were Rh positive; 1,945 were Rh negative. Last year the total was 7,743. Due to lack of funds and personnel these determinations had to be limited to prenatal specimens only.

Tuberculosis culture, which was first instituted during 1948, greatly increased in 1949. Table VII shows the results obtained. Because of the time-consuming procedures necessary in tuberculosis examinations it is estimated that approximately 50% of the working day of the Section on Bacteriology is given to tuberculosis work, which includes an increased number of sputa examinations, culture work with the preparation of culture media and guinea pig inoculations.

TABLE II  
SPECIMENS OF BLOOD AND SPINAL FLUID EXAMINED FOR SYPHILIS  
DURING YEAR ENDING JUNE 30, 1949, BY MONTHS

<i>Month</i>	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
July .....	1,647	535	20,808	563	23,553
August .....	1,779	562	22,459	598	25,398
September .....	1,828	507	24,361	623	27,319
October .....	1,825	538	21,645	408	24,416
November .....	1,699	509	19,995	433	22,636
December .....	1,609	547	17,179	454	19,789
January .....	1,491	524	20,445	426	22,886
February .....	1,511	378	18,162	663	20,714
March .....	2,022	650	19,801	766	23,239
April .....	1,821	412	19,400	700	22,333
May .....	1,879	491	20,569	907	23,846
June .....	1,642	571	22,455	1,026	25,694
	20,753	6,224	247,279	7,567	281,823

This table shows that 7.36% of the total specimens were reported as positive, 2.20% as doubtful, 2.68% as unsatisfactory and 87.74% as negative. These figures show an .86% increase in the number of positive findings, .6% decrease in the doubtfuls reported, .12% decrease in unsatisfactory specimens and a slightly lower percentage of negatives as compared with last year's results. The Mazzini flocculation test is used as a screen test on all specimens. Specimens showing a reaction of positive or doubtful or unsatisfactory are further tested by the Kolmer complement fixation test and the Kahn precipitation test. Where there is insufficient serum for these tests a V.D.R.L. slide test may be used as a check on the original results. The V.D.R.L. test refers to the cardiolipin-lecithin antigen as developed for use at the Venereal Disease Research Laboratory at Staten Island. It is a flocculation test similar to the Mazzini. The results of all tests are then reported to the physician with an interpretation as to positive, doubtful or negative based upon the results of the tests above. Positive and doubtful tests are also reported in degrees of positiveness. The interpretation of "positive" is in no way to be construed as a diagnosis of syphilis in the absence of clinical symptoms of the disease. If the inactive undiluted serum gives a reaction of 3+ or more the Kolmer, Kahn or Mazzini quantitative test is performed at the physician's request.

Table III shows the number of additional tests made on specimens of blood and spinal fluid as well as those for applicants for marriage, required by the New Jersey premarital law, and on expectant mothers, required by the prenatal law. This Table shows, whereas the number of specimens was 281,823 tests in the classification of serology, the actual number of tests performed was

413,392. This figure does not evaluate the many tests done as repeats on the same specimens.

TABLE III

Number of premarital specimens .....	48,678
Number of positive premarital specimens .....	795
Number of prenatal specimens .....	40,770
Number of positive prenatal specimens .....	582
Number of spinal fluid specimens .....	1,520
Number of Mazzini tests .....	271,748
Number of quantitative Mazzini tests .....	564
Number of Kahn tests .....	4,765
Number of quantitative Kahn tests .....	343
Number of V.D.R.L. slide tests .....	12,625
Number of Kolmer tests .....	26,430
Number of quantitative Kolmer tests .....	6,149
Total .....	413,392

The Kolmer quantitative test is made on all spinal fluids, 1,520 for the year. The Section supplies a special container for submitting spinal fluid specimens by mail. The tubes are prepared with a 1:10,000 solution of "MERTHIO-LATE" to act as a preservative. These containers may be obtained in any quantity upon request.

Premarital specimens found positive were 1.63%; prenatal positives were 1.42%.

Premarital certificates were also issued to service men who had their blood tests performed in Army, Navy and other service laboratories. Certificate forms are also furnished to private and local health laboratories throughout the State which have been approved by the State Department of Health to make such tests. These are recognized for marriage only within the State. For the number of such tests performed in municipal, hospital and private laboratories approved by the New Jersey State Department of Health see data at the end of this report.

The New Jersey State Department of Health recognizes, and will accept for marriage licenses, blood tests performed in all State Department of Health laboratories, all service laboratories throughout the United States and the City laboratories of New York, Philadelphia and Baltimore. All State laboratories and the above City laboratories have been furnished with our premarital certificate forms or may obtain them upon request.

#### EVALUATION STUDY

In 1949, the Section on Bacteriology again participated in the evaluation study conducted by the United States Public Health Service for State Department of Health laboratories. The control on the evaluation was performed

by the author of the various standard tests. Results are considered satisfactory by the United States Public Health Service rating when the specificity tests are 99% and the sensitivity tests within 10% of the author's standard. It should be noted that in two out of the three tests the sensitivity results of the Section on Bacteriology were higher than the author control, yet specificity was 100%. Specificity findings of the Section on Bacteriology were also 100% in the third test, as compared with 98.7% for the author.

Following are the very satisfactory results obtained in the Section on Bacteriology on 237 sera tested in the syphilitic group and 149 in the non-syphilitic group:

	<i>Sensitivity</i>	<i>Specificity</i>
Mazzini (flocculation)		
Author control .....	73.3	98.7
Section on Bacteriology .....	72.2	100.0
Kolmer (complement fixation)		
Author control .....	70.9	99.3
Section on Bacteriology .....	74.3	100.0
*V.D.R.L. Slide (flocculation)		
Author control .....	69.2	99.3
Section on Bacteriology .....	73.0	100.0

There were 7,860 smear examinations for gonorrhea made during the year. Twelve per cent, the same percentage as last year, were reported as containing typical intracellular Gram negative diplococci.

TABLE IV  
SPECIMENS EXAMINED FOR NEISSERIA GONORRHEA (PUS SMEARS)  
DURING YEAR ENDING JUNE 30, 1949, BY MONTHS

<i>Month</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
July .....	115	643	11	769
August .....	95	659	26	780
September .....	91	557	17	665
October .....	76	588	27	691
November .....	77	637	21	735
December .....	56	406	12	474
January .....	75	554	21	650
February .....	59	581	12	652
March .....	54	552	18	624
April .....	74	483	14	571
May .....	74	472	18	564
June .....	107	563	15	685
	953	6,695	212	7,860

\* Venereal Disease Research Laboratory with cardiolipin-lecithin antigen.

The number of throat culture specimens examined for *C. diphtheriæ* again decreased this year over those performed the previous year; 4,998 as compared with 5,688. Only 1.8 per cent were found to be positive virulent *C. diphtheriæ*. This figure is a very definite reduction over the previous year when 6.2 per cent were reported as positive. Animal inoculations and biochemical culture reactions were performed on all specimens showing organisms microscopically and morphologically similar to *C. diphtheriæ* before they were reported positive. There were 41 animal inoculation virulence tests performed.

TABLE V  
SPECIMENS EXAMINED FOR *CORYNEBACTERIUM DIPHTHERIÆ* DURING YEAR  
ENDING JUNE 30, 1949, BY MONTHS

<i>Month</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
July .....	3	373	22	398
August .....	3	290	9	302
September .....	3	377	28	408
October .....	3	368	23	394
November .....	..	254	7	261
December .....	2	253	13	268
January .....	2	253	21	276
February .....	3	402	31	436
March .....	23	713	63	799
April .....	14	335	25	374
May .....	25	431	41	497
June .....	8	518	59	585
	89	4,567	342	4,998

Specimens for examination for *M. tuberculosis* again increased this year. There were 1,213 more examinations, last year's figure being 12,978 as compared to 11,909 the previous year and 14,291 for this year. There were 10.6 per cent reported as positive compared with 9.6 per cent last year. Requests for this type of examination have steadily increased over the years. Culture work is also being done as mentioned above, on specimens on which animal inoculation was requested. At the present time routine culture work on all specimens received cannot be attempted.

TABLE VI  
SPECIMENS EXAMINED FOR MYCOBACTERIUM TUBERCULOSIS (SPUTUM) DURING YEAR  
ENDING JUNE 30, 1949, BY MONTHS

<i>Month</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
July .....	115	854	27	996
August .....	87	681	11	779
September .....	153	894	9	1,056
October .....	144	1,012	24	1,180
November .....	105	848	31	984
December .....	170	1,121	28	1,319
January .....	118	1,082	30	1,230
February .....	111	1,141	43	1,295
March .....	126	1,479	34	1,639
April .....	116	1,054	24	1,194
May .....	159	1,086	31	1,276
June .....	114	1,182	47	1,343
	1,518	12,434	339	14,291

Results of animal inoculations and cultures for *M. tuberculosis* are shown in the following table :

TABLE VII (A)  
GUINEA PIG INOCULATIONS FOR MYCOBACTERIUM TUBERCULOSIS

<i>Material</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Sputa .....	12	146	25
Gastric contents .....	8	52	14
Urine .....	12	148	21
Pleural fluid .....	7	37	9
Spinal fluid .....	2	10	1
Cervical abscess .....	1	..	..
Pus from tumor .....	1	..	..
Body fluid .....	..	32	4
	43	425	74
Total—542			

The following table shows the results of culture inoculations for *M. tuberculosis* on Petraghani's and Lowenstein's media :

TABLE VII (B)

Material	Petraghani's			Lowenstein's		Uns.
	Positive	Negative	Uns.	Positive	Negative	
Sputa .....	18	192	3	19	187	2
Gastric contents .....	17	211	4	13	205	4
Spinal fluid .....	1	6	..	1	6	..
Urine .....	3	169	..	4	169	..
Pleural fluid .....	7	40	1	8	40	1
Body fluids .....	..	22	1	..	22	1
Cervical abscess .....	1	..	..	1	..	..
Tumor on cheek .....	1	..	..	1	..	..
	<hr/> 48	<hr/> 640	<hr/> 9	<hr/> 47	<hr/> 629	<hr/> 8

Blood agglutination tests are performed for typhoid O and H antigens, paratyphoid A and B, undulant fever, tularemia and the Weil-Felix reaction for typhus and Rocky Mountain spotted fever. The laboratory prepared its own antigens for these tests and used both OX19 and OX 2 for the Weil-Felix reaction. There was an increase in the number of blood agglutination tests requested during the year; 7,435 this year as compared with 6,578 last year.

TABLE VIII

BLOOD AGGLUTINATION TESTS DURING YEAR ENDING JUNE 30, 1949

	Positive	Negative	Unsatisfactory	Total
Typhoid fever .....	36	2,349	67	2,452
Paratyphoid fever .....	19	1,568	25	1,612
Undulant fever .....	78	3,013	62	3,153
Rocky Mountain spotted and typhus fevers	7	145	8	160
Tularemia .....	..	58	..	58
	<hr/> 140	<hr/> 7,133	<hr/> 162	<hr/> 7,435

Cultural examinations (feces and urine) for enteric pathogens very closely approximated the number of examinations made last year. This work includes the more complete identification of the Salmonellas into their respective groups. Results of specimens are reported to the physician and culture of the Salmonella organisms sent to the Salmonella Typing Center at Communicable Disease Center, Atlanta, Georgia. Cultures so identified are as follows:

S. derby .....	3
S. manhattan .....	1
S. montevideo .....	2
S. newport .....	1
S. oranienburg .....	2
S. oregon .....	1
S. typhimurium .....	1

TABLE IX

SPECIMENS OF FECES AND URINE EXAMINED FOR ENTERIC PATHOGENS DURING YEAR  
ENDING JUNE 30, 1949

	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total</i>
Eberthella typhosa .....	42	3,281	167	3,490
Salmonellas .....	31	3,291	168	3,490
Shigellas .....	..	3,323	167	3,490
No examination .....	..	....	213	213
	<hr/>	<hr/>	<hr/>	<hr/>
	73	9,895	715	10,683

Specimens listed as miscellaneous also increased during the year. Most of this increase is shown in the category of bacterial infection where the physician has requested the laboratory to identify the organisms found in the particular specimen submitted. Worthy of mention is the great decrease in positive malarial specimens during the years since the war; one positive specimen this year as compared with 61 in 1946 and 42 in 1947.

TABLE X

MISCELLANEOUS SPECIMENS EXAMINED DURING YEAR ENDING JUNE 30, 1949

	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Rabies .....	87	289	19
Anthrax .....	..	1	..
B. abortus .....	..	3	1
Bacterial infection (blood, body fluids, pus, sputum, etc.) .....	444	47	22
Globulin .....	3	52	..
Gonococcus infection (eye smears) .....	1	74	..
Hemolytic streptococci .....	228	544	..
Infectious mononucleosis .....	115	555	11
Malaria .....	1	55	1
Occult blood .....	3	6	1
Ova and parasites .....	23	775	12
H. pertussis .....	1	1	..
Pneumonia .....	..	8	..
Treponema pallida .....	..	1	1
B. tularensis .....	..	1	..
M. tuberculosis (body fluids, feces, pus, urine, etc.) .....	103	1,036	15
Vincent's angina .....	58	415	4
Special examination of eating utensils .....	24	103	..
Other unusual examinations .....	65	46	6
	<hr/>	<hr/>	<hr/>
Total .....	1,156	4,012	93
Grand total .....	5,261		

TABLE XI

RABIES SPECIMENS (SPECIES OF ANIMALS) EXAMINED DURING YEAR ENDING  
JUNE 30, 1949

Dogs .....	Positive, 84; negative, 237; unsatisfactory, 16.
Cats .....	Positive, 2; negative, 43; unsatisfactory, 2.
Cows .....	Negative, 2.
Skunks .....	Positive, 1; negative, 1.
Squirrels .....	Negative, 1; unsatisfactory, 1.
Rats .....	Negative, 2.
Rabbits .....	Negative, 1.
Foxes .....	Negative, 1.
Moles .....	Negative, 1.

YEARLY TOTALS OF ANIMALS EXAMINED FOR RABIES FROM 1942 TO 1949, INCLUSIVE

	1942	1943	1944	1945	1946	1947	1948	1949
Positive .....	45	8	8	12	60	114	62	87
Negative .....	129	103	90	104	94	237	294	289
Unsatisfactory .....	17	15	7	18	8	28	10	19
Total .....	191	126	105	134	162	379	366	395

MUNICIPALITIES, ARRANGED BY COUNTIES, FROM WHICH RABID ANIMALS WERE  
RECEIVED DURING YEAR ENDING JUNE 30, 1949

Hunterdon County—	Lebanon, 2; Ringoes, 1; Sergeantsville, 1.
Mercer County—	Hightstown, 4; Hopewell, 1; Princeton, 1; Robbinsville, 1 Titusville, 1; Trenton, 1.
Middlesex County—	Highland Park, 1; Jamesburg, 5; New Brunswick, 17; South Plainfield, 1; South River, 1; Woodbridge, 6.
Monmouth County—	Englishtown, 1; Freehold, 11.
Ocean County—	Lakewood, 1.
Somerset County—	Basking Ridge, 1; Middlebush, 1; North Plainfield, 1; Somerville, 9.
Union County—	Elizabeth, 2; Linden, 3; Plainfield, 2; Rahway, 4; Westfield, 7.

Where no evidence of rabies is found in the nerve cells of the brain on microscopic examination, and the animal has bitten or exposed a human being, Swiss mice are inoculated intradurally and kept under observation for three to four weeks. The following table shows the source of material inoculated into Swiss mice:

TABLE XII  
MICE INOCULATIONS FOR RABIES

<i>Material</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Dog brain .....	5	168	..
Cat brain .....	..	34	..
Squirrel brain .....	..	5	..
Rat brain .....	..	2	..
Calf brain .....	..	1	..
Cow brain .....	..	1	..
Mole brain .....	..	1	..
Rabbit brain .....	..	1	..
Fox brain .....	..	1	..
Chipmunk brain .....	..	1	..
	5	215	0

MAILING CASES FOR THE COLLECTION AND TRANSMISSION OF SPECIMENS SUPPLIED TO  
PHYSICIANS AND LOCAL HEALTH DEPARTMENTS THROUGHOUT THE  
STATE DURING YEAR ENDING JUNE 30, 1949

Diphtheria mailing cases .....	5,245
Tuberculosis mailing cases .....	16,309
Typhoid fever mailing cases .....	544
Malaria mailing cases .....	91
Gonorrhoea mailing cases .....	9,819
Feces and urine mailing cases .....	4,889
Syphilis mailing cases .....	288,159
Ophthalmia neonatorum mailing cases .....	9
Total .....	325,065

The Section on Bacteriology supplies media to other Sections in the Bureau and local and private laboratories throughout the State. The Section prepared and supplied 2,349,300 c.c. of various kinds of media during the fiscal year.

The New Jersey Laws of 1938, Chapter 126, state that blood tests for pre-marital serology shall be made in a laboratory approved by the Director of Health. (R. S. 37:1-23).

The New Jersey Laws of 1938, Chapter 41, state that blood tests for prenatal serology shall be made in a laboratory approved by the Director of Health.

Chapter VI, Reg. 12, of the Sanitary Code, states that cultures made for release from quarantine for diphtheria shall be made in a laboratory approved by the Director of Health.

Chapter VI, Reg. 34a, states that cultures taken for release from quarantine for typhoid fever shall be made in a laboratory approved by the Director of Health.

Rules and regulations have been incorporated for such laboratory approval in the Sanitary Code, Chapter VI, Reg. 41. There are 101 such approved laboratories in New Jersey. These laboratories consist of one State laboratory, one United States laboratory, 13 municipal or county laboratories, 49 hospital laboratories and 37 private laboratories. These laboratories were all visited during the last fiscal year by a representative of the Section on Bacteriology. From 25 to 100 check specimens were submitted to each laboratory and results compared with the findings of the Section on Bacteriology, the Venereal Disease Research Laboratory at Staten Island and the United States Public Health Service, Communicable Disease Center, at Atlanta, Georgia. There were 2,725 check specimens submitted during the year. The approved laboratories of the State, other than the Section on Bacteriology and the one United States laboratory mentioned above, examined a total of 541,489 specimens during the last fiscal year, divided as follows:

SYPHILIS			
	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	15,097	3,584	249,008
Hospital laboratories .....	7,112	1,802	124,876
Private laboratories .....	370	64	17,485
	<hr/> 22,579	<hr/> 5,450	<hr/> 391,369

In the above classification the number of premarital and prenatal examinations and results are as follows:

PREMARITAL			
	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	663	558	45,394
Hospital laboratories .....	65	58	6,201
Private laboratories .....	71	12	6,229
	<hr/> 799	<hr/> 628	<hr/> 57,824

PRENATAL			
	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	311	134	26,807
Hospital laboratories .....	426	198	19,206
Private laboratories .....	16	3	4,256
	<hr/> 753	<hr/> 335	<hr/> 50,269

## EXAMINATIONS FOR DIPHTHERIA

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	163	12	6,569
Hospital laboratories .....	182	35	9,077
Private laboratories .....	15	4	524
	<hr/>	<hr/>	<hr/>
	360	51	16,170

## EXAMINATIONS FOR ENTERIC PATHOGENS

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	47	3	898
Hospital laboratories .....	221	16	6,315
Private laboratories .....	19	6	927
	<hr/>	<hr/>	<hr/>
	287	25	8,140

## EXAMINATIONS FOR TUBERCULOSIS (SMEARS)

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	960	..	18,334
Hospital laboratories .....	4,003	10	34,068
Private laboratories .....	76	3	717
	<hr/>	<hr/>	<hr/>
	5,039	13	53,119

## EXAMINATIONS FOR TUBERCULOSIS (CULTURES)

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	8	..	20
Hospital laboratories .....	263	6	22,335
Private laboratories .....	9	..	113
	<hr/>	<hr/>	<hr/>
	280	6	22,468

## EXAMINATIONS FOR GONORRHEA (SMEARS)

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	3,599	223	31,587
Hospital laboratories .....	1,114	261	12,356
Private laboratories .....	216	53	1,447
	<hr/>	<hr/>	<hr/>
	4,929	537	45,390

## EXAMINATIONS FOR GONORRHEA (CULTURES)

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Municipal laboratories .....	181	..	924
Hospital laboratories .....	331	1	3,787
Private laboratories .....	12	1	122
	<hr/>	<hr/>	<hr/>
	424	2	4,833

TOTAL NUMBER OF EXAMINATIONS	
State laboratory .....	350,289
Municipal laboratories .....	307,340
	<hr/>
Total—N. J. public health laboratories .....	657,629
	<hr/>
Hospital laboratories .....	212,814
Private laboratories .....	21,335

During the year, at the special request of Dr. Bergsma, State Commissioner of Health, the Section was able to obtain an adequate water supply with adequate pressure. A new two-inch pipe line was installed direct to the fourth floor. We are happy to state that this remedied one of the outstanding needs as outlined in the last annual report.

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### Section on Chemistry

The Section on Chemistry makes chemical, bacteriological, microscopical and toxicological examinations of samples of food, drugs, water, sewage and trade wastes collected by the Department's representatives in the enforcement of the public health laws of New Jersey. Studies of health hazards within industrial plants are made in co-operation with the engineering personnel of the Section on Adult and Industrial Health, and samples of dust and possible air pollutions are collected and analyzed to assist in safeguarding the health of the workers. The facilities of the laboratory are also extended to local boards of health, State Department of Education, Department of the Treasury, Department of Law and Public Safety, State Department of Agriculture, State Department of Institutions and Agencies, and State Department of Conservation and Economic Development. Analyses are also made of various samples of foods and supplies purchased under specifications for institutional use; rural school waters submitted by local boards of education; drinking water, lakes and streams from camps maintained by benevolent associations and other miscellaneous samples.

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

The following bacterial standards for milk, cream and milk products were adopted by the State Department of Health on April 20, 1949:

## BACTERIAL STANDARDS—AGAR PLATE

## Milk, Skim or Whole

	<i>Maximum Permissible Number of Bacteria per c.c.</i>
<i>Raw</i>	
(a) blended or individual bulk can sample taken at receiving station or at source of production .....	150,000
(b) from any consumer package prepared by producer or distributor	150,000
(c) sampled after processing .....	400,000
<i>Pasteurized</i>	
(d) sampled either in bulk or consumer package .....	30,000

## Cream

	<i>Maximum Permissible Number of Bacteria per c.c.</i>
<i>Raw</i>	
(a) sampled after processing at the plant where separation occurs ..	250,000
(b) sampled after separation and shipment either in cans or by rail tank car or by tank truck to pasteurizing plant .....	500,000
<i>Pasteurized</i>	
(c) sampled either in bulk or consumer package .....	100,000
Ice Cream, Ice Cream Mix, Frozen Custard, Sherberts and Ices	
(a) sampled after processing and production and released as finished product .....	100,000

Field inspection service was immediately instituted by the Section on Food and Drugs, and approximately 600 samples were submitted to the laboratory for bacteriological examination during the last two months of the fiscal year. It is anticipated that when this program becomes fully operative, between 5,000 and 6,000 bacteriological milk and cream samples will be examined yearly to assist in the enforcement of the newly adopted standards. This additional laboratory work was undertaken without employment of extra technical help, but if the number of samples submitted increases appreciably over the above estimate, the employment of one additional laboratory technician will be necessary.

Of the 2,324 chemical milk samples examined, 2.66% were found to be below standard, compared with 3.1% of last year.

About 98% of the milk sold in the State of New Jersey is pasteurized and the consumer is furnished a safe food, provided the pasteurization is properly done. The phosphatase test is a very accurate chemical method which determines this readily. When a community's milk supply is sampled this specific test will sort out those pasteurization plants not properly processing the milk

and permit the field personnel to concentrate upon them. Thus a valuable laboratory aid permits an inspection service to work at maximum efficiency. Of the 676 samples examined, 56 or 8.2% were not satisfactorily pasteurized.

One often wonders what would be the amount of sophistication of foods sold to the public if State and Federal agencies did not exercise supervision to prevent adulteration. For instance, take the product horseradish. During the past year, 56 samples, representing all the brands of grated horseradish sold in New Jersey were examined and 20, or 36%, were found to be concoctions of parsnips, turnips and mustard oil—often containing little or no horseradish. A nice profit was reaped by those unscrupulous food processors when one considers the great difference in market price between horseradish and parsnips. One could go on naming many food products where sophistication has been broken up as a result of concentrated drives by food and drug officials. A typical example is in the field of mayonnaise and salad dressings. The former practice of using mineral oils as a substitute for olive, cottonseed and other oils has now been discontinued as a result of such activities.

The tomato crop this year was small, and the quality very poor, due to blight and excessive rains. As a consequence the laboratory examination of 179 samples of tomato products, submitted as a result of visits to canning houses, showed 68 or 38% to be below standard. This laboratory service is of great aid to the food inspection personnel, as it gives them a check on factory operations and enables them to concentrate on plants turning out an undesirable food product, even though at the time of the inspection the cannery might be properly sorting the product before processing.

Good manufacturing practice does not require the addition of any chemical or preservative to soft drinks. Monochloroacetic acid, a poisonous chemical, is frequently added to flavoring concentrates as a bactericide by the manufacturer. When shipped to a local bottler, and the product carbonated, the latter is unaware that he is turning out a chemically preserved soft drink. During the past year, 73 of said concentrates were examined, of which 15, or 20% were found to contain monochloroacetic acid. Of all the fruit concentrates, the adulteration was most common in the "orange" variety. This preservative is sometimes used in beer and wine (alcoholic and sacramental) but in 14 samples of wine examined, monochloroacetic acid was found to be present in one sample only. Very few fruit concentrates are manufactured in the State of New Jersey, and those adulterated with monochloroacetic acid, having been shipped in interstate commerce, are in violation of the Federal food and drug act. Our findings were referred to that Federal agency for proper action.

Last year a number of examinations were made of factory-prepared mixtures for piecrusts, cakes, muffins and biscuits, and a large percentage of the samples assayed showed the presence of filth and/or insect infestation. During the past fiscal year this microbiological examination was extended to the

field of nuts, shelled and unshelled, and raisins. Of the 97 samples examined, 44 or 45% were found to be unfit for food, as they were rotten, wormy and/or insect infested. Such violations mostly fell within the province of the Federal food and drug agency, as they generally involved interstate shipments.

There were 16,126 samples of food, drugs, water, sewage and miscellaneous preparations examined during the past year, and the attached tabulations show in detail the number and nature of such analyses.

NUMBER AND CHARACTER OF SAMPLES EXAMINED IN FOOD AND DRUG LABORATORY  
JULY 1, 1948, TO JUNE 30, 1949

<i>Foods</i>	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>
Milk—chemical .....	2,262	62	2,324
Milk—bacteriological .....	621	89	710
Milk—phosphatase .....	620	56	676
Goat's milk—chemical .....	3	0	3
Chocolate milk—chemical .....	64	1	65
Chocolate milk—phosphatase .....	1	0	1
Cream—sweet—chemical .....	64	5	69
Cream—sweet—phosphatase .....	22	0	22
Ice cream .....	310	24	334
Oleomargarine .....	4	0	4
Butter .....	122	15	137
Candies .....	75	20	95
Sherberts .....	2	6	8
Carbonated beverages .....	243	12	255
Cranberry sauce .....	3	0	3
Tomato products .....	111	68	179
Apples, apple products .....	10	1	11
Ground beef .....	50	0	50
Mayonnaise .....	14	0	14
Vegetable and salad oils .....	7	0	7
Olive oil .....	48	1	49
Flour .....	0	4	4
Bakery products .....	16	1	17
Chestnuts .....	13	21	34
Nuts .....	3	19	22
Canned asparagus .....	4	14	18
Canned blueberries .....	29	0	29
Horseradish .....	36	20	56
Flavoring extract .....	95	0	95
Raisins .....	37	4	41
Fruit concentrates .....	58	15	73
Wines .....	13	1	14
Miscellaneous food samples .....	12	4	16
<b>Total food samples .....</b>	<b>4,972</b>	<b>463</b>	<b>5,435</b>
<i>Drugs</i>			
Extract of witch hazel .....	82	0	82
Lime water .....	47	2	49
Citrate of Magnesia .....	92	1	93
Daisy wash waters .....	3	0	3
Burrows solution .....	58	5	63
Codliver oil emulsion .....	7	0	7
Tincture of iodine .....	44	14	58
Distilled water .....	41	4	45
Blue ointment .....	27	0	27
Argyrol .....	41	2	43
Zinc ointment .....	38	0	38
Alcohol .....	0	1	1
<b>Total drug samples .....</b>	<b>480</b>	<b>29</b>	<b>509</b>
Thermometers standardized .....	42	..	42
Urinalyses .....	63	..	63
Blood counts .....	59	..	59
Stippled cell counts .....	2	..	2
Carbonated beverages—experimental .....	42	..	42
Milk—experimental .....	88	..	88
<b>Total .....</b>	<b>5,748</b>	<b>492</b>	<b>6,240</b>

SAMPLES ANALYZED IN WATER AND SEWAGE LABORATORY—JULY 1, 1948-JUNE 30, 1949

<i>Months</i>	Public Water Supplies	Pay Samples	Miscellaneous Samples	Camp Samples	State and County Institution Samples	Dairy Samples	Bottled Water Samples	School Supplies	Bathing Waters and Swimming Pools	Stream Samples	Sewage Samples	Trade Waste	Surf Samples	Sand Samples	Experimental Samples	Total
1948																
July .....	404	33	100	107	15	9	6	4	24	139	65	12	158	0	98	1,174
August .....	559	25	123	14	18	1	8	11	17	35	12	9	0	0	27	859
September .....	362	24	62	0	13	4	0	94	1	52	81	44	0	0	52	789
October .....	414	16	94	0	19	1	16	62	1	24	40	14	0	0	20	721
November .....	432	35	96	1	7	3	8	110	1	2	0	3	0	0	24	722
December .....	330	25	63	0	10	2	7	83	1	76	16	14	0	0	102	729
1949																
January .....	233	104	88	0	14	0	0	130	1	41	10	25	0	0	126	772
February .....	276	55	83	0	9	4	8	150	1	76	12	7	0	0	46	727
March .....	338	84	81	0	9	6	14	107	0	34	36	8	0	0	87	804
April .....	288	103	83	2	17	12	0	82	1	52	23	6	0	0	8	677
May .....	258	48	136	3	9	7	26	82	3	25	92	22	162	1	50	924
June .....	371	11	153	23	24	1	26	12	18	75	62	11	189	0	12	988
Totals .....	4,265	563	1,162	150	164	50	119	927	69	631	449	175	509	1	652	9,886

### Section on Pathology

The Section on Pathology was set up to develop a plan for consultant work with pathologists and maintain a tumor registry to do photographic work in connection with the Section on Cancer Control, and to prepare various exhibits on the diagnosis of cancer.

Kodachromes in 2 x 2 or 2¼ x 3¼ mounts were prepared from 398 cases. Some of these Kodachromes were of the gross lesions and others were photomicrographs, making a total of 818 available.

<i>Size</i>	<i>Clinical</i>	<i>Gross</i>	<i>Microscopic</i>
2 x 2	207	77	189
3¼ x 4	79	112	154

The Section prepared 954 microscopic slides. Of these, 20 sets of 10 slides and 25 sets of 25 slides have been prepared for educational exhibits for pathologists.

**Report of the Bureau of Local Health Services**

July 1, 1948—June 30, 1949

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WILLIAM H. MACDONALD, *Assistant Director*



## Bureau of Local Health Services

During the fiscal year ending June 30, 1949, the scope of functions of the Bureau was materially changed. The personnel of the Bureau was reduced by resignations and transfers.

The distribution of biologics was transferred from the Bureau with two employees on August 15, 1948. The records of reports of communicable diseases and activities in relation to the collection, processing and tabulation of such records, along with three employees were transferred from the Bureau in May, 1949. Activities in the Central Office relating to the follow-up of tuberculosis suspects found in X-ray screening examinations were also transferred late in the year. One of the eight positions of District Health Officers became vacant by death; another District Health Officer, together with an office worker, was assigned duties in another Bureau. Two positions of sanitarian in District Health Offices were vacated during the year, one by death, and one as a result of resignation.

Plans were made for the reorganization of the Bureau with three sections; i.e., Section on Grants-in-Aid, Evaluation and Surveys, and State Health Districts.

In reviewing the work of the Bureau operating upon the pre-reorganization basis, comment might first be made regarding communicable diseases. Figures given below on this subject, unless otherwise stated, relate to the calendar year ending December 31, 1948.

### REPORTABLE DISEASES FOR 1948

During the calendar year of 1948, local boards of health reported to the New Jersey State Department of Health 118,453 cases of the 39 diseases declared reportable in Regulation I, Chapter VI of the State Sanitary Code (Table V). This figure is considerably higher than the 1947 total of 78,639 cases; however, the increase is chiefly due to the high prevalence of measles and mumps in 1948. The so-called children's diseases: chickenpox, measles, German measles, mumps and whooping cough accounted for 107,951 or 91% of the cases of all diseases reported in 1948 (Table I).

Diphtheria cases decreased from 208 in 1947 to 119 in 1948. The latter figure is the lowest ever recorded in New Jersey. Only four deaths were recorded, which likewise is a new low record.

Measles reports increased from 12,209 in 1947 to 42,960 in 1948. Deaths also increased from four in 1947 to 17 in 1948.

Meningitis (epidemic cerebrospinal) reports numbered 97 in 1948 against 101 in 1947. Deaths decreased from 33 in 1947 to 22 in 1948.

Poliomyelitis (acute anterior) reports increased from 296 in 1947 to 809 in 1948. Except for the years 1916, 1931 and 1945, the 1948 figure has not been exceeded since the disease was first declared reportable in 1911. The superiority of one number over another, however, cannot be used as a definite index of the prevalence of the disease. There can be little doubt that almost all of the cases reported prior to the early 1930's were paralytic in nature. Hundreds of non-paralytic cases occurring in those years were not recognized and consequently not reported. Forty-four deaths were recorded in 1948.

Scarlet fever reports established a new low figure for New Jersey with 2,500 cases recorded. The figure for 1947 was 3,474. Only two deaths in 1948 were recorded.

Tuberculosis reports also dropped to a new low figure of 3,141 in 1948. For the previous year, the total of new cases reported was 3,161. The number of recorded deaths in 1948, 1,388, also set a new low record.

Typhoid fever reports decreased from 45 cases in 1947 to 34 in 1948. The latter figure is the lowest on record.

Whooping cough reports declined from 8,321 in 1947 to 2,704 in 1948. This is the lowest figure recorded since the disease was made reportable in 1918. Deaths dropped from 24 in 1947 to a new low figure of 6 in 1948.

#### ANTHRAX

Sixteen cases with no fatalities were reported in 1948. Fifteen of the cases were persons employed in carpet and rug factories and one was an employee of a leather processing plant.

#### MALARIA

Malaria reports decreased from 99 in 1947 to 36 in 1948. One death was recorded; the decedent was an army veteran. Of the 36 reported cases, 23 were reported by military establishments within the State; all these cases are believed to have been infected outside of New Jersey. Analysis of the histories of the remaining 13 cases in civilians shows that six of them were infected while in military or naval service, five were civilians who acquired infection in foreign lands, and one was apparently infected through blood transfusions from his malaria-infected son. In only the one remaining case does it appear that infection is likely to have been acquired through mosquitoes in New Jersey. This case occurred in Camden County. In 11 of the 13 cases reported outside of military establishments, diagnosis was confirmed by laboratory examination and in each instance found to be the tertian type.

The Department continued to advise mosquito control officials of the location of reported cases of malaria to enable them to advance measures to prevent the spread of infection through mosquitoes. A table showing the malaria record for the war and post-war years follows:

## MALARIA IN NEW JERSEY—1941-1948

Year	Total No. Reported Cases	No. Cases in military Personnel	No. Cases in Civilians	Probable Place of Infection for Civilian Cases		
				Out-of-State	New Jersey	Doubtful
1941 ....	13	0	13	13	0	0
1942 ....	20	4	16	9	7	0
1943 ....	20	16	4	3	0	1
1944 ....	826	788	38	32	5	1
1945 ....	1,412	1,397	15	10	5†	0
1946 ....	931	917	14	8	5*	1
1947 ....	99	49	50	48	2	0
1948 ....	36	23	13	11	2*	0
Totals	3,357	3,194	163	134	26	3

## ROCKY MOUNTAIN SPOTTED FEVER

Twelve cases with no fatality were reported in 1948. This is the lowest number reported since 1941. The 1948 cases were distributed by counties as follows: Atlantic, Burlington, Camden, and Cumberland, one each; Middlesex, Monmouth, Ocean and Salem, two each. The Department distributed to physicians upon request vaccine for protective inoculation. The vaccine was furnished by the U. S. Public Health Service.

## TRICHINOSIS

In 1948 there were 28 cases reported with no death. The largest single group of cases in 1948 was five, all in one family. In four instances two cases occurred in a single household.

## TULAREMIA

Only one case was reported in 1948. The patient gave a history of having skinned Australian rabbits at a packing house.

† Two of these cases infected through blood transfusion.

\* One of these cases infected through blood transfusion.

## RABIES IN HUMANS

One fatal case of rabies in a human was recorded. This person was an adult male, employed as a plumber. He was bitten on the thumb on January 15 by a dog which was not then known to be rabid. He refused antirabic treatment until after the dog died. Treatment was commenced on January 23 and completed on February 3. It was evidently too late to be effective and the patient died on February 7.

## UNDULANT FEVER

Case reports increased from 45 in 1947 to 49 in 1948. One death was recorded in 1947, none in 1948. There were four counties in which no case was reported in 1948; Atlantic, Camden, Cape May and Monmouth. The counties with the highest number of cases were Essex with 15 and Morris with six.

As usual, histories of all reported cases were obtained by the Department's District Health Officers or by local health officers. A study of the histories showed that 11 of the patients had been regular users of raw milk before illness; 10 had used pasteurized milk regularly and raw milk occasionally; 25 gave no history of the use of milk other than pasteurized but three of these were recorded as having been involved in butchering hogs and cows. In three cases no definite data as to the use of milk was obtained but one of these persons was a butcher at a packing house and one was a chronic case not previously reported. Of the 46 cases for which information as to the use of milk was available, raw milk was a factor in 21, or 45%. Nine of the 46 cases reported were in persons whose occupation may have afforded them an opportunity to acquire infection. They were: farm workers 5, milk handlers 2, and meat handlers 2.

## DAIRY PREMISES

During the fiscal year ending June 30, 1948, only three reports of the communicable diseases reportable on dairy premises were received by the Department—a case of diphtheria on each of two dairies and a case of scarlet fever on another dairy. In one instance it was necessary to prohibit temporarily the sale of milk. In the other two instances satisfactory precautionary measures were arranged by district health officers so that it was not necessary to stop the sale of milk.

## TYPHOID CARRIERS

At the close of the fiscal year, 86 persons were recorded in the files of the Department as carriers of typhoid bacilli; four were withdrawn from the list during the year, three by death and one by removal from the State. Two

persons were added to the list of carriers; one was a known carrier who moved into New Jersey from another State and the other was discovered as a result of routine examination of food handlers.

#### INVESTIGATION OF COMMUNICABLE DISEASES

During the year ending June 30, 1949, employees of the Bureau investigated 438 cases of communicable diseases, exclusive of tuberculosis and venereal diseases. These cases were distributed by diseases as follows: Chickenpox 151; Diphtheria 37; Dysentery, amœbic 1, bacillary 2; Malaria 3; Measles 12; Meningitis, epidemic cerebrospinal 8; Paratyphoid fever 8; Poliomyelitis 120; Rocky Mountain spotted fever 8; Scarlet fever 3; Trichinosis 2; Tularemia 1; Typhoid fever 22; Undulant fever 31; and Whooping Cough 29.

Prior to the transfer of the follow-up activities on suspected cases of tuberculosis screened out in mass chest X-ray surveys, and the follow-up of cases and familial contacts in families reported by Hospitals for Veterans, the Bureau performed this function. In May, 1949, however, this function and all records of the year's work were transferred to the new Bureau of Preventable Diseases. Thereafter, District Health Offices in the Bureau of Local Health Services continued to aid materially in arrangements for local follow-up of cases and contacts; however, reports and records were all forwarded to the Preventable Disease Bureau.

Venereal disease case and contact follow-up was carried on actively from the District Health Offices at Mt. Holly and Mays Landing by personnel assigned the Bureau. At the Mays Landing District Health Office this work, as well as work in tuberculosis control, was greatly augmented by public health nurses employed by the County of Atlantic and assigned to work in the field of communicable disease control from the District Health Office and under the direction of the District Health Officer.

District Health Officers were also active in encouraging groups of local boards of health in continuing to support venereal disease clinics in Atlantic, Burlington, Cape May, Gloucester, Monmouth, Morris and Warren Counties, where the continuance of such clinics seemed advisable.

#### CAMP INSPECTIONS

Inspection of the 160 recreation camps located in all parts of the State was continued as in previous years. Certificates of approval were issued to camps in which basic sanitary conditions were considered satisfactory. In other camps, through advice and reinspection, definite improvement in sanitation was effected.

## INSPECTION OF FOOD-VENDING PLACES

Food-vending establishments near army reservations and in rural areas, particularly along main highways, were inspected by employees assigned the Bureau to the extent practicable with the reduced personnel. Such inspections were made at 834 establishments at which 2,008 reinspections were made.

## RODENT AND INSECT CONTROL

The limited amount of work previously carried on in this field was expanded in some degree. Special conferences in some instances were held in the field with individual health officers at their request for advice on rat control. Prominent part was taken in three two-day Institutes on rodent control: one in Jersey City, open to employees of all local health departments in Hudson County; one in Newark for employees of the Health Department of that city; and one in Bloomfield, open to employees of local health departments of Essex County and to health officials in Union County. Attendance at these Institutes totaled 170.

Part was also taken in a two-day Institute on refuse and garbage disposal held in Newark and at which 45 persons attended, including municipal engineers, public health officials and persons in charge of garbage collection and disposal in municipalities in the northern metropolitan section of the State.

## LOCAL BOARDS OF HEALTH

As is customary, each local board of health was provided with a blank for use in preparing for the New Jersey State Department of Health a report for the calendar year 1948. The blank furnished for the 1948 reports was not as extensive as that used in 1947 but it did provide for considerable data regarding finances, personnel, communicable disease control, maternal and child health service, public health nursing, sanitation and animal rabies control.

Annual reports for 1948 were received from 565 of the 566 local boards of health in the State. In addition, reports were received from two camp meeting associations and from Palisades Interstate Park which have health departments practically equivalent to local boards of health. Information as to the receipts and expenditures of the one local board which failed to file a report was available from another source so the financial figures given below are complete for all local units.

The total amount of money available to the 569 health units for all purposes in 1948 was \$4,688,514.21, an increase of \$370,417.00 over the 1947 figure. In a few instances appropriations for local boards of health include funds for contagious disease hospitals and for garbage and refuse collection

and disposal. If the sums reported as spent for these special purposes are excluded, there remained \$4,356,278.10 available in 1948 for the use of local health units. This is equivalent to 92 cents per capita based on an estimated State population of 4,729,000. This is one cent more per capita than the 1947 figure.

The total amount reported as expended by local health units in 1948, less that spent for hospitals and for garbage and refuse disposal was \$4,190,327.66, or 89 cents per capita. This is three cents higher than the per capita figure for 1947. The per capita amounts expended by all local health departments in the various counties ranged from about \$2.00 in Essex to about eleven cents in Warren. Essex County was the only one for which the figure exceeded \$1.00 per capita. There were nine counties in which the total reported expenditures of all the local health boards ranged from 50 cents to \$1.00 per capita. In eleven counties the total expenditures of the local health boards were less than 50 cents per capita. These eleven were Burlington, Camden, Cumberland, Gloucester, Hunterdon, Monmouth, Ocean, Salem, Somerset, Sussex and Warren.

Fourteen municipalities in the State each had an estimated population of 50,000 or over. The boards of health in these municipalities reported for 1948 a total expenditure, less the amount spent for hospitals, garbage and refuse removal, of \$2,624,565.81, or approximately \$1.44 per capita. This represents an increase of 9 cents per capita over the 1947 figure for these 14 places. The remaining 555 local health departments reported expenditures in 1948 of \$1,565,761.79, or almost 54 cents per capita. In 1947 the corresponding figure was 53 cents.

Data contained in the annual reports showed that, at the close of the year 1948, there were in the State 54 full-time licensed health officers serving 78 municipalities and that there were 62 part-time licensed health officers serving 83 municipalities.

Local boards of health also reported the employment during 1948 of 308 licensed sanitary, food and drug or special food inspectors, and 158 licensed plumbing inspectors.

## SUMMARY OF OTHER WORK OF THE BUREAU

Certain activities of employees assigned to the Bureau and not otherwise reported above are summarized as follows:

1. Number of conferences with local health officials on questions pertaining to public health .....	6,103
2. Number of conferences with persons other than local health officials ..	9,155
3. Number of meetings of local boards of health attended .....	64
4. Attendance at other meetings .....	428
5. Number of lectures given in courses for health officials .....	55
6. Number of other talks or lectures given or papers read .....	55
7. Number of specimens collected from humans either by employees of the Bureau or with their aid to be examined for pathogenic bacteria ..	65
8. Number of water samples collected for laboratory examination .....	709
9. Number of other specimens and samples collected for laboratory examination .....	130
10. Number of special investigations, included alleged nuisances, insanitary conditions, etc. ....	1,312

TABLE I

## REPORTED CASES AND DEATHS; CASE, DEATH AND CASE FATALITY RATES FOR CERTAIN REPORTABLE DISEASES FOR 1948

DISEASE	Cases	*Cases per 100,000 Population	Deaths	*Deaths per 100,000 Population	Per Cent Fatality
Chickenpox .....	27,980	589.8	1	†0.1	†0.1
Diphtheria .....	119	2.5	4	0.1	3.4
German measles .....	2,014	42.6	0	0.0	0.0
Influenza .....	205	4.3	40	0.8	19.5
Measles .....	42,960	908.4	17	0.4	†0.1
Meningitis, epidemic cerebrospinal ....	97	2.1	22	0.5	22.7
Mumps .....	32,293	682.9	2	†0.1	†0.1
Pneumonia .....	3,095	65.4	1,278	27.0	41.3
Poliomyelitis, acute anterior .....	809	17.1	44	0.9	5.4
Rocky Mountain spotted fever .....	12	0.3	0	0.0	0.0
Scarlet fever .....	2,500	52.9	2	†0.1	0.1
Tuberculosis .....	3,141	66.4	1,388	29.4	44.2
Typhoid fever .....	34	0.7	7	0.1	20.6
Whooping cough .....	2,704	57.2	6	0.1	0.2

\* Rates figured on an estimated population of 4,729,000.  
Note: †0.1 indicates less than one-tenth of one per cent.

TABLE II

## CASES AND DEATHS FROM OTHER REPORTABLE DISEASES FOR 1948

DISEASE	Cases	Deaths	DISEASE	Cases	Deaths
Anthrax .....	16	0	Psittacosis .....	1	0
Botulism .....	3	2	Rabies in human .....	1	1
Dysentery, amoebic .....	59	1	Smallpox .....	0	0
Bacillary .....	4	0	Tetanus .....	10	8
Unspecified .....	3	1	Trachoma .....	0	1
Encephalitis, lethargic .....	3	16	Trichinosis .....	28	0
Food poisoning .....	116	0	Tularemia .....	1	0
Infectious diarrhea of newborn .....	4	2	Typhus fever .....	1	0
Malaria .....	36	1	Undulant fever .....	49	0
Ophthalmia neonatorum .....	5	0			
Paratyphoid fever .....	2	0			

TABLE III  
 REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1948

COUNTIES	Anthrax	Chickenpox	Diphtheria	Dysentery	Encephalitis Lethargic	Influenza	Malaria	Measles	German Measles	Meningitis, Epidemic Cerebrospinal	Mumps	Ophthalmia Neonatorum	Paratyphoid Fever	Pneumonia	Acute Anterior Polyomyelitis
Atlantic .....	0	340	0	0	0	2	1	513	33	0	452	0	0	11	44
Bergen .....	0	4,051	3	1	0	5	2	9,236	208	3	7,460	0	0	90	84
Burlington .....	0	274	7	0	0	1	0	413	8	3	456	0	0	52	18
Camden .....	1	1,179	27	0	0	3	3	1,066	33	6	1,216	0	0	141	97
Cape May .....	0	151	0	0	0	1	0	270	4	1	64	0	0	0	9
Cumberland .....	0	117	3	0	0	4	0	176	9	2	210	0	0	61	12
Essex .....	1	10,227	3	3	0	117	3	12,097	544	17	7,828	5	0	1,448	102
Gloucester .....	0	357	3	2	0	0	0	223	3	0	386	0	0	31	47
Hudson .....	0	1,144	17	1	2	4	1	2,060	63	10	2,429	0	0	157	40
Hunterdon .....	0	84	0	0	0	1	0	33	2	1	63	0	0	13	1
Mercer .....	2	880	20	2	0	11	0	355	41	10	1,346	0	0	195	17
Middlesex .....	0	775	3	0	1	2	0	942	24	2	1,236	0	0	56	15
Monmouth .....	0	1,246	5	1	0	4	0	536	318	5	1,718	0	1	84	201
Morris .....	2	983	10	19	0	7	1	2,203	79	0	1,383	0	0	26	33
Ocean .....	0	118	1	0	0	3	0	229	4	2	155	0	0	64	13
Passaic .....	3	2,021	0	2	0	35	1	6,851	49	5	1,592	0	0	23	23
Salem .....	0	26	1	0	0	0	0	92	5	2	37	0	0	6	4
Somerset .....	0	411	1	1	0	1	0	421	21	3	384	0	0	27	7
Sussex .....	0	216	0	0	0	1	0	679	4	0	220	0	1	13	5
Union .....	7	3,137	4	2	0	3	0	3,831	185	4	3,326	0	0	186	29
Warren .....	0	165	5	0	0	0	0	88	4	1	310	0	0	13	5
State institutions .....	0	46	0	20	0	0	1	9	2	0	102	0	0	28	1
Military posts .....	0	32	1	10	0	0	23	37	279	11	170	0	0	370	0
State total .....	16	27,980	119	66	3	205	36	42,960	2,014	97	32,293	5	2	3,095	809

## REPORTED CASES OF COMMUNICABLE DISEASES BY COUNTIES FOR 1948—Continued

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Tularemia	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic .....	0	1	54	0	1	0	1	101	0	2	0	0	91
Bergen .....	0	0	250	0	7	2	7	211	0	1	0	1	394
Burlington .....	0	1	140	0	2	0	0	56	0	0	0	2	68
Camden .....	0	1	264	0	2	1	0	199	0	0	0	0	110
Cape May .....	0	0	28	0	2	0	0	15	0	0	0	0	18
Cumberland .....	0	1	68	0	0	1	0	33	0	1	0	4	88
Essex .....	0	0	563	0	32	2	13	693	0	9	1	15	726
Glorcester .....	0	0	82	0	0	0	0	28	0	4	0	2	24
Hudson .....	0	0	312	0	7	1	1	524	0	2	0	1	161
Hunterdon .....	0	0	9	0	0	0	0	28	0	0	0	2	4
Mercer .....	0	0	128	0	14	0	0	199	0	2	0	1	39
Middlesex .....	0	0	69	0	0	0	0	160	0	1	0	2	53
Monmouth .....	0	2	59	0	3	2	1	109	0	0	0	0	154
Morris .....	0	0	56	0	3	1	0	69	1	0	0	6	120
Ocean .....	0	2	11	0	0	0	0	25	0	0	0	1	11
Passaic .....	0	0	122	0	2	0	1	184	0	3	0	3	257
Salem .....	0	2	35	0	0	0	0	21	0	1	0	3	9
Somerset .....	0	0	18	0	3	0	0	39	0	0	0	2	70
Sussex .....	0	0	6	0	1	0	0	11	0	1	0	2	22
Union .....	1	0	160	0	14	0	4	165	0	1	0	1	241
Warren .....	0	0	22	0	0	0	0	16	0	0	0	1	24
State institutions .....	0	0	1	0	23	0	0	181	0	1	0	0	20
Military posts .....	0	0	34	0	32	0	0	74	0	0	0	0	0
State total .....	1	12	2,500	0	148	10	28	3,141	1	34	1	49	2,704

TABLE IV  
RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1948

COUNTIES	Anthrax	Chickenpox	Diphtheria	Dysentery	Encephalitis, Lethargic	Influenza	Malaria	Measles	German Measles	Meningitis, Epidemic Cerebrospinal	Mumps	Ophthalmia Neonatorum	Paratyphoid Fever	Pneumonia	Acute Anterior Polyomyelitis
Atlantic .....	0	0	0	0	0	5	0	1	0	2	0	0	0	50	5
Bergen .....	0	0	0	0	0	5	0	2	0	0	0	0	0	117	0
Burlington .....	0	0	0	0	1	3	0	0	0	2	0	0	0	25	2
Camden .....	0	0	1	0	0	4	0	1	0	3	0	0	0	29	3
Cape May .....	0	0	0	0	0	1	1	0	0	0	0	0	0	17	2
Cumberland .....	0	0	0	0	2	2	0	0	0	1	0	0	0	24	2
Essex .....	0	0	0	0	3	4	0	3	0	2	0	0	0	203	2
Gloucester .....	0	0	0	0	1	1	0	0	0	0	0	0	0	27	4
Hudson .....	0	0	1	1	3	2	0	1	0	4	1	0	0	210	1
Hunterdon .....	0	0	0	0	0	1	0	0	0	1	0	0	0	18	0
Mercer .....	0	1	1	0	1	1	0	1	0	2	0	0	0	77	2
Middlesex .....	0	0	0	0	1	1	0	0	0	1	0	0	0	45	3
Monmouth .....	0	0	1	0	0	3	0	0	0	2	0	0	0	60	0
Morris .....	0	0	0	0	1	2	0	2	0	0	0	0	0	41	1
Ocean .....	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0
Passaic .....	0	0	0	1	3	3	0	3	0	0	0	0	0	94	0
Salem .....	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1
Somerset .....	0	0	0	0	0	1	0	0	0	0	1	0	0	23	0
Sussex .....	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0
Union .....	0	0	0	0	0	4	0	1	0	1	0	0	0	28	1
Warren .....	0	0	0	0	0	0	0	0	0	1	0	0	0	21	0
State total .....	0	1	4	2	16	40	1	17	0	22	2	0	0	1,278	44

## RECORDED DEATHS FROM COMMUNICABLE DISEASES BY COUNTIES FOR 1948—Continued

COUNTIES	Rabies	Rocky Mountain Spotted Fever	Scarlet Fever	Smallpox	Streptococcal Sore Throat	Tetanus	Trichinosis	Tuberculosis	Tularemia	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic .....	0	0	1	0	1	0	0	41	0	0	0	0	0
Bergen .....	0	0	0	0	1	1	0	98	0	0	0	0	0
Burlington .....	0	0	0	0	0	0	0	26	0	0	0	0	0
Camden .....	0	0	0	0	0	1	0	88	0	1	0	0	1
Cape May .....	0	0	0	0	0	0	0	11	0	0	0	0	0
Cumberland .....	0	0	0	0	0	1	0	22	0	0	0	0	1
Essex .....	0	0	0	0	0	1	0	278	0	2	0	0	0
Gloucester .....	0	0	0	0	0	0	0	14	0	1	0	0	1
Hudson .....	0	0	1	0	0	0	0	264	0	1	0	0	0
Hunterdon .....	0	0	0	0	0	0	0	6	0	0	0	0	0
Mercer .....	0	0	0	0	0	0	0	90	0	1	0	0	0
Middlesex .....	0	0	0	0	0	1	0	43	0	0	0	0	0
Monmouth .....	0	0	0	0	1	1	0	59	0	0	0	0	2
Morris .....	0	0	0	0	1	0	0	35	0	0	0	0	0
Ocean .....	0	0	0	0	0	0	0	14	0	0	0	0	0
Passaic .....	0	0	0	0	0	0	0	88	0	0	0	0	1
Salem .....	0	0	0	0	0	1	0	11	0	1	0	0	0
Somerset .....	0	0	0	0	0	0	0	17	0	0	0	0	0
Sussex .....	0	0	0	0	0	0	0	8	0	0	0	0	0
Union .....	1	0	0	0	0	1	0	64	0	0	0	0	0
Warren .....	0	0	0	0	0	0	0	11	0	0	0	0	0
State total .....	1	0	2	0	4	8	0	1,388	0	7	0	0	6

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

**TABLE V**  
**REPORTED CASES AND DEATHS; CASE AND DEATH RATES FOR TOTAL REPORTABLE DISEASES\* BY COUNTY FOR 1948**

COUNTY	Estimated Population	Cases		Deaths	
		Number	Rate†	Number	Rate†
Atlantic .....	145,302	1656	1139.7	115	79.1
Bergen .....	511,811	22106	4319.2	231	45.1
Burlington .....	108,285	1516	1400.0	56	51.7
Camden .....	292,504	4954	1693.7	195	66.7
Cape May .....	35,929	563	1567.0	32	89.1
Cumberland .....	84,241	790	937.8	55	65.3
Essex .....	900,591	34459	3826.3	605	67.2
Gloucester .....	84,154	942	1119.4	49	58.2
Hudson .....	673,303	6942	1031.0	499	74.1
Hunterdon .....	40,334	241	597.5	26	64.5
Mercer .....	222,629	3267	1467.5	177	79.5
Middlesex .....	251,511	3343	1329.2	95	37.8
Monmouth .....	208,660	4452	2133.6	130	62.3
Morris .....	158,937	5003	3147.8	83	52.2
Ocean .....	46,685	641	1373.0	21	45.0
Passaic .....	345,119	11179	3239.2	193	55.9
Salem .....	48,390	342	706.3	31	64.1
Somerset .....	92,466	1409	1523.8	47	50.8
Sussex .....	33,365	1182	3542.6	13	39.0
Union .....	389,842	11304	2899.6	161	41.3
Warren .....	55,365	654	1181.3	33	59.6
State institutions .....	§	435	§	§	§
Military posts .....	§	1073	§	§	§
State Total .....	4,729,000	118453	2504.8	2847	60.2

\* Exclusive of epilepsy and mental deficiency.  
 † Expressed per 100,000 population.  
 ‡ Rounded to nearest thousand.  
 § Not available.

**TABLE VI**  
**REPORTED CASES OF DIPHTHERIA IN NEW JERSEY**  
 For the Calendar Year 1948, 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 .....	3	0	1	0	0	0	0	0	1	0	1	0	0
1 year .....	7	1	1	2	0	0	0	1	1	1	0	0	0
2 years .....	10	2	2	5	1	0	0	0	0	0	0	0	0
3 years .....	10	2	1	0	1	1	0	0	0	2	0	2	1
4 years .....	12	4	3	2	0	0	0	0	0	2	1	0	0
Under 5 years .....	42	9	8	9	2	1	0	1	2	5	2	2	1
5 to 9 years .....	29	8	3	2	2	6	2	2	1	1	1	0	1
10 to 14 years .....	17	5	2	0	1	1	1	2	1	1	0	1	2
15 to 19 years .....	7	3	0	0	2	0	1	0	0	0	0	0	1
20 to 24 years .....	6	0	1	0	0	1	1	2	0	0	0	1	0
25 to 34 years .....	10	1	1	1	1	0	0	2	0	1	0	1	2
35 to 44 years .....	2	0	1	1	0	0	0	0	0	0	0	0	0
45 to 54 years .....	4	2	0	0	0	1	0	0	0	0	0	1	0
55 to 64 years .....	1	0	0	1	0	0	0	0	0	0	0	0	0
65 years and over .....	1	0	0	0	0	0	0	0	0	0	0	0	1
Age not stated .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	119	28	16	14	8	10	5	9	4	8	3	6	8

TABLE VI-A

## REPORTED CASES AND DEATHS FROM DIPHTHERIA IN NEW JERSEY

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year .....	3	0	0	0	3	0
1 year .....	5	0	2	0	7	0
2 years .....	6	0	4	1	10	1
3 years .....	8	0	2	0	10	0
4 years .....	8	0	4	1	12	1
Under 5 years .....	30	0	12	2	42	2
5 to 9 years .....	21	1	8	0	29	1
10 to 14 years .....	6	0	11	0	17	0
15 to 19 years .....	1	0	6	0	7	0
20 to 24 years .....	1	0	5	0	6	0
25 to 34 years .....	4	1	6	0	10	1
35 to 44 years .....	0	0	2	0	2	0
45 to 54 years .....	2	0	2	0	4	0
55 to 64 years .....	1	0	0	0	1	0
65 years and over .....	1	0	0	0	1	0
Age not stated .....	0	0	0	0	0	0
Total .....	67	2	52	2	119	4

TABLE VII

## REPORTED CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1948, 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	2	0	0	6	2	0	1	0	0	2	1	1
1 year .....	10	2	1	1	1	1	1	0	1	1	0	1	0
2 years .....	8	3	0	0	1	0	1	1	0	0	1	1	0
3 years .....	7	3	1	0	0	2	1	0	0	0	0	0	0
4 years .....	1	0	0	0	1	0	0	0	0	0	0	0	0
Under 5 years .....	35	10	2	1	3	5	3	2	1	1	3	3	1
5 to 9 years .....	14	1	0	1	2	0	1	0	2	1	1	2	3
10 to 14 years .....	11	1	1	0	0	0	0	1	0	3	0	2	3
15 to 19 years .....	12	0	0	3	0	1	2	2	1	1	0	0	2
20 to 24 years .....	7	0	0	3	0	0	0	0	1	1	1	0	1
25 to 34 years .....	4	0	1	1	0	0	1	0	0	0	0	1	0
35 to 44 years .....	5	0	1	1	0	0	1	0	0	1	1	0	0
45 to 54 years .....	3	0	0	0	0	1	0	1	0	1	0	0	0
55 to 64 years .....	4	0	2	0	0	0	0	0	1	0	1	0	0
65 years and over .....	2	0	0	0	1	0	0	1	0	0	0	0	0
Age not stated .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	97	12	7	10	6	7	8	7	6	9	7	8	10

TABLE VII-A

## REPORTED CASES AND DEATHS FROM EPIDEMIC CEREBROSPINAL MENINGITIS IN NEW JERSEY

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year .....	8	6	1	0	9	6
1 year .....	6	2	4	0	10	2
2 years .....	6	3	2	0	8	3
3 years .....	4	1	3	0	7	1
4 years .....	0	0	1	0	1	0
Under 5 years .....	24	12	11	0	35	12
5 to 9 years .....	6	1	8	0	14	1
10 to 14 years .....	9	0	2	0	11	0
15 to 19 years .....	7	0	5	1	12	1
20 to 24 years .....	4	1	3	0	7	1
25 to 34 years .....	2	0	2	0	4	0
35 to 44 years .....	1	0	4	0	5	0
45 to 54 years .....	1	3	2	1	3	4
55 to 64 years .....	2	1	2	2	4	3
65 years and over .....	1	0	1	0	2	0
Age not stated .....	0	0	0	0	0	0
Total .....	57	18	40	4	97	22

**TABLE VIII**  
**REPORTED CASES OF PNEUMONIA IN NEW JERSEY**  
For the Calendar Year 1948, 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	286	27	32	40	52	32	19	8	8	10	11	17	30
1 year	132	14	12	25	24	13	5	3	5	1	5	11	14
2 years	69	5	5	9	11	4	4	4	4	2	4	6	11
3 years	53	1	3	9	10	8	5	4	0	0	2	5	6
4 years	42	4	4	5	8	2	3	3	1	1	8	3	0
Under 5 years	582	51	56	88	105	59	36	22	18	14	30	42	61
5 to 9 years	159	9	8	25	24	12	15	7	5	5	20	13	16
10 to 14 years	69	6	7	4	8	2	4	3	3	7	8	6	11
15 to 19 years	281	34	30	31	32	14	31	12	27	23	10	7	30
20 to 24 years	146	19	15	18	18	3	13	10	5	17	10	2	16
25 to 34 years	258	34	22	34	28	17	16	18	13	18	19	9	30
35 to 44 years	261	30	26	30	25	18	11	14	11	23	24	20	29
45 to 54 years	298	51	40	47	31	23	18	14	10	12	9	18	25
55 to 64 years	345	53	32	72	35	15	17	17	11	25	25	20	23
65 years and over	696	114	66	114	85	44	43	33	28	35	46	40	48
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3095	401	302	463	391	207	204	150	131	179	201	177	289

**TABLE VIII-A**  
**REPORTED CASES AND DEATHS FROM PNEUMONIA IN NEW JERSEY**  
For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	163	141	123	112	286	253
1 year	72	16	60	16	132	32
2 years	41	3	28	8	69	11
3 years	31	7	22	3	53	10
4 years	24	3	18	3	42	6
Under 5 years	331	170	251	142	582	312
5 to 9 years	91	3	68	6	159	9
10 to 14 years	39	4	30	4	69	8
15 to 19 years	256	5	25	6	281	11
20 to 24 years	116	7	30	3	146	10
25 to 34 years	173	23	85	12	258	35
35 to 44 years	143	42	118	20	261	62
45 to 54 years	195	72	103	35	298	107
55 to 64 years	223	122	122	41	345	163
65 years and over	357	275	339	286	696	561
Age not stated	9	0	0	0	0	0
Total	1924	723	1171	555	3095	1278

**TABLE IX**  
**REPORTED CASES OF ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY**  
For the Calendar Year 1948, by Age Groups and Months

AGE GROUPS	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year	14	0	0	0	0	0	0	1	4	4	3	2	0
1 year	42	1	0	0	0	1	0	3	12	15	4	3	3
2 years	38	1	0	0	0	1	3	3	11	9	7	3	0
3 years	54	0	1	1	3	2	4	2	14	11	14	2	0
4 years	63	0	0	1	0	2	3	6	23	15	9	3	1
Under 5 years	211	2	1	2	3	6	10	15	64	54	37	13	4
5 to 9 years	257	0	0	0	1	4	3	23	56	87	48	29	6
10 to 14 years	123	1	0	0	0	3	2	16	24	51	12	13	1
15 to 19 years	72	0	1	0	0	0	0	5	26	25	11	2	2
20 to 24 years	59	0	0	1	1	1	1	6	14	23	6	5	1
25 to 34 years	62	0	0	0	0	0	2	2	15	23	16	4	0
35 to 44 years	21	0	0	0	0	0	0	1	3	7	7	3	0
45 to 54 years	3	0	0	0	0	0	0	0	0	1	1	1	0
55 to 64 years	1	0	0	0	0	0	0	0	1	0	0	0	0
65 years and over	0	0	0	0	0	0	0	0	0	0	0	0	0
Age not stated	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	809	3	2	3	5	14	18	68	203	271	138	70	14

TABLE IX-A

## REPORTED CASES AND DEATHS FROM ACUTE ANTERIOR POLIOMYELITIS IN NEW JERSEY

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year .....	3	0	11	0	14	0
1 year .....	26	0	16	0	42	0
2 years .....	23	0	15	1	38	1
3 years .....	28	0	26	2	54	2
4 years .....	45	2	18	0	63	2
Under 5 years .....	125	2	86	3	211	5
5 to 9 years .....	156	6	101	4	257	10
10 to 14 years .....	73	6	50	2	123	8
15 to 19 years .....	46	2	26	1	72	3
20 to 24 years .....	23	5	36	2	59	7
25 to 34 years .....	27	3	35	6	62	9
35 to 44 years .....	12	1	9	1	21	2
45 to 54 years .....	1	0	2	0	3	0
55 to 64 years .....	1	0	0	0	1	0
65 years and over .....	0	0	0	0	0	0
Age not stated .....	0	0	0	0	0	0
Total .....	464	25	345	19	809	44

TABLE X

## REPORTED CASES OF SCARLET FEVER IN NEW JERSEY

For the Calendar Year 1948, by Age Groups and Months

AGE GROUPS	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Under 1 year .....	8	0	1	3	1	0	2	0	0	0	0	0	1
1 year .....	75	6	6	12	9	9	9	5	5	1	0	7	6
2 years .....	121	22	18	13	12	9	9	4	2	3	6	9	14
3 years .....	180	20	22	34	26	14	10	3	0	0	1	13	37
4 years .....	223	25	31	44	32	16	18	6	3	4	8	22	14
Under 5 years .....	607	73	78	106	80	48	48	18	10	8	15	51	72
5 to 9 years .....	1407	153	177	259	162	128	95	24	14	24	54	136	181
10 to 14 years .....	309	40	59	45	47	23	16	9	2	3	12	35	38
15 to 19 years .....	103	16	15	27	16	8	3	1	1	0	2	5	9
20 to 24 years .....	22	1	1	12	0	4	0	0	0	0	0	1	3
25 to 34 years .....	28	1	8	5	5	4	0	0	0	1	2	0	2
35 to 44 years .....	12	3	1	0	1	1	2	0	0	0	1	0	3
45 to 54 years .....	8	1	5	0	0	1	1	0	0	0	0	0	0
55 to 64 years .....	3	0	0	1	0	1	0	0	0	0	0	1	0
65 years and over .....	1	0	0	0	0	0	1	0	0	0	0	0	0
Age not stated .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	2500	288	324	455	311	218	166	52	27	36	86	229	308

TABLE X-A

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

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year .....	7	0	1	0	8	0
1 year .....	39	0	36	0	75	0
2 years .....	68	0	53	0	121	0
3 years .....	102	0	78	0	180	0
4 years .....	110	0	113	0	223	0
Under 5 years .....	326	0	281	0	607	0
5 to 9 years .....	740	0	667	0	1407	0
10 to 14 years .....	165	0	144	1	309	1
15 to 19 years .....	64	0	39	0	103	0
20 to 24 years .....	13	0	9	0	22	0
25 to 34 years .....	14	0	14	0	28	0
35 to 44 years .....	4	0	8	0	12	0
45 to 54 years .....	4	0	4	0	8	0
55 to 64 years .....	1	0	2	1	3	1
65 years and over .....	0	0	1	0	1	0
Age not stated .....	0	0	0	0	0	0
Total .....	1331	0	1169	2	2500	2

**TABLE XI**  
**REPORTED CASES OF TUBERCULOSIS IN NEW JERSEY**

For the Calendar Year 1948, 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	5	0	1	1	1	0	0	0	0	0	2	0	0
1 year	20	1	1	1	0	2	3	2	4	0	2	3	1
2 years	11	0	0	0	1	1	1	0	1	1	3	1	2
3 years	4	0	1	0	0	0	0	0	0	0	0	1	2
4 years	5	1	0	1	0	0	0	1	0	0	0	1	1
Under 5 years	45	2	3	3	2	3	4	3	5	1	5	8	6
5 to 9 years	30	3	1	4	0	2	3	2	5	3	2	0	5
10 to 14 years	41	2	4	3	6	2	5	2	5	1	3	4	4
15 to 19 years	153	13	7	23	13	10	9	12	13	11	13	11	18
20 to 24 years	334	21	24	33	27	18	40	29	28	36	28	24	26
25 to 34 years	641	48	53	60	46	53	53	51	59	57	55	49	57
35 to 44 years	570	52	46	54	47	41	53	53	42	44	62	40	36
45 to 54 years	531	43	59	41	45	46	48	38	31	50	49	46	35
55 to 64 years	471	47	45	39	36	46	35	39	36	35	38	41	34
65 years and over	316	35	29	34	24	34	29	20	23	19	23	25	21
Age not stated	9	0	0	1	0	0	0	1	2	1	1	2	1
Total	3141	266	271	295	246	255	279	250	249	258	279	250	243

**TABLE XI-A**

**REPORTED CASES AND DEATHS FROM TUBERCULOSIS IN NEW JERSEY**

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	1	0	4	0	5	0
1 year	11	9	9	3	20	12
2 years	6	1	5	1	11	2
3 years	3	2	1	0	4	2
4 years	3	1	2	0	5	1
Under 5 years	24	13	21	4	45	17
5 to 9 years	17	2	13	2	30	4
10 to 14 years	15	0	26	3	41	3
15 to 19 years	70	11	83	18	153	29
20 to 24 years	157	30	177	36	334	66
25 to 34 years	305	83	336	107	641	190
35 to 44 years	371	141	199	82	570	223
45 to 54 years	399	233	132	56	531	289
55 to 64 years	380	247	91	43	471	290
65 years and over	235	195	81	82	316	277
Age not stated	5	0	4	0	9	0
Total	1978	955	1163	433	3141	1388

## DEPARTMENT OF HEALTH

TABLE XI-B  
 REPORTED TUBERCULOSIS CASES AND DEATHS, CORRESPONDING RATES BY  
 COUNTY FOR 1948

COUNTY	Estimated Population	Cases		Deaths	
		Number	Rate*	Number	Rate*
Atlantic .....	145,362	101	69.5	41	28.2
Bergen .....	511,811	211	41.2	98	19.1
Burlington .....	108,285	56	51.7	26	24.0
Camden .....	292,504	199	68.0	88	30.0
Cape May .....	35,929	15	41.7	11	30.6
Cumberland .....	84,241	33	39.2	22	26.1
Essex .....	909,591	693	76.9	378	42.0
Gloucester .....	84,154	28	33.3	14	16.0
Hudson .....	673,303	524	77.8	264	39.2
Hunterdon .....	49,334	28	69.4	6	14.9
Mercer .....	222,629	199	89.4	90	40.4
Middlesex .....	251,511	160	63.6	43	17.1
Monmouth .....	208,660	109	52.2	59	28.3
Morris .....	158,937	69	43.4	35	22.0
Ocean .....	46,685	25	53.6	14	30.0
Passaic .....	343,119	184	52.0	88	25.5
Salem .....	48,390	21	43.4	11	22.7
Somerset .....	92,466	39	42.2	17	18.4
Sussex .....	33,365	11	33.0	8	24.0
Union .....	389,842	165	42.3	64	16.4
Warren .....	55,365	16	28.9	11	19.9
State institutions .....	‡	181	‡	‡	‡
Military posts .....	‡	74	‡	‡	‡
State total .....	‡4,729,000	3141	66.4	1388	29.4

TABLE XII  
 REPORTED CASES OF TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1948, 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 .....	2	0	0	0	0	0	0	1	0	0	0	1	0
2 years .....	0	0	0	0	0	0	0	0	0	0	0	0	0
3 years .....	0	0	0	0	0	0	0	0	0	0	0	0	0
4 years .....	1	0	0	0	0	0	0	0	0	0	0	1	0
Under 5 years .....	3	0	0	0	0	0	0	1	0	0	0	2	0
5 to 9 years .....	6	0	1	1	1	0	0	0	1	1	0	0	1
10 to 14 years .....	1	0	0	0	0	0	0	0	0	0	0	1	0
15 to 19 years .....	4	0	0	3	0	0	0	0	0	0	0	0	1
20 to 24 years .....	3	0	0	1	0	1	1	0	0	0	0	0	0
25 to 34 years .....	5	1	0	0	0	1	0	1	0	1	1	0	0
35 to 44 years .....	4	0	0	1	0	0	0	1	0	2	0	0	0
45 to 54 years .....	4	0	0	0	1	0	0	0	0	1	0	2	0
55 to 64 years .....	2	0	0	0	0	0	0	1	0	0	0	1	0
65 years and over .....	2	0	1	0	0	0	0	1	0	0	0	0	0
Age not stated .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	34	1	2	6	2	2	1	5	1	5	1	6	2

\* Expressed per 100,000 population.

‡ Rounded to nearest thousand.

‡ Not available.

TABLE XII-A  
REPORTED CASES AND DEATHS FROM TYPHOID FEVER IN NEW JERSEY

For the Calendar Year 1948, by Age Groups and Sex

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

TABLE XIII  
REPORTED CASES OF WHOOPING COUGH IN NEW JERSEY

For the Calendar Year 1948, 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 .....	268	22	23	25	12	14	20	19	17	14	13	16	13
1 year .....	237	25	18	19	17	15	17	22	34	27	23	11	9
2 years .....	241	19	26	24	20	15	18	15	29	24	22	16	13
3 years .....	271	29	19	24	26	26	24	28	28	25	18	10	14
4 years .....	261	22	21	24	24	25	20	26	26	25	19	10	19
Under 5 years .....	1218	117	107	116	99	95	99	110	134	115	95	63	68
5 to 9 years .....	1190	138	99	133	100	94	72	96	79	113	100	62	104
10 to 14 years .....	199	31	21	25	18	11	19	16	7	17	10	9	15
15 to 19 years .....	35	6	5	6	4	3	2	3	2	2	1	0	1
20 to 24 years .....	5	0	0	0	0	0	2	0	1	1	0	1	0
25 to 34 years .....	21	1	2	1	5	1	1	1	3	4	0	1	1
35 to 44 years .....	26	1	3	4	1	2	2	6	1	3	1	0	2
45 to 54 years .....	5	0	0	2	1	0	0	2	0	0	0	0	0
55 to 64 years .....	2	0	1	0	0	0	0	0	0	0	1	0	0
65 years and over .....	3	0	0	1	0	0	0	0	0	0	2	0	0
Age not stated .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	2704	294	238	288	228	206	197	234	227	255	210	136	191

TABLE XIII-A

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

For the Calendar Year 1948, by Age Groups and Sex

AGE GROUPS	Male		Female		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year .....	122	1	86	5	208	6
1 year .....	114	0	123	0	237	0
2 years .....	120	0	121	0	241	0
3 years .....	140	0	131	0	271	0
4 years .....	134	0	127	0	261	0
Under 5 years .....	630	1	588	5	1218	6
5 to 9 years .....	554	0	636	0	1190	0
10 to 14 years .....	80	0	119	0	199	0
15 to 19 years .....	18	0	17	0	35	0
20 to 24 years .....	1	0	4	0	5	0
25 to 34 years .....	5	0	16	0	21	0
35 to 44 years .....	4	0	22	0	26	0
45 to 54 years .....	0	0	5	0	5	0
55 to 64 years .....	1	0	1	0	2	0
65 years and over .....	0	0	3	0	3	0
Age not stated .....	0	0	0	0	0	0
Total .....	1293	1	1411	5	2704	6

# Report of the Bureau of Preventable Diseases

July 1, 1948—June 30, 1949

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CARL E. WEIGELE, M.D., M.P.H., *Director*

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Section on Cancer Control.....RAYMOND V. BROKAW, M. D.  
*Chief*

Section on Communicable Disease Control:  
Tuberculosis Control Program.....A. JOSEPH HUGHES, M. D.  
*Chief*

Venereal Disease Control Program.....ADELE C. SHEPARD, M. D., M. P. H.  
*Acting Chief*

Section on Dental Diseases.....EARL G. LUDLAM, D. D. S., M. P. H.  
*Chief*

Migrant Health Program.....J. E. STUART, M. D.  
*Medical Assistant*

Section on Rehabilitation:  
Crippled Children Commission.....ALBERT LEON  
*Director and Chairman*

MRS. JOSEPH G. BUCH  
*Executive Director*



## Bureau of Preventable Diseases

In the pattern of reorganization of the Department, the Bureau of Preventable Diseases concerned itself with the development of plans for the control of the communicable diseases, and other acute and chronic diseases.

Activities previously carried out in the Bureau of Local Health Services became part of the work of the Bureau of Preventable Diseases. The activities transferred included the investigation and control of the communicable diseases, the selection of biologicals to be distributed by the State, and those services related to the referral and follow-up of tuberculosis cases discovered by x-ray surveys.

The Bureau includes the Section on Communicable Disease Control (the Communicable Diseases, the Tuberculosis Control Program, the Venereal Disease Control Program); the Section on Dental Diseases; the Section on Cancer Control; the Section on Rehabilitation (Crippled Children Commission, Heart Program, Alcoholism Program); and related activities in the field of diabetes and other chronic diseases. The various Sections and Programs have submitted individual reports in which the details of their planning and accomplishments are presented. The activities conducted by the Office of the Bureau Director are reported separately.

Several months after the Bureau was activated, it was possible to consolidate four units in one building. The activities of the professional and clerical staff were co-ordinated in relation to the work within the Bureau and to the Department as a whole.

The Department of Health is charged with the responsibility for developing an approach to the problem of alcoholism. Because there is no plan which has clearly demonstrated its value, and because it is desirable to avoid impeding the forward progress of other workers in this field, the major effort has been directed toward educating the public, the medical profession, and hospital administrators in the basic concept that alcoholism is a major public health and social problem. The establishment of a clinic for alcoholics in a general hospital is contemplated. In this location it is felt the alcoholic has the best opportunity to receive the medical and psychological care and treatment so urgently needed.

In co-operation with State and County Medical Societies, the New Jersey Health Officers' Association, and the United States Public Health Service, a mass blood screening test for diabetes was demonstrated at the Cavalcade of Progress in Asbury Park. A total of 1,030 had sugar determinations made on capillary blood and 68 had findings that warranted referral to their private

physicians for further study and advice. This was the first public demonstration of a mass blood screening test for diabetes in New Jersey. The experience suggests that further trials be made of mass blood sampling for diabetes, as well as other screening tests that can give physicians data with which to begin more detailed studies.

Through the office of the Director, the Bureau provided the medical direction of the State Disability Insurance Service which pays benefits for illnesses and disabilities that are not job related, and which prevent the individual from doing his usual work. Certifying as to the character and length of illness is the main responsibility, but there is also an opportunity to acquire statistics of unusual value. From the illness experiences of about 600,000 workers may be obtained data as to the causation and prevention of these illnesses.

The Director of the Bureau, acting as Chairman of the Board of Examiners of Health Officers and Inspectors, participated in the development of new licensing examinations and procedures.

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### Section on Cancer Control

This fiscal period concludes about two and a half years of activity of this Section.

In the reorganization of the Department during this period the Division of Cancer Control has been designated as Section on Cancer Control, continuing as a whole to function as a unit of the Bureau of Preventable Diseases. On December 30, 1948, all tissue laboratory and photographic activities of the Section, including personnel and equipment, were transferred to the newly organized Bureau of Laboratories in the Department.

In accordance with established policy continued emphasis has been placed upon professional education in the development of the program during this interval, with the initiation of a State-wide study of occupational cancer as an additional feature.

#### BASIC PATTERN

Every sound program designed to combat cancer revolves about the medical, the dental and the nursing professions. Other phases of such effort are important but secondary, on the basis of present knowledge.

Upon the physician largely rests the responsibility for the recognition of human cancer and the provision of medical care. The dentist shares with the physician responsibility for cancer of the mouth and adjacent areas, because in many of these cases the patient is first seen by him. The nurse occupies a strategic position in her opportunity to translate the facts of medical science to the laity and in turn guide the public to competent medical service.

The Department of Health has the unique opportunity of serving without prejudice the mutual interests of the professions and the public in this field by the promotion and support of a well founded professional education program.

#### SCIENTIFIC EXHIBIT

By invitation of the Section on Clinical Pathology of the Medical Society of New Jersey a scientific exhibit on the pathologic diagnosis of cancer was presented at the Annual Meeting of the Medical Society at Atlantic City in April, 1949.

Most recent cytologic diagnostic methods were summarized in a series of illustrated charts and mimeographed statements of the aspiration, surface biopsy, and sponge biopsy techniques were distributed. Slides from the laboratories of the respective originators of these techniques—Papanicolaou, Ayre and Gladstone—were made available for direct microscopic examination by visiting pathologists.

A series of 96 original lantern slides in color showing clinical photographs, reproductions of gross specimens, and photomicrographs of cancer were displayed by an automatic projector.

Presented also were charts enumerating the pathologic study materials on cancer made available by this Section to New Jersey physicians and scientists, and describing the tissue consultation service available to New Jersey pathologists.

This exhibit has been scheduled to be shown again at the New York Academy of Medicine during its Graduate Fortnight to be held in October 1949.

The workshop of the Division of Health Education of the Department collaborated with this Section in the execution of this project.

#### PATHOLOGIC STUDY MATERIALS

An important feature of the professional education program of the Section during this period has been the preparation and acquisition of pathologic study materials on cancer to be made available to the scientific professions of New Jersey.

These materials included on June 30, 1949, the following :

Lantern slides, in color, 2 x 2 and 3¼ x 4, showing clinical photographs, reproductions of gross specimens, photomicrographs.

Tissue slides including sets classified by organs, and a special James Ewing collection.

Motion picture films; black and white, and in color, silent and sound :

Tissue Culture.....	Chambers
Living Cells.....	Lewis
Cytologic Diagnosis.....	Ayre
Meiosis .....	Brice and Bacon
Problems of Diagnosis.....	American Cancer Society, and National Cancer Institute

#### TISSUE CONSULTATION SERVICE

This service is made available to New Jersey pathologists under the auspices of this Section by the Consulting Board of Tissue Pathologists of the New Jersey Society of Clinical Pathologists.

The procedure is as follows :

1. Slides are submitted to the Consulting Board.
2. Diagnosis is made by individual members of the Board.
3. Summary of findings by the Board is sent to the contributing pathologist.
4. Slides and data are filed in the Tumor Registry of the Section on Cancer Control.
5. Tumor Registry accessions are available for study.

#### PHOTOGRAPHIC SERVICE

As a direct means of promoting knowledge of cancer pathology among pathologists and physicians the Section has, by use of portable equipment, taken without charge photographs of cancer cases and autopsy material in various hospitals and physicians' offices, retaining duplicates of such material for permanent filing in the Section headquarters for scientific study. Tissue slides from these cases have also been prepared and photographed and made available by the same arrangement.

Using the Papanicolaou, Ayre and Gladstone technique, cytologic smears of various secretions have been taken from patients in hospitals by the personnel of this Section. These slides likewise have been stained, mounted, photographed, shared in part with the co-operating physician, and filed at the Section headquarters for study purposes.

Several hundred photographs and photomicrographs of cancer material, in color, have been prepared and filed by this Section during this period.

## CANCER FELLOWSHIP

As another feature of the Department's professional education program, a cancer fellowship providing a full year's residency for qualified young New Jersey physicians has continued to be maintained at the James S. Greene Memorial Tumor Clinic at Elizabeth during this fiscal year.

## PROFESSIONAL RELATIONS

The chief of this Section has served during this period as a member of the Executive Committee and Board of Trustees of the New Jersey Division of the American Cancer Society, as consultant to the Advisory Cancer Committee of the Medical Society of New Jersey, and as a member of the Consulting Board of Tissue Pathologists of the New Jersey Society of Clinical Pathologists.

## OCCUPATIONAL CANCER SURVEY

Supported by a grant from the United States Public Health Service, a survey of occupational cancer in the State has been inaugurated by the Department during this fiscal period under the auspices of this Section in cooperation with the Section on Adult and Industrial Health of the Department.

The immediate objective of the program is the possible determination of the extent of hazardous exposure to carcinogenic substances among employees in New Jersey industries.

The ultimate objective of the project is the augmentation of knowledge regarding the role of extrinsic factors in the causation of cancer in humans.

The initial phase of the work has consisted of a selection of cancer deaths from the records of the Bureau of Vital Statistics of the Department.

Field investigations designed to obtain data regarding personal habits of the deceased, possible exposure to special environmental hazards, and the occupational history is next in order. Pertinent medical facts are then to be recorded.

Intensive studies of plant conditions for the determination of possible exposure to carcinogens are then made.

Medical and statistical evaluations of the data at hand will be the final phase of the investigation.

## Section on Communicable Disease Control

### Tuberculosis Control Program

The fiscal year just ended was marked by little expansion of the Tuberculosis Control Program but much planning to insure its future growth. Plans were made, in co-operation with the Bureau of Vital Statistics and Administration, to revise form number 197 used for officially reporting cases of tuberculosis. A more comprehensive report card is to be used with the hope of obtaining a more accurate picture of the State's tuberculous problem. Plans were also formulated for obtaining more efficient statistical summaries of the case-finding program. In co-operation with the State Department of Institutions and Agencies, a program for obtaining a more complete record of our tuberculous morbidity and mortality was also considered. Much thought was given to the Program's taking over all the follow-up work formerly carried on by the Bureau of Local Health Services. Considerable planning was likewise done for the transfer of the two chest clinicians formerly in the State Department of Institutions and Agencies, and the problem of more completely controlling tuberculosis in State institutions was given much thought. It is hoped that the joint thinking and planning of many interested parties will soon work out a definite solution for this troublesome situation. These are but a few of the problems considered during the twelve months covering this report. The results of this planning will be reported in the next annual report.

One additional chest clinic was established, namely that in Cape May Court House. This brings the total number of such clinics established to eleven. There is still available equipment sufficient for setting up two additional clinics, and it is hoped that this will be accomplished in the very near future. The Cape May Court House Clinic was a joint effort on the part of the Cape May County Board of Freeholders, the Cape May County Tuberculosis Association, and this Department. It is probably the finest of all such clinics thus far organized and will prove of real service to the residents of that county.

Other than the establishment of the above-mentioned clinic, the pattern of the program formulated during the preceding years was continued. The Program continued greatest emphasis on the segments of tuberculosis control listed below in their relative position of emphasis:

1. Case finding in industries, community groups, and other selected segments of the State's population through the medium of photofluorographic technique. Five hundred thirty-two surveys of this type were conducted during the year. In that period 186,722 were X-rayed, making a total of 603,488 persons examined since the inception of this work in 1942.

2. Improvement and expansion of New Jersey's clinic facilities. The total number of clinics thus far established is 11. They are located in the following communities :

Phillipsburg .....	Warren County
Burlington .....	Burlington County
Cape May Court House .....	Cape May County
Cliffside Park .....	Bergen County
Garfield .....	Bergen County
Hammonton .....	Atlantic County
Lakewood .....	Ocean County
Mays Landing .....	Atlantic County
Newton .....	Sussex County
Paterson .....	Passaic County
Trenton .....	Mercer County

3. Consultation to State and local health agencies on problems relating to tuberculosis control.

4. Promotion of the program of routine chest X-raying of all admissions to general hospitals.

5. Establishing better tuberculosis reporting and record keeping in local health units as in our own State Department of Health.

Submitted below are: (1) Statistical summary of the case-finding program ; (2) Brief figures on the work accomplished by the clinics which this Program helped to establish ; (3) Results of the St. Francis Hospital routine admission chest X-ray program.

## SUMMARY OF MASS CHEST X-RAY SURVEYS

I. Number of persons X-rayed ..... 186,722

## II. Survey by counties:

<i>County</i>	<i>No. Surveys</i>	<i>No. Persons X-rayed</i>
Atlantic .....	77	9,954
Bergen .....	12	665
Burlington .....	27	6,382
Camden .....	35	14,712
Cape May .....	1	778
Cumberland .....	10	9,104
Essex .....	47	18,032
Gloucester .....	9	2,898
Hudson .....	25	5,279
Hunterdon .....	3	2,388
Mercer .....	27	27,566
Middlesex .....	35	7,062
Monmouth .....	14	11,687
Morris .....	38	16,008
Ocean .....	1	129
Passaic .....	109	31,756
Salem .....	5	2,002
Somerset .....	17	6,249
Sussex .....	2	259
Union .....	34	8,350
Warren .....	4	5,462
	532	186,722

III. Significant abnormalities:		
A. Pulmonary .....		5,829
1. Probably tuberculous .....	2,732	
a. Minimal .....	1,980	
(1) Activity suspected .....	206	
(2) Activity questionable .....	1,315	
(3) Activity improbable .....	459	
b. Moderately advanced .....	663	
(1) Activity suspected .....	393	
(2) Activity questionable .....	224	
(3) Activity improbable .....	46	
c. Far advanced, activity suspected .....	89	
2. Possible tuberculous .....	2,572	
a. Equivocal lesion .....	2,004	
b. Gross atypical lesion .....	375	
c. Disseminated calcification .....	51	
d. Suspected pneumoconiosis, 3d stage .....	142	
3. Probably non-tuberculous .....	525	
a. Suspected pneumoconiosis, 2d stage .....	167	
b. Suspected neoplastic mass .....	94	
c. Suspected bronchiectasis .....	74	
d. Suspected lung cyst .....	14	
e. Suspected emphysema .....	11	
f. Miscellaneous .....	165	
B. Pleural .....	204	
C. Diaphragmatic .....	452	
D. Skeletal .....	3,270	
E. Operative .....	69	
F. Cardiovascular .....	1,673	
IV. Number of persons referred for follow-up .....		6,595
A. Pulmonary referrals .....	5,784	
B. Cardiovascular referrals .....	470	
C. Other referrals .....	341	

REPORT OF ACTIVITIES OF CHEST CLINICS OPERATED BY LOCAL AGENCIES WITH  
NEW JERSEY DEPARTMENT OF HEALTH EQUIPMENT  
January—June, 1949

1. Number of X-rays taken .....		6,143
(a) Number of persons X-rayed for first time at these clinics .....	4,087	
(b) Number of persons re-X-rayed at these clinics .....	2,056	
2. Number of sputum specimens collected .....		1,304
3. Number of persons with one or more positive specimens .....		63
4. Number of persons admitted to Sanatoria from these clinics .....		111

REPORT OF ST. FRANCIS HOSPITAL ROUTINE X-RAY ADMISSION PROGRAM  
FROM OCTOBER 1, 1948 TO JUNE 30, 1949

A. Number of patients X-rayed .....		2,647
1. Number thought to have significant abnormalities .....	105	
B. Number of employees X-rayed .....		447
1. Number thought to have significant abnormalities .....	19	

**Section on Communicable Disease Control**  
**Venereal Disease Control Program**

Changes in organization and personnel have marked the past year. On December 29, 1948, the former Section on Venereal Disease Control was designated by the Commissioner as a part of the Section on Communicable Diseases of the Bureau of Preventable Diseases, and to be known as the Venereal Disease Control Program.

On January 1, 1949, Dr. A. J. Casselman, Chief of the Section on Venereal Disease Control, and for thirty years associated with the venereal disease program, was made Director of the Bureau of Laboratories. The medical assistant, Dr. Adele C. Shepard, was released in November 1948 to begin full-time study in Public Health at Columbia University. At the close of the year (June 16, 1949) Dr. Shepard was appointed Acting Chief of the Venereal Disease Control Program.

In June, 1949, Miss Jane Cook, the supervisor of public health nurses in the venereal disease control program, was transferred as V.D. consultant to the Section on Public Health Nursing. Two members of the nursing staff completed study for a B.S. degree and the other members of the nursing staff earned from eight to sixteen college credits through part-time study.

In addition to changes in organization and personnel, the moving of the offices has been accomplished this year. During this period of reorganization, the work has been carried on along the same general lines as last year.

Again, as for the past four years, this report will deal first with the penicillin treatment program, around which the whole venereal disease control program centers.

PENICILLIN TREATMENT

*Hospital Treatment of Syphilis.* Although ambulatory treatment has been used increasingly, we have continued to offer free hospitalization and penicillin for all classifications of syphilis. Requests for this type of treatment are diminishing, but during the past year hospitalization still was the preferred method for many patients (see Table 1). The same schedule as last year was followed: 8 days' hospitalization and a total dosage of 4.8 million units of aqueous penicillin (50,000 units every two hours) for most cases, with treatment extended up to 20 days and 12 million units of penicillin for cases of neurosyphilis and early congenital syphilis (less than four years). Of the 1,335 patients hospitalized, 87 were classified as neurosyphilis. Treatment for the mentally disturbed patients has always been available in State mental hospitals, so that the cases treated under this plan were those who could be cared for in general hospitals. Until the backlog of old cases of syphilis receive

penicillin treatment, the continuation of a hospital program probably will be advisable although the trend to ambulatory treatment should be encouraged as a cheaper and just as effective method of treatment.

TABLE 1—CASES TREATED WITH PENICILLIN UNDER THE STATE PLAN

Six-Month Periods	Gonorrhea		Syphilis		
	Hospital-ized	Out-Patient	Civilians Hospital-ized	Separatees Hospital-ized*	Ambulatory Treatment
July-December, 1944 .....	357	...	95	...	...
January-June, 1945 .....	446	...	168	...	...
July-December, 1945 .....	...	1,023	408	256	...
January-June, 1946 .....	...	2,323	691	433	...
July-December, 1946 .....	...	2,183	1,028	103	...
January-June, 1947 .....	...	2,732	1,149	...	...
July-December, 1947 .....	...	3,293	839	...	5
January-June, 1948 .....	...	2,266	949†	...	561
July-December, 1948 .....	...	2,596	751	...	1,133‡
January-June, 1949 .....	...	1,802	584	...	1,948
Total .....	803	18,218	6,662	792	3,647

#### AMBULATORY TREATMENT OF SYPHILIS

Last year a plan was undertaken experimentally of supplying POB (Penicillin in oil and beeswax) to practicing physicians for the treatment of syphilis of less than one year duration. The offer was made first to physicians who had reported five cases of syphilis during the preceding year and later extended to physicians who had reported at least one case. The fear that requests might quickly exhaust our supply of penicillin was not realized. The supply was adequate to meet requests and the procedures which had been set up for the distribution seemed satisfactory so that it was possible to expand the program quickly when, in November 1948, a special grant of 6,000 vials of POB was received from the U.S.P.H.S.

All physicians were then notified that POB would be supplied to them for the treatment of *all classifications of syphilis*. One change in method of distribution was made; as set up originally the plan called for replacement of two vials of POB (10 c.c. each), when the physicians sent in a form on which they

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

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

‡ In November, 1948 penicillin was offered to all physicians for the ambulatory treatment of all classifications of syphilis; previously the offer had been limited to selected physicians and to early cases.

had recorded the dates of treatment and daily dosage. This procedure was simplified by sending the POB immediately upon receipt of a report card (required by law) from the physician if he indicated on the back of the card that he wished penicillin. The physician was asked to continue to send a form when treatment was completed to serve as our record of the use of the penicillin. During the year, 501 different physicians have received penicillin for the treatment of 1,151 private ambulatory patients. An additional 1,930 patients have been treated in venereal disease clinics, a total of 3,081 cases treated on an ambulatory basis (see Table 1). The schedule recommended for ambulatory treatment was 600,000 units daily of a slowly absorbed preparation of penicillin for ten days, with the treatment schedule doubled in cases of neurosyphilis.

By June 1949 the POB supplied under a special grant had been used and the new improved procaine product put into general use.

#### PENICILLIN IN THE TREATMENT OF GONORRHEA

In November 1948 a change was made in the distribution of penicillin to physicians for the treatment of gonorrhoea. Instead of sending the physician 200,000 units of the aqueous preparation for every case reported, a 10 c.c. vial of POB was sent when the physician had reported five cases, with the recommendation that a single injection of 300,000 units (one c.c.) be used as routine treatment. The further recommendation was made that the dosage be doubled in the case of relapse or failure to respond to the first injection. Clinics also were kept supplied with POB for the treatment of gonorrhoea. Physicians were urged to treat on suspicion rather than to delay treatment for laboratory confirmation of the diagnosis, and to note on the report card in such cases that the diagnosis was made on clinical evidence.

#### OTHER DRUGS

In the past two years requests for arsenicals and bismuth for the treatment of syphilis have decreased markedly. Educational efforts have been directed towards popularizing the use of penicillin. However, in spite of the fact that there was a decrease of 50% over last year in the amount of drugs other than penicillin distributed, more than 14,000 single dose ampoules of arsenicals were sent to physicians upon request. Apparently many physicians are not yet willing to rely exclusively on penicillin.

In line with a recommendation of the U.S.P.H.S. the distribution of tryparsamide for the treatment of neurosyphilis was discontinued. Complicating sequelæ, such as amblyopia and tubular vision, have been attributed to its use. Physicians were advised that penicillin, which is relatively non-toxic, is now the treatment of choice in neurosyphilis.

Distribution of sulfa drugs has been restricted to cases of chancroid and lymphogranuloma venereum.

Granuloma inguinale is reported infrequently in New Jersey (only seven cases in 1948), but probably the disease is more prevalent than reports indicate. After study of the literature and conferences with the Merck Company Laboratories, which developed streptomycin, it was decided to offer this medication to physicians for the ambulatory treatment of cases of granuloma inguinale, providing the diagnosis was confirmed by positive smears (showing Donovan bodies). A daily dosage of 1½ grams for 14 days (total dosage 21 grams) was recommended. In only five cases has streptomycin been supplied. This is probably due in part to lack of medical personnel to contact physicians.

#### STANDARDIZATION OF SEROLOGIC TESTS

Lyophile standardized syphilitic serum was used eleven years ago to standardize the tests for syphilis. This work was discontinued during the Second World War as an economy measure. A 10 kilowatt simplified completely contained lyophile machine has now been obtained and will be used for drying serum during the coming year when sufficient electric current becomes available. At present, laboratories are being checked with liquid sera of known titer and have been supplied with liquid syphilitic sera upon request.

As in the past, all New Jersey laboratories may request regular supplies of Mazzini antigen and buffered saline for all their tests from the Section on Venereal Diseases Control. During the past year, 88 different laboratories received 8,730 c.c. of standardized Mazzini antigen with the necessary amounts of buffered saline.

#### EXAMINATION AND TREATMENT OF AGRICULTURAL MIGRANTS

Special clinics for migrant agricultural workers were operated again during the summer of 1948 under the direction of a committee of the State Departments of Labor and Health (see Table 2). These clinics were located at Cranbury, Freehold, Imlaystown, Orchard Center, Gelston Village and Glassboro.

Hospitalization for penicillin treatment was provided for 83 migrants with a diagnosis of syphilis of less than one year's duration. In addition, six patients were given ambulatory treatment at Orchard Center, where a nurse was on full-time duty. Cases of late syphilis were referred to private physicians. Penicillin treatment for gonorrhoea (one injection of POB) was given in the clinics to 133 patients.

TABLE 2—MIGRANT WORKERS EXAMINED FOR SYPHILIS, JULY 1, 1948-JUNE 30, 1949

Agricultural migrants (special clinics)	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
Cranbury .....	135	67	492
Freehold .....	79	57	318
Imlaystown .....	106	66	338
Glassboro (farm labor camp) Porta Ricans ...	7	0	41
Orchard Center and Gelston Village .....	96	59	692
	— 423	— 249	
Race tracks			
Atlantic City .....	31	20	239
Monmouth Park .....	16	23	267
Garden State (Camden) .....	32	34	465
	— 79	— 77	
Other groups			
Armour Fertilizer, Cartert .....	31	14	180*
Deerfield Packing Co., Bridgeton .....	68	88	1,300*
Fish Products Co., Crab Island, Tuckerton ...	18	4	40
Howard Smith Fertilizer, Port Monmouth ...	13	2	200*
Lakewood (hotel employees) .....	38	17	419
Miscellaneous .....	12	3	293
	— 180	— 128	
Total .....	682	454	

## OTHER MIGRANT WORKERS

In addition to the special clinics for agricultural migrants, examination of other groups was carried on throughout the year. This Department gave assistance in such programs at the race tracks, in some fertilizer and fish product plants, food packing plants, and among hotel employees. Complete figures as to the number of migrant workers tested are not available because blood specimens are not always marked so that migrants and residents can be distinguished. A partial list is given in Table 2.

## OYSTER SHUCKERS

Again this winter special clinics were operated in the Port Norris area for the examination and treatment of employees in the oyster industry (Table 3). The clinics were located at Port Norris, Greenwich, Maurice River and Bivalve. For the first time, ambulatory treatment for syphilis with penicillin was made available (a ten-day schedule of 600,000 units daily). The only restriction in this treatment plan was that re-treatment was withheld if the patient had been treated with penicillin within a year's time. Penicillin treat-

\* Approximate number.

ment was completed in 183 persons and 17 others received from one to eight injections and then were lost to treatment. More than half of the treated cases were classified as late latent and had been treated intermittently in the past with arsenicals and bismuth.

A treatment fee of \$1.00 for each injection was paid by the employee to the physician. The clinic was staffed by a local doctor and nurse employed by the oyster growers association.

This Department assisted (1) in organizing the clinics; (2) a public health nurse of the Department interviewed most of the infectious patients, although the conditions under which these people work and live made it difficult to do a good job; and (3) an educational program carried on with the co-operation of the unions, the employers, and the local minister was probably responsible for the excellent record of attendance at the clinics.

Most of this group of workers now claim New Jersey as their place of residence. However, until recent years, most of them were residents of Delaware and Maryland who migrated to Cumberland County during the oyster season. With the present concern about health needs of migrant workers, it is interesting to note that the urgency for an intensive V.D. program among this group of migratory workers in the oyster industry was recognized in 1938. Since then, clinics have been operated every year.

#### COMMUNITY BLOOD TEST SURVEYS

Several blood testing programs were carried on in connection with community chest X-ray surveys of the Tuberculosis Section (see Table 3).

TABLE 3—SPECIAL SURVEYS JULY 1, 1948-JUNE 30, 1949

	<i>Positive</i>	<i>Doubtful</i>	<i>Negative</i>
In connection with chest X-rays surveys			
Cavalcade of Progress, Asbury Park .....	2	3	217
Acme Staple Co., Camden .....	1	1	53
Community Survey, Egg Harbor .....	4	4	169
Community Survey, Mispah .....	..	2	47
Community Survey, Pleasantville .....	..	4	177
Community Survey, Swedesboro .....	2	2	137
Community Survey, Vineland .....	7	16	994
Total .....	16	32	1,794
Oyster shuckers (Port Norris area) .....	230	200	450

## Industrial groups:

E. Pritchard, Inc. ....	7	8	97
P. J. Ritter Co. ....	15	18	260
CO <sub>2</sub> Fire Equipment Co. ....	0	1	154
	<hr/>	<hr/>	<hr/>
Total .....	22	27	511

These surveys were not very productive in finding cases but were worthwhile perhaps from the standpoint of community education. Further trial of the value of combined X-ray and blood test surveys will be made in selected places.

## EMPLOYMENT TESTS

Many industries now include a blood test for syphilis as part of the pre-placement physical examination. Some industries require annual blood tests of their employees and others do blood tests routinely on persons who report to the accident room or medical service. The laboratory slips are not always marked to identify blood specimens as being sent from industry. When so marked, the same routine as in previous years has been followed; i.e., the individual tested is first notified, then a letter is sent to his physician and other local health officer or public health nurse if it appears that necessary medical care is not being received. During the year 1,266 positive blood test reports from 155 different industries were followed up.

## COUNTY JAILS

This year one of the objectives has been the stimulation of V.D. programs in the county jails. Routine examination of all persons admitted to county jails and penicillin treatment of those found to be infected is the goal (26:4-49.8). Conferences with jail physicians and wardens, members of Boards of Freeholders, and interested community leaders have helped to stimulate interest and action for better health services. Special mention should be made of the excellent V.D. program set up this year in the Cumberland, Gloucester and Bergen County Jails.

## STATE INSTITUTIONS

Through conferences with the medical staffs of the three State mental hospitals, penicillin has been substituted, in general, for hyperpyrexia and chemotherapy. Other State institutions still employing the older forms of treatment will be visited. Policies in regard to employment of persons with positive serology at State institutions also has been under discussion. The present policy of not employing persons with positive serology at State institutions will be discussed further with the staff of the State Department of Institutions and Agencies.

## PUBLIC HEALTH NURSING PROGRAM

The implementation of the V.D. program on the local level has depended, to a large extent, on the seventeen public health nurses of the staff who assist local health departments in various parts of the State. Although their chief function is contact tracing, (refer to paragraphs on epidemiology in this report) they usually are the ones to initiate and carry the responsibility for all V.D. activity in the community. The nurses explain to a practicing physician how to secure penicillin for the treatment of a medically indigent patient, arrange for a V.D. exhibit at the county fair, plead the case of a treated patient who has been discharged from his work because his blood test is still positive, secure pamphlets and films on venereal diseases or sex education for a club meeting, call attention of the proper officials and agencies to conditions in the community which breed V.D., assist in planning for the examination and treatment of special groups such as migrant workers or community surveys, and primarily interview infected persons for contact information and arrange for the examination and treatment of suspects.

## EPIDEMIOLOGY

After more than twenty years' experience in a "from whom to whom" method of case finding, this phase of the program still receives major attention. Some States have discontinued epidemiologic efforts in the case of gonorrhea on the basis that penicillin makes it easier to cure infected persons than to trace contacts. A study of the disposition of 273 contacts of gonorrhea, reported in this State in the three months period, January-March 1949, indicated that 44 (16%) were brought to treatment. It seems worthwhile for the present to continue the policy of applying epidemiologic methods against all the venereal diseases, although giving preference to early syphilis.

Permission to have a public health nurse interview the patient for contact information is a requirement for dispensing penicillin to physicians for the ambulatory treatment of early syphilis. Patients hospitalized for early syphilis also are interviewed for contact information. In an effort to secure better co-operation of physicians in referring private patients to the public health nurse for interview, a mimeographed statement was prepared which explains the reasons for the contact interview and gives the name, address and telephone number of the nurse in that area. Interested physicians have been supplied with copies of this statement to give to their patients.

During this fiscal year, 2,512 contact reports were received in the central office from civilian sources and an additional 472 were received from military encampments, a total of 2,984. These were referred to the proper local worker for investigation. In 298 of these reports (107 civilian and 191 military) a

tavern was named as the "place of encounter." The name and address of these taverns was referred to the State Alcoholic Beverage Commission.

#### MILITARY CONTACTS

In 1945, the peak year, more than 2,500 contacts were reported from military sources. This decreased to 401 last year, with a slight rise this year to 472 (399 gonorrhoea, 64 syphilis and 9 other). The fact that incomplete information was given in an increasingly large number of cases was called to the attention of the military authorities, who promptly took measure to train personnel for contact interviewing. A member of the staff attended the monthly meetings of the armed services disciplinary board in New York City, to maintain close liaison with V.D. control officers.

#### CIVILIAN CONTACTS

About the same number of contacts named by civilians were processed this year as last year (see Table 4). Complete reports of the disposition of 2,382 of the contacts have been received and of these 298 (12.5%) previously untreated cases were brought to treatment. In addition, 68 previously treated cases were returned to treatment and 129 others were already under treatment when investigated.

TABLE 4—CIVILIAN CONTACTS BY COUNTY AND LARGE CITY, JULY 1, 1948-JUNE 30, 1949

(NOTE: These figures should not be taken as an indication of the relative prevalence of venereal disease in these localities. The number of contacts reported depends, in part, upon the case-finding activity in that locality.)

Atlantic County .....	181	
(Atlantic City—157)		
Bergen County .....	88	
Burlington County .....	51	
Camden County .....	146	
(Camden—119)		
Cape May County .....	21	
Cumberland County .....	125	
Essex County .....	457	
(Newark—398)		
Gloucester County .....	49	
Hudson County .....	102	
(Jersey City—50)		
Hunterdon County .....	8	
Mercer County .....	182	
(Trenton—157)		
Middlesex County .....	50	
(New Brunswick—14)		
Monmouth County .....	165	
(Asbury Park and Neptune—55)		
Morris County .....	29	
Ocean County .....	14	
Passaic County .....	137	
(Paterson—92)		
Salem County .....	77	
Somerset County .....	13	
Sussex County .....	3	
Union County .....	78	
Warren County .....	10	
		1,986
Out-of-State .....		526
		2,512
Total .....		

## EDUCATIONAL PROGRAM

Pamphlets on venereal diseases and also pamphlets on sex education have been distributed to individuals and groups, such as P.T.A.'s, upon request as in the past. The number of pamphlets so distributed this year exceeded 57,000. More than 500 showings of V.D. and sex educational films were reported by the State Museum.

By letters and visits to individual physicians, through the department's page in the Journal of the State Medical Society, and by circularization of all physicians, information about diagnosis, treatment and control has been given

to physicians. Three issues of the V.D. News Letter were distributed to local health officials, clinics and other interested persons.

The manual for nurses was revised and published as a 14-page mimeographed "Outline of Procedures and Personnel Policies."

TABLE 5—CASES OF VENEREAL DISEASE REPORTED IN NEW JERSEY\*  
JANUARY 1, 1948-DECEMBER 31, 1948

County	Syphilis		Gonorrhoea		Chancroid		Total	1940 Population	Rate Per Thous.
	M.	F.	M.	F.	M.	F.			
Atlantic .....	308	344	193	100	..	..	945	124,066	7.6
Bergen .....	163	152	78	30	4	..	427	409,646	1.0
Burlington .....	67	83	82	13	..	1	246	97,013	2.5
Camden .....	178	175	141	75	1	..	570	255,727	2.2
Cape May .....	42	45	26	3	1	..	117	28,919	4.0
Cumberland .....	205	206	74	38	..	..	523	73,184	7.1
Essex .....	959	953	1,807	395	3	3	4,120	837,340	4.9
Gloucester .....	67	62	63	9	..	..	201	72,219	2.7
Hudson .....	291	363	289	78	5	2	1,028	652,040	1.5
Hunterdon .....	34	15	18	3	..	..	70	36,766	1.9
Mercer .....	376	320	260	79	..	..	1,035	197,318	5.2
Middlesex .....	255	268	138	125	..	..	786	217,077	3.6
Monmouth .....	369	435	194	119	2	..	1,119	161,238	6.9
Morris .....	50	52	48	9	..	1	160	125,732	1.2
Ocean .....	52	45	5	11	..	..	113	37,706	2.9
Passaic .....	172	192	177	33	1	1	576	309,353	1.8
Salem .....	71	71	48	10	..	..	200	42,274	4.7
Somerset .....	55	41	23	10	3	1	133	74,390	1.7
Sussex .....	5	14	2	1	..	..	22	29,632	.7
Union .....	261	239	126	70	..	1	697	328,344	2.1
Warren .....	31	19	7	4	1	..	62	50,181	1.2
Total .....	4,011	4,094	3,799	1,215	21	10	13,150	4,160,165	3.1

Granuloma inguinale—4.

Lymphogranuloma—11.

\* Does not include military cases; includes migrant workers.

### Section on Dental Diseases

During the fiscal year, 1948-49, the newly-named Section on Dental Diseases, continued to work for better dental and oral health for the people of New Jersey.

Dr. Earl G. Ludlam, Chief of the Section, was assigned to the School of Public Health, Columbia University Faculty of Medicine in September 1948, and received the degree of Master of Public Health on June 1, 1949.

During Dr. Ludlam's absence, Dr. Neal W. Chilton, part-time Assistant Chief, became part-time Acting Chief of the Section. There have been many requests from local areas for new programs or expansion of existing programs, which the Section has been unable to assist financially. Our personnel consulted with these local groups to aid in their formulation of proper plans, although no State or Federal funds were promised. The educational and treatment programs of the Section were continued just as before.

During the fiscal year 1948-49, \$41,377.50 was received from local sources for the various State supervised dental programs. Included in this figure is \$4,000.00 appropriated by the Morris County Freeholders and administered through the Section on Dental Diseases. State and Federal budget funds amounted to \$94,257.00 (refer to page 199), but we have no way of knowing how many additional funds were appropriated by local groups to defray the cost of gas, heat, electricity, nurses' and teachers' time devoted to the programs, etc.

The clerical personnel situation in the Section Office finally became stabilized, with the appointment of a Senior Clerk-Stenographer on October 1, 1948. We now have two Clerk-Typists and one Senior Clerk-Stenographer with permanent classified Civil Service status.

Dr. Harry R. Barber of Bridgeton, New Jersey, was appointed Supervisor for Southern New Jersey, in October 1948. Dr. Barber's area is comprised of Atlantic, Camden, Cape May, Burlington, Cumberland, and Gloucester Counties. The Southern Dental Society should feel well pleased with its selection of Dr. Barber. He has worked very efficiently and has proven quite capable. We in the Dental Section feel confident that South Jersey will be well served in the future. The resignation of Dr. Edmond de Monseigle as Supervisor for Middlesex, Monmouth, and Ocean Counties, effective June 30, 1949, was received and reluctantly accepted by this office. Dr. de Monseigle has accepted New Hampshire as his new permanent residence, and New Jersey has lost one of its most capable, most highly interested, and best loved citizens. To help the underprivileged children of our State seemed the one ambition possessed by Dr. de Monseigle and to achieve this end, he gave innumerable hours and endless effort. Our thanks to you, Doctor, we wish you

well in your New Hampshire surroundings. The matter of a replacement for this position as Supervisor for these three counties is now under consideration by the Middlesex and Monmouth Dental Societies and our office, and a selection will be made in the near future. During the year, one of our field workers, Leila Bedwell, R.N., was on leave of absence for several months for additional training in public health nursing at Columbia University. This was in line with the Department's policy of encouraging the nurses to take a year of basic postgraduate training in public health nursing.

The first National Child Dental Health Day was held on February 7th and proved to be a great success. This was essentially a project of the American Dental Association, the New Jersey State Dental Society and its local component dental societies. The Section on Dental Diseases and the whole State Department of Health, actively co-operated in this project, particularly by supplying a large part of the educational material used.

During this fiscal year, the personnel of the Section participated in the teaching programs of Columbia University, New York University, and the University of Pennsylvania. Lectures were delivered to undergraduate and postgraduate dental students on public health dentistry, nutrition in its relation to dental and oral health and disease, and analysis of dental research. Such participation in teaching not only helps to impart information to the dental profession in public health dentistry, but also calls attention to the progress being made in this field by the New Jersey State Department of Health. A 30 hour, 2 credit course, in Dental Hygiene was presented to 14 nurses in Trenton, through the School of Nursing Education of Seton Hall College.

The personnel of the Section has continued to make valuable contributions to the various scientific periodicals, including the Journal of the American Dental Association, the Journal of the New Jersey State Dental Society and the Public Health News. The book, "Dentistry in Public Health," published by Saunders, under the auspices of the American Public Health Association, was published in January 1949, with Dr. J. M. Wisan, former Chief of this Section, as co-editor.

This Section has been actively co-operating with the New Jersey Department of Education and the New Jersey Nutrition Council. One member of the Section has been serving on the executive committee of the Council and as chairman of its committee on nutritional problems of older adults. Undoubtedly as a result of the activities of the Section in nutrition, the Assistant Chief was asked to present a paper on nutrition and Oral Health and Disease, before the New York State Health Conference in Lake Placid.

During the past fiscal year, the Section has continued to augment its library with scientific dental subjects, as well as with public health materials. This has been necessary since there is no dental library of any size in New Jersey, the nearest one being in New York or Philadelphia. The Section has

also purchased dental health material for distribution. We have found that with the increasing costs of printing, it is more economical to purchase already published pamphlets which have received the approval of recognized public health organizations.

The Somerset County Mobile Unit and the Atlantic-Cape May County Mobile Unit were refinished at a cost of \$500.00. This is in line with the Section's policy of keeping its units in the best possible condition. Each year, it is expected that at least one unit will be so taken care of. In addition, new heating and suction equipment was installed in the Somerset and Gloucester Units.

This was the first year that the Mobile Clinics in Gloucester and Warren Counties have operated on a full year-round basis. These mobile clinics have carried on a very satisfactory summer program during the months of July and August. The Camden County Mobile Clinic operated this summer as it has in the past. The Dental Trailer in Somerset County was in service during the months of July and August at the Kiddie Keep Well Camp, Metuchen, New Jersey.

The Ocean County Dental Trailer and the Atlantic-Cape May County Mobile Clinic were not in use this past summer. The Dental Section strongly recommends funds be provided in the annual budget, in order that all six of these mobile clinics and trailers may continue their activities during future summer months.

Sodium fluoride solution 2% was supplied in bottled form by the Dental Section to each of the 107 dentists working this past year on the New Jersey State Dental Program. Each Dental Operator was supplied with a copy of "Technic for Application to the Teeth" by John W. Knutson, D.D.S., Dr. P. H., Washington, D. C., and advised to follow the technic and suggestions outlined therein. In 1947-48, 2,519 single fluorine treatments were given, and this past year the figure reached 18,034. This corresponds to approximately 630 children in 1947-48, and 4,510 in 1948-49 who received the total series of four applications. As you can readily see this number compared to the number of children of elementary school grades in our State is exceedingly low. The Chief of this Section was in attendance at the 2nd Annual Conference of all State Directors in Washington, D. C., held on June 8, 9, and 10, listened to the reports of every State Dental Director and Officials of the Dental Division of the United States Public Health Service. The unanimous opinion was that sodium fluoride treatments are worthy and should be continued. The Council on Dental Health of the American Dental Association also recognizes and advises its use routinely in all private dental offices. To this the Chief of the Section on Dental Diseases of the New Jersey State Department of Health thoroughly agrees. Sodium fluoride in the field of Dental Public Health is our best preventive measure, therefore this Department recommends its continued use in every county, as has been the procedure

during this past year. You will note on pages 141 and 143, that the statistics given in the treatment program show the figure of 69.4% for children completely treated during the year 1947-48, as compared with 60.7% for this past year. This decrease undoubtedly is due to the amount of time consumed in giving sodium fluoride applications.

However, the effects of sodium fluoride cannot be measured in one or two years, but must be continued for a long period of time. The Chief of the Dental Section is in absolute accord with the old time expression "an ounce of prevention is worth a pound of cure." Sodium fluoride solution will be used in the New Jersey State Dental Program for the year 1949-50. In conclusion, the following pages of data and statistics verify the fact that the Dental Section has performed exceedingly well during this past year. We shall endeavor to continue as in the past, emphasizing "Prevention" as well as "Treatment" in the Dental Program, wherever possible.

#### PERSONNEL

- 1—Chief of Section on Dental Diseases
- 1—Assistant Chief (part time basis)
- 4—Dental Supervisors
- 1—Dental Aide
- 2—Field Representatives
- 1—Senior clerk-stenographer
- 2—Clerk-typists
- 107—Operating dentists
  - 9—Full-time dentists
  - 98—Part-time dentists

BUREAU OF PREVENTABLE DISEASES

BUDGET—1948-1949

<i>Items</i>	<i>State</i>	<i>Federal</i>
Salaries: (State)		
Including the following:		
Chief, 2 field representatives, 1 dental aide, operating dentists	\$69,603.59	
Bonus .....	870.00	\$195.00
Salaries: (Federal)		
Including the following:		
1 assistant chief, 1 senior clerk-stenographer, 2 clerk-typists, 4 supervisors, 1 dentist in North Arlington Clinic, 2 dentists in Paterson Clinic .....		18,810.00
Others:		
Motor vehicle transportation supplies .....	500.00	
Travel .....	810.00	775.00
Printing .....	375.00	
Scient. supplies .....	500.00	376.24
C. R. auto equipment .....	700.00	
Dental equipment .....	13.50	
Ed. rec. and library supplies .....	650.00	15.97
Office equipment .....	7.77	25.00
Miscellaneous expenses .....		30.00
Totals .....	\$74,029.86	\$20,227.21
State funds .....	\$74,029.86	
Federal funds .....	20,227.21	
Local contributions .....	41,377.50	
Total .....	\$135,634.57	

REPORT—DENTAL TREATMENT PROGRAM

July 1, 1948, to June 30, 1949

Program	Initiated	Type of Program*	Dentist	Communities	Operating Time (Hours)	Children Treated	Visits	Examinations	Extractions		Permanent Fillings		Material		Temporary	Prophylaxis	X-ray	Linings and Other**	Fluorine Treatment	Total Operations	Cases Completed	Percentage of Completions
									Perm.	Decid.	Tooth Filled	Surfaces Filled	Amalgam	Silicate								
Atlantic County Program..	1947	Mo. Cl.	1	6	532	628	1,418	572	49	449	695	1,087	673	40	60	260	0	8	299	2,144	142	22.6
Bergen County Program...	1943	P. O.	5	6	214	93	424	88	17	62	289	400	280	38	23	60	47	77	153	748	45	48.3
North Arlington .....	1940	Cl.	1	1	681	387	1,833	1,129	17	93	1,457	2,119	1,388	113	57	767	1,056	806	0	4,052	370	95.6
Rutherford .....	1945	Cl.	1	1	158	45	182	1,128	7	13	151	224	145	6	5	38	148	0	137	567	35	77.7
Burlington County Program	1942	P. O.	9	8	290	238	653	288	91	225	440	549	446	31	29	165	8	80	432	1,470	80	33.6
Camden County Program ..	1943	Mo. Cl.	1	10	1,067	620	2,160	1,874	37	511	2,580	3,396	2,476	104	24	737	207	251	1,443	6,331	554	89.3
Lawnside .....	1944	P. O.	1	1	33	56	92	55	12	29	33	44	32	1	8	56	0	1	70	211	29	51.7
Cape May County Program	1947	Mo. Cl.	1	10	532	739	2,502	2,198	79	217	589	882	460	126	64	367	0	0	94	1,639	128	17.3
Cape May County .....	1942	P. O.	1	1	33	37	48	35	4	6	67	84	62	3	3	36	1	0	49	180	24	64.8
Cumberland County Program	1942	P. O.	9	5	666	275	1,116	391	69	399	643	802	629	32	48	265	160	184	725	2,420	116	42.1
Essex County Orange																						
Program .....	1944	Cl.	2	1	726	393	1,690	551	5	139	1,266	1,864	1,197	111	35	511	107	595	793	3,419	349	88.8
Montclair .....	1947	Cl.	2	1	812	418	2,117	587	14	178	1,160	1,774	1,061	124	125	589	26	552	1,402	3,983	386	92.3
Gloucester County Program	1947	Mo. Cl.	1	6	1,082	557	2,344	1,632	96	349	4,095	4,991	3,983	107	4	535	884	34	1,497	8,352	510	91.5
Hunterdon County Program	1940	Cl.	1	23	382	342	2,686	1,812	15	53	321	460	355	45	71	241	28	109	883	1,650	70	20.4
Middlesex County Program	1942	P. O.	4	5	290	128	624	99	24	88	408	548	403	36	4	127	1	254	332	1,120	60	46.8
Kiddie Keep Well Camp	1942	Tr.	1	1	171	248	488	234	1	192	142	174	163	0	2	248	0	27	0	615	71	28.6
Deans .....	1945	Cl.	2	1	137	53	204	53	10	21	217	255	205	13	35	48	0	2	119	453	24	45.2
Monmouth County Program	1941	P. O.	13	12	1,069	468	2,093	2,146	99	327	1,715	2,126	1,645	196	54	386	177	183	852	3,967	266	56.8
Matawan .....	1945	Cl.	2	1	119	128	222	1,254	6	10	143	162	146	5	47	36	0	0	80	294	20	15.6
Union Beach .....	1946	Cl.	1	1	75	24	141	425	2	25	88	104	87	0	2	14	0	8	42	187	14	58.3
Collier Foundation .....	1945	Cl.	1	1	39	34	75	26	12	0	35	37	30	5	26	3	10	1	43	105	0	0
Morris County Program ...	1943	P. O.	21	21	1,405	570	2,785	842	113	604	2,073	2,800	2,017	220	211	528	237	528	1,477	5,759	304	53.3
Ocean County Program ...	1944	P. O.	7	7	433	192	796	153	71	127	615	747	559	52	17	174	47	70	462	1,628	86	44.7
Trailer .....	1946	Tr.	2	2	398	101	812	27	32	152	323	370	300	22	23	137	5	231	359	1,055	58	57.4
Passaic County Program...	1945	P. O.	1	1	42	23	89	23	11	20	75	99	75	8	7	18	9	3	33	190	6	26.0
Bloomington .....	1946	Cl.	1	1	87	36	201	38	15	61	127	175	146	11	0	36	2	31	143	432	18	50.0
Wanaque .....	1944	Cl.	1	1	50	21	115	25	3	28	69	92	84	0	8	28	0	1	76	227	9	42.8
Paterson .....	1941	Cl.	2	1	2,031	931	4,012	1,817	120	836	3,240	4,693	3,527	207	9	1,111	724	528	3,199	10,683	865	82.9
Somerset County Program.	1942	Tr.	1	13	838	471	2,332	3,117	5	181	806	1,171	881	60	14	483	25	142	1,315	3,180	369	78.3
Sussex County Program...	1942	P. O.	8	8	377	183	894	172	40	193	572	701	599	50	38	183	29	163	494	1,640	106	57.9
Union County Program ...	1948	P. O.	1	1	39	21	76	1	2	26	70	97	66	4	2	0	0	69	0	125	0	0
Clarktownship .....	1943	Cl.	1	1	174	76	275	416	7	33	145	172	156	2	8	39	53	26	90	394	10	13.1
Kenilworth .....	1945	Cl.	1	1	188	47	270	655	1	27	213	284	202	5	14	63	0	0	184	159	36	76.5
Warren County Program ..	1947	Mo. Cl.	1	10	1,144	196	1,636	2,277	22	217	1,168	1,914	1,393	41	114	335	485	1,993	757	3,730	179	89.9
Totals (18 counties)...			107	170	16,314	8,782	37,365	26,050	1,108	5,891	25,970	35,406	25,781	1,818	1,191	8,624	4,476	6,939	18,034	73,539	5,339	60.7

\* Code for Type of Program: P. O.—Private office; Cl.—Clinic; Mo. Cl.—Truck mobile with complete dental equipment; Tr.—Trailer with dental equipment.  
 \*\* Includes miscellaneous treatments such as: Vincent's infection, Guttapercha, Post operative, Root canal, Anesthesia for extraction or cavity preparation.

**REPORT—DENTAL TREATMENT PROGRAM**

July 1, 1940, to June 30, 1949

Number of Counties	Year*	Type of Program*	Dentists	Communities**	Operating Time (Hours)	Children Treated	Visits	Examinations	Extractions		Permanent Fillings		Material			Temporary	Prophylaxis	X-ray	Linings and Others	Fluorine Treatment	Total Operations	Cases Completed	Percentage of Completions
									Perm.	Decid.	Tooth Filled	Surface Filled	Amalgam	Silicate									
2	1940-41	Cl.	2	25	1,232	839	2,843	979	423	1,596	0	0	2,846	77	55	686	0	0	0	6,607	320	39.2	
8	1941-42	P. O. Tr. Cl.	15	48	3,153	2,086	8,297	1,892	613	4,685	0	0	6,838	276	399	1,765	2	0	0	14,410	1,259	60.2	
11	1942-43	P. O. Tr. Cl.	25	109	4,739	2,846	10,150	3,455	879	5,286	0	0	9,066	500	887	1,888	0	0	0	19,018	1,961	68.9	
16	1943-44	P. O. Tr. Cl.	49	150	6,277	3,328	12,691	6,277	888	4,242	0	0	10,785	693	1,065	2,568	610	0	0	20,967	2,294	68.9	
16	1944-45	P. O. Tr. Cl. Mo. Cl.	58	154	8,046	1,679	17,754	7,666	958	5,264	0	0	13,446	996	1,249	3,640	1,032	0	0	26,459	3,090	65.8	
17	1945-46	P. O. Tr. Cl. Mo. Cl.	86	171	10,575	5,732	23,951	11,826	1,123	5,795	0	0	21,389	1,513	1,468	6,096	2,341	0	0	38,215	3,934	68.6	
17	1946-47	P. O. Tr. Cl. Mo. Cl.	108	188	15,821	7,713	28,499	24,484	1,382	6,821	0	0	27,666	2,724	1,748	8,080	2,491	0	0	49,164	4,932	63.9	
18	1947-48	Cl. P. O. Mo. Cl. Tr.	100	189	14,891	8,539	28,220	21,597	1,077	7,257	28,781	40,017	28,585	2,103	1,148	9,343	3,096	7,298	2,519	60,790	5,932	69.4	
18	1948-49	P. O. Tr. Cl. Mo. Cl.	107	170	16,314	8,782	37,365	26,050	1,107	5,891	25,970	35,406	25,781	1,818	1,191	8,624	4,476	6,939	18,034	73,539	5,339	60.7	

\* Code for Type of Program: P. O.—Private offices; Cl. Clinic; Tr.—Trailer with dental equipment; Mo. Cl.—Mobile clinic truck with complete dental equipment.

\*\*NOTE: During the early stage of the program, the number of communities in the program was obtained with some difficulty. The cause of the confusion was the use of school districts, townships, boroughs and schools as units for reporting. After July 1, 1945, it was decided to list only school districts.

**BUDGET—SECTION OF DENTAL DISEASES**  
**NEW JERSEY STATE DEPARTMENT OF HEALTH—1939-1949**

	1939-40		1940-41		1941-42		1942-43		1943-44		1944-45		1945-46		1946-47		1947-48		1948-49	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Federal contributions																				
(U. S. P. H. S.) ...	\$5,240	100	\$12,968	80	\$14,615	46	\$14,972	46	\$15,021	20	\$16,270	21	\$19,369	18	\$23,233	15	\$20,049	17	\$20,227	15
State contributions ..	0	0	0	0	12,000	38	12,187	37	51,795	69	50,900	66	64,707	61	101,017	65	63,406	55	74,030	55
Local contributions ..	0	0	3,200	20	4,900	16	4,900	17	8,500	11	9,967	13	22,800	21	30,000	20	34,150	28	41,377	30
<b>Total .....</b>	<b>\$5,240</b>	<b>100</b>	<b>\$16,168</b>	<b>100</b>	<b>\$31,515</b>	<b>100</b>	<b>\$32,059</b>	<b>100</b>	<b>\$75,316</b>	<b>100</b>	<b>\$77,137</b>	<b>100</b>	<b>\$106,876</b>	<b>100</b>	<b>\$154,250</b>	<b>100</b>	<b>\$119,605</b>	<b>100</b>	<b>\$135,634</b>	<b>100</b>

Program	Type of Program	Dentist Hours		Number of Children Treated		Percentage of Completed Cases		Number of Permanent Extractions per 100 Children Treated		Number of Operations per 100		Number of Fluorine Treatments	
		1947-48	1948-49	1947-48	1948-49	1947-48	1948-49	1947-48	1948-49	1947-48	1948-49	1947-48	1948-49
Atlantic and Cape May County	Mo. Cl.	851	1,064	445	1,367	61.3%	19.7%	14.1	9.4	9.4	27.6	0	393
Bergen County Program	P. O.	219	214	102	93	61.7	48.3	27.4	18.2	6.5	8.0	73	153
North Arlington	Cl.	771	681	417	387	92.8	95.6	2.3	4.3	8.1	10.47	0	0
Rutherford	Cl.	117	158	57	45	94.7	77.7	10.5	15.5	5.0	12.6	0	137
Burlington County Program	P. O.	289	290	434	238	39.8	33.6	17.7	38.2	3.2	6.1	16	432
Camden County Program	Mo. Cl.	1,039	1,067	693	620	92.4	89.3	6.4	5.9	8.7	10.2	0	1,443
Lawnside	P. O.	33	33	64	56	53.1	51.7	10.9	2.1	3.0	3.7	0	70
Cape May County Program	P. O.	33	33	36	37	54.5	64.8	5.5	1.0	4.8	4.8	40	49
Cumberland County Program	P. O.	738	666	441	275	60.7	42.1	20.1	25.0	6.0	8.8	58	725
Essex County Orange Program	Cl.	753	726	427	393	90.3	88.8	6.7	1.2	7.7	8.6	0	793
Montclair	Cl.	888	812	436	418	60.0	92.3	4.3	3.3	7.8	9.5	28	1,402
Gloucester County Program	Mo. Cl.	582	1,082	238	557	89.9	91.5	24.7	17.2	15.5	14.9	0	1,497
Hunterdon County Program	Cl.	336	382	369	342	67.4	20.4	8.1	4.3	3.9	4.9	0	883
Middlesex County Program	P. O.	248	290	224	128	22.7	46.8	20.5	18.7	3.7	8.7	39	332
Kiddie Keep Well Camp	Tr.	191	171	268	248	29.1	28.6	4.8	0.4	6.7	2.3	0	0
Deans	Cl.	154	137	59	53	52.5	45.2	32.2	18.8	6.7	8.5	0	119
Monmouth County Program	P. O.	1,076	1,069	602	468	80.8	56.8	11.6	21.1	7.3	8.4	0	852
Matawan	Cl.	141	119	171	128	22.2	15.6	4.6	4.6	2.4	2.2	0	80
Collier Foundation	Cl.	0	39	0	34	0	0	0	35.2	0	3.0	0	43
Union Beach	Cl.	118	75	59	24	64.4	58.3	28.8	8.3	5.5	7.7	0	42
Morris County Program	P. O.	832	1,405	440	570	49.3	53.3	23.1	19.8	6.5	10.1	140	1,477
Ocean County Program	P. O.	336	433	131	192	58.7	44.7	51.1	36.9	8.1	8.4	0	462
Trailer	Tr.	369	398	200	101	22.5	57.4	12.5	31.6	4.2	10.4	0	359
Passaic County Program	P. O.	42	42	22	23	72.7	26.0	22.7	47.8	7.7	8.2	0	33
Bloomingdale	Cl.	90	87	36	36	61.1	50.0	33.3	41.6	10.0	12.0	89	143
Wanaque	Cl.	48	50	37	21	45.9	42.8	2.7	14.2	3.8	10.8	58	76
Paterson	Cl.	2,157	2,031	1,033	931	96.7	92.9	11.2	12.8	9.4	11.4	1,528	3,199
Somerset County Program	Tr.	789	838	546	471	87.3	78.3	8.6	1.0	5.0	6.7	0	1,315
Sussex County Program	P. O.	329	377	248	183	50.0	57.9	14.9	21.8	5.7	8.9	46	494
Union County Program:													
Clarktownship	Cl.	168	174	87	76	51.1	13.1	3.4	9.2	5.7	5.1	68	90
Kenilworth	Cl.	188	188	48	47	41.6	76.5	8.3	2.1	8.2	11.8	207	184
Winfield	P. O.	0	39	0	21	0	0	0	9.5	0	5.9	0	0
Warren County Program	Mo. Cl.	989	1,144	169	199	73.9	89.9	12.4	11.1	13.6	18.7	131	757
Totals (18 counties)	....	14,891	16,314	8,539	8,782	69.4	60.7	12.6	12.6	7.1	8.4	2,519	18,034

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

**INCREASE OF ACTIVITIES**

Dental Treatment Program of the New Jersey State Department of Health—1939-1949

	1939	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
Number of children treated .....	0	839	2,088	2,846	3,613	5,094	5,732	7,713	8,539	8,782
Number of communities included .....	0	25	59	109	160	171	171	188	189	170
Number of counties included .....	0	2	8	10	16	17	17	17	18	18
Number of mobile units .....	0	0	1	1	2	2	3	3	6	6

During July 1, 1948, to June 30, 1949, 60.7 per cent of the children included in the program were given all necessary fillings and extractions.

### **Migrant Health Program**

(Summer of 1949)

The objective of the Migrant Health Program is to provide "minimal standards of preventive and curative health services for migrant farm workers."

The first clinic for the medical examination of domestic agricultural migrants for the year 1949 was opened July 6th in Orchard Center; later others were opened in Cranbury, Freehold, Gelston Village and Inlaystown. Supervision, supplies and personnel were provided by the Bureau of Preventable Diseases, State Department of Health, in co-operation with the Bureau of Migrant Labor of the Department of Labor and Industry.

#### GENERAL PROCEDURE

The general procedure for all new patients included an inspection of eyes, ears, nose, mouth and throat, and examination of heart, lungs, and blood pressure when indicated. Serological tests for syphilis were taken on all patients between the ages of thirteen and seventy. Women were examined for conditions of the uterus and cervix, and men were inspected for evidence of pathology of the external genitalia. Those persons diagnosed as having early latent syphilis were treated with six million units of procaine penicillin in oil with 2% aluminum monostearate. In both sexes a discharge was presumptive evidence of clinical gonorrhea and the patient was treated with one injection of 300,000 units of penicillin. Cases of pregnancy were referred to the Section of Maternal and Child Health for prenatal care.

Tables indicating clinic activity and administration are appended.

#### CRANBURY CLINIC

This clinic was held in a small house partitioned into three rooms. It was loaned without rental. The building is quite inadequate for this purpose, both as to location and physical conditions.

#### FREEHOLD CLINIC

The County Building at Freehold used as clinic quarters by the Monmouth County Organization for Social Service, furnished the best physical set-up of all the clinics for migrants.

At the final session of the clinic, there were a number of patients who had not yet had a confirmatory serological test for syphilis and a few cases of diagnosed syphilis that had not yet completed the course of treatment advocated. These cases were referred to the Freehold Health Clinic for necessary services.

Children of the migrants in the Freehold area were examined in a Freehold public school. Of the 42 children seen, 10 had hypertrophied tonsils, 8 showed enlarged post cervical glands and 2 had scalp ringworm. Other findings included acute rhinitis, umbilical hernia, enlarged submaxillary glands, and malnutrition.

#### IMLAYSTOWN CLINIC

The building for the migrant clinic in Imlaystown was not easily accessible. It contained adequate space, but no running water, a serious deficiency in any clinic set-up.

#### ORCHARD CENTER AND GELSTON VILLAGE CLINICS

These clinics were run on a full-time basis with two nurses. A physician was in attendance for regular clinics held Monday and Wednesday evenings in Orchard Center and Friday evenings in Gelston Village. These clinics also offered day-time services for minor medical conditions.

Six patients were sent to the Seabrook Infirmary for the ten-day in-hospital penicillin treatment schedule. Others were treated in the clinics.

One patient with a diagnosis of secondary anemia died. She had received several blood transfusions.

#### MIGRANTS FROM OUTSIDE CONTINENTAL UNITED STATES

Puerto Ricans and Jamaicans were located in Glassboro, Seabrook Farms, and the Eastern Division, Bridgeton. Employers of these migrants were responsible to the governments of these migrants for medical services. The Glassboro migrant camp was operated by the Gloucester County Board of Agriculture, a co-operative group of farmers who paid for the personnel, equipment and quarters. Since the migrants in these areas lived on settlements and not on scattered farms as in Monmouth and Mercer Counties, it was possible to offer daily clinic service for minor medical conditions. Because the migrants in the Orchard Center and Gelston Village clinics mentioned migrants of the Eastern Division as contacts of venereal disease, 89 migrants from the Eastern Division were tested for syphilis by our State personnel. There were 9 positive and 5 doubtful cases in this group. They were referred to Seabrook Infirmary for further study.

## GENERAL REMARKS AND RECOMMENDATIONS

1. The question of provision of hospital care should receive further consideration. The Department of Health through Venereal Disease Control funds can pay for in-hospital care of cases of syphilis. Other acutely ill persons without funds find it extremely difficult or even impossible to secure very much needed hospital care.

*Recommendation:*

To make financial arrangements with local hospitals to admit migrants for acute medical and surgical conditions.

2. Although the Migrant Health Program has always stressed the detection and treatment of the venereal diseases, to make a search for chronic diseases such as diabetes, tuberculosis and cancer would increase the public health effectiveness of the migrant program.

*Recommendation:*

To plan a well-rounded multiphasic program for migrant clinics.

3. In all clinics there was a large discrepancy between the number of migrants that presented themselves for examination and the number employed in the area. As stated in P. L. 1945, Chapter 102 (26:4-49:6), each migrant is to be examined for venereal diseases within 30 days of arrival unless he can show evidence of such examination within 90 days prior to entry. This open failure was called to the attention of the Director of the Migrant Labor Board in conference and by memorandum.

In addition, at the end of the migrant season there were a number of patients who had not yet had a confirmatory serological test for syphilis and some cases of diagnosed syphilis that had not yet completed the course of treatment advocated. This was due in part to the fact that the migrants did not realize the importance of this service and were not guided by the farmers.

*Recommendations:*

a. To direct educational efforts toward getting the co-operation of the farmers in sending the migrant to the clinic.

b. To designate one individual to assume full responsibility for sending workers for medical examination and treatment. Confusion results from shifting the duty from employer to crew leader, and vice versa.

4. The building for the migrant clinic in Cranbury is inadequate. Its location was this year away from the center of migrant worker density.

*Recommendation:*

To change the location of the Cranbury Clinic to a more centrally located area.

5. All cases of pregnancy were referred to the Section on Maternal and Child Health. There were 4 hospital deliveries, but no funds were allotted for this service, except in the case of emergencies.

*Recommendations:*

a. To make financial arrangements with local hospitals to admit migrant women for deliveries.

b. To suggest to crew leaders or recruiting bosses in the south that pregnant women remain at home.

TABLE 1—LOCATION AND SCHEDULES, MIGRANT CLINICS, 1949

<i>Clinic</i>	<i>Location</i>	<i>Time</i>
Cranbury	Old Hightstown Road	Monday—8 P. M.
Freehold	County Health Center	Thursday—8 P. M.
Imlaystown	Borough Hall	Friday—8 P. M.
Orchard Center	Seabrook Farms	Monday & Wed.—7 P. M.
Gelston Village	Seabrook Farms	Friday—7 P. M.

TABLE 2—NUMBER OF MIGRANTS AND STATES OF ORIGIN, 1949, CRANBURY, FREEHOLD AND IMLAYSTOWN CLINICS

<i>State</i>	<i>Number</i>	<i>State</i>	<i>Number</i>
Alabama .....	37	New Jersey .....	13
Colorado .....	1	New York .....	6
Delaware .....	1	North Carolina .....	54
Florida .....	644	Ohio .....	1
Georgia .....	243	Pennsylvania .....	5
Indiana .....	1	South Carolina .....	43
Kansas .....	1	Tennessee .....	3
Louisiana .....	5	Texas .....	2
Maryland .....	9	Virginia .....	39
Michigan .....	1	Washington, D.C. ....	1
Mississippi .....	3	Puerto Rico .....	5
	<b>Total—1,118</b>		

TABLE 3—NUMBER OF PERSONNEL\* AND HOURS WORKED, MIGRANT CLINICS, 1949

<i>Clinics</i>	<i>Physicians</i>		<i>Nurses</i>		<i>Clerks</i>		<i>Janitors</i>	
	<i>No.</i>	<i>Hours Worked</i>	<i>No.</i>	<i>Hours Worked</i>	<i>No.</i>	<i>Hours Worked</i>	<i>No.</i>	<i>Hours Worked</i>
Cranbury .....	4	76½	3	80¾	3	76	1	10
Freehold .....	3	54	2	44½	3	58½	1	30
Imlaystown .....	4	67¾	3	77¾	3	48¾	1	13
Orchard Center ...	1	76	2	1,081	0	.....	0	..
Gelston Village ....	1	33	2	186	0	.....	0	..
<b>Totals .....</b>	<b>8*</b>	<b>307¼</b>	<b>7*</b>	<b>1,469½</b>	<b>9</b>	<b>183</b>	<b>3</b>	<b>53</b>

\* Individual physicians and individual nurses employed.

(Physicians and nurses assigned to the Cranbury clinic were also assigned to the Imlaystown clinic; the same personnel worked in both the Orchard Center and Gelston Village clinics.)

TABLE 4—TOTAL EXPENDITURES, ALL MIGRANT CLINICS, 1949

Cost of personnel salaries .....	\$4,374.46
Materials and supplies .....	166.98*
Other services .....	363.94
<b>Totals .....</b>	<b>\$4,905.38</b>

\* Does not include materials available from previous years.

TABLE 5—NUMBER OF PATIENTS AND CLINIC VISITS, MIGRANT CLINICS, 1949

<i>Clinic</i>	<i>No. Patients</i>	<i>Clinic Visits</i>
Cranbury .....	407	642
Freehold .....	415	557
Imlaystown .....	307	482
Orchard Center .....	395	1,413
Gelston Village .....	190	345
<b>Totals .....</b>	<b>1,714</b>	<b>3,439</b>

TABLE 6—NUMBER OF PREGNANCIES AND PREGNANCIES HOSPITALIZED, MIGRANT CLINIC, 1949

<i>Clinic</i>	<i>No. Pregnancies</i>	<i>No. Pregnancies Hospitalized</i>
Cranbury .....	10	2
Imlaystown .....	3	..
Freehold .....	5	..
Orchard Center .....	3	2
Gelston Village .....	2	..
<b>Totals .....</b>	<b>23</b>	<b>4</b>

TABLE 7—CLASSIFICATION OF REPORTED CASES OF VENEREAL DISEASE  
MIGRANT CLINIC, 1949

<i>Clinic</i>	<i>Primary and Secondary</i>	<i>Early Latent Less Than 1 Year</i>	<i>Early Latent Less Than 4 Years</i>	<i>Late Latent</i>	<i>Other Late</i>	<i>Congenital</i>	<i>In Pregnancies</i>	<i>Total</i>	<i>G. C.</i>	<i>Other</i>
Cranbury .....	1	33	29	..	..	..	2	65	16	4
Freehold .....	4	15	16	15	1	..	..	51	46	1
Imlaystown .....	2	25	22	2	..	2	..	53	19	..
Orchard Center .....	..	13	11	2	..	..	..	26	9	..
Gelston Village .....	..	2	..	..	..	..	..	2	2	..
Totals .....	7	88	78	19	1	2	2	197	92	5
Syphilis .....								197		
Gonorrhea .....								92		
Other .....								5		
								294		

TABLE 8—NUMBER OF CASES OF SYPHILIS, MIGRANT CLINIC, 1949

<i>Clinic</i>	<i>No. Cases Treated</i>	<i>Incomplete or No Treatment</i>	<i>Adequate Previous Treatment</i>	<i>*Referrals</i>	<i>Total</i>
Cranbury .....	45	11	9	2	65
Freehold .....	26	4	10	11	51
Imlaystown .....	39	5	5	4	53
Orchard Center .....	26	..	..	..	26
Gelston Village .....	2	..	..	..	2
Totals .....	136	20	24	17	197

\*Late latent cases of syphilis were referred to private physicians; congenital cases of syphilis were referred to the hospital for treatment and a case with a chancroid was referred to the local clinic and later hospitalized for treatment.

TABLE 9—DISEASES AND INJURIES OTHER THAN VENEREAL DISEASES  
MIGRANT CLINICS, 1949

<i>Conditions</i>	<i>Cran- bury</i>	<i>Freehold</i>	<i>Imlays- town</i>	<i>Or- chard Center</i>	<i>Gelston Village</i>	<i>Totals</i>
Allergic, endocrine, metabolic						
Diabetes .....	1	1	..	2	..	4
Thyroid enl. ....	2	..	..	..	..	2
Blood						
Anemia .....	..	..	..	1	1	2
Bones, organs of movement						
Amputated leg .....	1	..	..	..	..	1
Atrophy leg .....	1	..	..	..	..	1
Backache .....	..	..	..	3	..	3
Dislocated thumb .....	..	..	..	1	..	1
Foot infections .....	..	..	..	..	..	..
Foot wounds .....	..	..	..	..	1	1
Hand amputated .....	..	1	..	..	..	1
Lacerations .....	..	1	1	23	9	34
Lacerated middle finger .....	..	..	..	6	1	7
Myositis .....	..	..	..	1	..	1
Infected thumb .....	1	..	..	1	..	2
Sprained ankle .....	1	..	..	1	1	3
Sprained knee .....	..	..	..	1	1	2
Fractured ankle .....	..	..	..	2	..	2
Torticollis .....	..	..	..	1	..	1
Sprained foot .....	..	..	..	3	..	3
Circulatory system						
Cardiac arrhythmia .....	2	..	2	..	..	4
Cardiac enlargement .....	2	..	..	..	..	2
Cardiac murmurs .....	15	..	..	1	..	16
Hypertension .....	3	1	..	1	1	6
Hemorrhoids .....	..	..	..	1	..	1
Heat exhaustion .....	..	..	..	1	1	2
Mitral murmurs .....	1	1	6	1	1	10
Varicocele .....	..	..	1	..	..	1
Varicose ulcer .....	1	1	..	3	1	6
Dental and digestive system						
Dental caries .....	..	4	1	..	..	5
Diarrhea .....	..	..	..	3	..	3
Bilat. ing. hernia .....	..	..	1	..	..	1
Umbilical hernia .....	2	2	..	..	..	4
Inguinal hernia .....	3	..	..	..	..	3
Constipation .....	..	..	..	..	2	2
Gastric ulcer .....	..	..	..	..	1	1
Hernia .....	..	..	..	6	..	6
Stomatitis .....	..	..	..	1	..	1
Malnutrition .....	..	..	..	1	..	1
Indigestion .....	..	..	..	..	1	1
Toothache .....	..	..	..	2	2	4
Totals .....	36	12	12	67	29	156

<i>Conditions</i>	<i>Cran- bury</i>	<i>Freehold</i>	<i>Imlays- town</i>	<i>Or- chard Center</i>	<i>Gelston Village</i>	<i>Totals</i>
<b>Infective and parasitic</b>						
Amebiasis .....	..	1	..	..	..	1
Intestinal parasite .....	..	..	..	2	2	4
Insect bite .....	..	..	..	1	..	1
Measles .....	..	..	..	1	..	1
Tinea capitis .....	..	2	..	..	1	3
Trichophytosis .....	..	..	..	1	..	1
<b>Neoplasms fibroid</b>						
Cystocele .....	..	..	1	..	..	1
Uterine fibroid .....	2	..	1	..	..	3
<b>Nervous system and sense organs</b>						
Arcus Senilis .....	..	2	..	..	..	2
Cataract .....	..	1	..	..	..	1
Conjunctivitis .....	..	1	..	..	1	2
Ecchymosis eye .....	..	1	1	..	..	2
Foreign body of eye .....	..	..	..	1	..	1
Lacrimal cyst .....	1	..	..	..	..	1
Sciatica .....	..	..	..	1	..	1
Strabismus .....	..	1	..	..	..	1
Sightless eye .....	1	..	..	..	..	1
<b>Respiratory system</b>						
Asthma .....	..	..	..	2	2	4
Bronchitis .....	..	..	..	1	1	2
Hyper. tonsils .....	1	5	3	..	..	9
Colds .....	..	..	..	20	6	26
Cervical glands enlg. ....	..	..	..	1	..	1
Coryza .....	1	..	..	..	..	1
Rhinitis .....	..	..	..	..	1	1
Tonsils, infected .....	..	..	1	..	..	1
<b>Skin and cellular tissue</b>						
Abrasions .....	..	..	..	11	1	12
Abscess .....	..	..	..	5	..	5
Burns .....	..	..	..	12	11	23
Boils .....	..	..	..	..	3	3
Dermatitis .....	..	..	..	6	2	8
Forehead, contusion .....	..	..	..	..	1	1
Impetigo .....	..	1	..	..	..	1
Keloids .....	..	..	1	..	..	1
Lacerations .....	2	..	..	23	..	25
Multiple lacerations .....	..	1	..	..	..	1
Nevi .....	..	..	1	..	..	1
Poison oak .....	..	..	..	2	..	2
Poison ivy .....	..	..	..	2	..	2
Vitiligo .....	2	..	..	..	..	2
Warts .....	..	..	..	..	2	2
Totals .....	10	16	9	92	34	161

We wish to acknowledge the fine co-operation given by the staff of the Venereal Disease Control Program and the Section on Maternal and Child Health. The accomplishments are particularly commendable because of the difficult conditions encountered in the clinic and in the follow-up of patients.

We appreciate also the services rendered by the Venereal Disease Clinic at City Hall, Trenton; Monmouth County Organization for Social Service at Freehold; the Mercer and St. Francis Hospital, Trenton; the Middlesex General Hospital, New Brunswick, and the clinic staff and personnel supervisor at Seabrook Farms.

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**Section on Rehabilitation**  
**Crippled Children Commission**  
*ADMINISTRATIVE REPORT*

A fundamental aspect of the responsibility of the Executive Director is to insure promptness in the care and treatment of all crippled children in the State, as far as available facilities permit, and to discover and develop new facilities when current ones are inadequate. This immediately involves the study of each case for whom any service is requested, informing the referring individual or agency of the procedure decided upon, and referring the case to the proper professional personnel for action. If some part of the treatment must be postponed pending general medical advice, the Executive Director confers with Dr. Harold W. Smith, the Medical Consultant. If the problem is one of physical or psychological examination, there is either referral to or conference with the appropriate physician or psychologist. Adequate care of many other cases involves referral to a nurse, the pediatric nursing consultant, the cerebral palsy nursing consultant, a physical therapist or the medical social worker. Through this activity the Executive Director keeps the work constantly in progress.

The conferences mentioned with reference to the fundamental routine work of the Commission are but a small part of the total. All full-time professional personnel attached to the central office are requested to be in that office one day each week in order that they may confer with each other and with the Executive Director. In the case of the professional personnel not attached to the central office, the Executive Director confers with them in the field, either in the office or some clinic that she attends.

Numerous agencies and organizations, both professional and lay, assist in carrying out the work of the Commission. The Executive Director must always be available to confer with the Commissioner of the Department, the Program Director and Director of the Commission, a representative of a service club, the supervisor of visiting nurse associations, or the executive of the National Foundation for Infantile Paralysis.

The work of the Commission is financed through many sources—the Federal, State and County government, and in addition numerous non-governmental agencies. For both the Federal and State funds, the Executive Director must prepare specific detailed plans indicating the financial needs and forward them in time for the officials to study them prior to their appropriation of funds. Regular reports are then sent to the proper officials indicating the actual disposition of funds.

With regard to funds provided by the counties, there must be numerous conferences with the freeholders according to the needs that arise.

*Non-governmental agencies.* Since the founding of the Commission, non-governmental agencies have participated financially in the work and they have, through the years, accepted increased responsibilities, paying for both services and equipment as requested. The Executive Director has frequent consultations with these agencies to acquaint them with both past accomplishments and future needs.

All activities involved in or related to the work so far discussed form the basis of the agenda for each regular Commission meeting. Thus the Crippled Children Commission is constantly informed of the progress of the work. This is supplementary to the plans and reports submitted directly to the State Department of Health for approval.

The Executive Director desires to express her sincere thanks and appreciation to the following who have contributed materially to the success of the program, and without whose assistance we could not have functioned so well:

The Governor and members of the Legislature,  
Members of the Children's Bureau and their staff,  
Members of all co-operating State departments,  
The county boards of freeholders,  
The National Foundation for Infantile Paralysis and their county chapters,  
The National Society for Crippled Children and Adults, Inc.,  
The hospitals and schools which have opened their doors to us,  
The orthopedic, plastic and neuro-surgeons who, since the inception of the Commission, have rendered extensive service without cost, and  
All other co-operating agencies and individuals.

*NURSING DIVISION*

## OUTLINE OF PROGRAM OF NURSING DIVISION

This report is a summary of the work done by the Nursing Division for the fiscal year from July 1, 1948, to June 30, 1949. The Division includes—

- The State Supervisor of Public Health Nurses;
- The six Regional Supervisors of Public Health Nurses;
- The thirty public health nursing agencies, which hold contracts with the Commission.
- Other official and non-official agencies who cooperate by working with the Commission.

## GROWTH OF THE NURSING PROGRAM

During the period covered by this report, the Nursing Program has continued to expand rapidly. A comparison of the work done this fiscal year with that of last year shows a large increase in patients admitted to Nursing Service, and nursing visits made. This increase in cases and visits is due to the further development of the work, by the State Supervisor, the six Regional Supervisors, the continued expansion of the contract service, the growth of the Cerebral Palsy Program and the nursing follow-up of 854 reported cases of acute poliomyelitis. The policy established by the Commission twelve years ago of developing the nursing work through the use of approved local Visiting Nurse Associations and other official and non-official co-operating agencies was continued.

At the beginning of the fiscal year, the Commission held contracts with thirty-one local visiting nurse associations—twenty-seven contracts were renewed and four new local visiting nurse associations were awarded contracts. One contract was cancelled October 1, 1948. The contract service shows an increase of sixty-one municipalities in the territory covered over the previous year. The contract service covered by the thirty agencies includes 322 of the State's 566 municipalities. Of the remaining 244 municipalities, a large number are covered by co-operating agencies. Where no co-operating agency is available, direct nursing service is given by the Regional Supervisor.

Official and non-official agencies who co-operate with the Commission but do not hold contracts have steadily developed their local programs. Our six regional supervisors aid the nurses employed by these agencies by giving them consultation and advisory services and making home visits with their nurses. The Division of Maternal and Child Health of the State Department of Health has included crippled children's services in many rural areas and their supervisors and nurses are now developing local programs with the help and co-operation of our regional supervisors.

In addition, supervisory and consultant services are given to contract and other co-operating agencies by the State Supervisor of Nurses and the consultant staff.

#### JOINT NURSING ADVISORY COMMITTEE

The Nursing Advisory Committee was organized in 1936 for the purpose of advising the Commission on nursing problems. This Committee has functioned for thirteen years and was originally a committee composed of members of the S. O. P. H. N. with representatives from the Commission. Later, the Committee was enlarged to include representation from the New Jersey State League of Nursing Education and was made a joint committee.

During the year the Committee continued to function and gave valuable assistance to the Commission. Two meetings were held, on September, 1948, and April, 1949. At these meetings recommendations were made regarding requirements for scholarships granted by the New Jersey Chapter of the National Society for Crippled Children and Adults, revision and simplification of records and reports, and a study of the cost per visit of contract agencies.

Following the September meeting a study of the cost per visit of the contract agencies was made by the State Supervisor. The results indicated that their average cost per visit was \$1.753 for 1947.

At the April, 1949, meeting the Committee decided that any recommendation based on 1947 costs were not valid in 1949 and recommended to the State Department of Health and the Commission that the present rate of \$1.50 be raised to \$2.00 per visit. The Committee also recommended that the New Jersey Chapter of the National Society for Crippled Children and Adults be asked to underwrite the cost of twenty scholarships for the course entitled, "Orientation to Orthopedic Nursing," which is given at Seton Hall College. The Chairman of the Committee has since been notified by the Chapter that no funds are available for these scholarships.

Other recommendations included the appointment of a special committee including representation from the State Department of Health, the Commission, and the Nursing Advisory Committee to study the nursing record forms, the report forms, and the authorization procedure for the purpose of simplifying them.

The Chairman of the Committee wrote annual reports covering the activities of the Committee for the State Organization for Public Health Nursing and the New Jersey League of Nursing Education. These reports are included in the annual published reports of these organizations.

## NURSING STAFF

During the year the Nursing Staff consisted of a State Supervisor, a Pediatric Nursing Consultant, and a Physical Therapy Nursing Consultant, and six Regional Supervisors. There were no increases in staff and no changes in personnel.

## REPORT OF THE WORK DONE BY THE STATE SUPERVISOR OF PUBLIC HEALTH NURSES

*Summary of Activities*

Supervisory visits to Regional offices .....	87
State Cerebral Palsy Clinics attended .....	6
Conferences and meetings with contract and co-operating agencies .....	12
Interviews and conferences in Trenton office .....	7
Talks and lectures given .....	10
Institutes, conventions and work shops attended .....	5
Other meetings attended .....	28

## COURSE IN ORIENTATION TO ORTHOPEDIC NURSING

To insure competent nursing care for crippled children, the Commission requires that a visiting nurse association must have on its staff a nurse who has had specific training in orthopedic nursing; if this is lacking the agency is not eligible for a contract.

The course in Orientation to Orthopedic Nursing which was given at Seton Hall College in February, 1948, was repeated in February, 1949. The course carries four points of college credit and includes theory and field observation. Nurses completing the course meet the requirements established by the Commission for eligibility for a "Contract for Public Health Nursing Services to Crippled Children." The twelve nurses enrolled for the course all completed it successfully.

In order to acquaint the nurses taking the course with the Commission's services the State Supervisor, Pediatric Nursing Consultant, Physical Therapy Consultant, Psychologist and Medical Social Work Consultant all give lectures to the students. In collaboration with the Regional Supervisors, each student wrote a term paper which consisted of a case study of a crippled child carried by the local agency. One lecture period in which the State and Regional Supervisors participated was devoted to the discussion of some of the case studies.

## SCHOLARSHIPS FOR NURSES

In order to financially assist nurses taking the Orientation to Orthopedic Nursing course, the New Jersey Chapter of the National Society of Crippled Children and Adults granted \$600 for scholarships which covered the cost of tuition for ten students.

A scholarship committee representing the Commission, the Joint Advisory Nursing Committee and Seton Hall College administered and awarded the scholarships. The State Supervisor was chairman of the Committee. Three meetings of this committee were held. Recommended standards for awarding the scholarships were set up by the Joint Nursing Advisory Committee. Letters outlining the requirements for the scholarships were sent to Visiting Nurse Associations throughout the State. Sixteen applications were received for the ten scholarships available. The Committee awarded the ten scholarships to the nurses and agencies who met the established standards. Two other eligible applicants enrolled in the course were veterans and their tuition was paid for under the provision of the G. I. Bill.

The course enabled many of the contract agencies to retain their contracts because it provided them with the necessary qualified nurses when changes in staff would have left the agency without a qualified nurse.

## CONTRACT AGENCIES

During the year the nursing division continued to increase its contract service. On July 1, 1948, 27 contracts were received and one contract was cancelled on September 30, 1948. Four approved public health nursing agencies, covering 67 municipalities were granted new contracts. These agencies were: The Monmouth County Organization for Social Service, which covers the entire county, Bridgeton Red Cross Nursing Service, Cranford Visiting Nurse Association, and the District Nursing Association of Westfield. The contract with the Bloomfield Chapter of the American Red Cross, Public Health Nursing Service, was extended to cover one additional municipality. During the year the Commission held contracts with 30 approved public health nursing agencies covering 322 municipalities instead of the previous 261. The following is a list of the contract agencies listed by counties and the number of municipalities covered.

<i>County</i>	<i>Name of Organization</i>	<i>Municipalities Covered</i>
Bergen	Central Bergen Visiting Nurse Service	28
	Public Health Nursing Out-Patients Dept. of Englewood Hospital	26
	Northern Bergen Nursing Service	6
	Nursing Service, Inc., Ridgewood	7
	Passaic Visiting Nurse Association (covers Garfield and Wallington in Bergen County)	2
Burlington	Moorestown Visiting Nurse Association	4
Camden	Haddonfield Visiting Nurse Association	9
	Merchantville-Pennsauken Visiting Nurse Association	2
Cumberland	*Bridgeton Chapter, American Red Cross Nursing Service	11
Essex	Bloomfield Red Cross Nursing Service	2
	Newark Visiting Nurse Association (cancelled 9-30-48)	
	Nutley Red Cross Nursing Service	1
	Visiting Nurse Association of Millburn Township	1
	Visiting Nurse Association of the Oranges and Maplewood	5
	West Essex Chapter, American Red Cross, Public Health Nursing Service	9
Gloucester	Visiting Nurse Association of Woodbury, Inc.	7
Hudson	Bayonne Visiting Nurse Association	1
	Hoboken Chapter of the American Red Cross, Public Health Nursing Service	1
Hunterdon	Hunterdon County Public Health Association	26
Mercer	Trenton Visiting Nurse Association	34
Middlesex	New Brunswick Visiting Nurse Association	12
Morris	Morristown Visiting Nurse Association	34
Monmouth	*Monmouth County Organization for Social Service, Inc.	51
Somerset	Community Service Society of Bound Brook	6
	Visiting Nurse Association of Somerset Hills	8
Union	*Cranford Visiting Nurse Association	3
	Visiting Nurse Association of Eastern Union County	9
	Rahway Chapter of the American Red Cross	2
	*Public Health Nursing Service, District Nursing Association of Westfield	2
	Summit Chapter of the American Red Cross, Public Health Nursing Service	3
	Visiting Nurse Association of Plainfield and North Plainfield	10
	Totals	322

\* New agencies awarded contracts July 1, 1948.

## STAFF EDUCATION AND IN-SERVICE TRAINING

During the year the State Supervisor held individual monthly conferences with each Regional Supervisor.

One Regional Supervisor was granted a stipend by the commission for one semester of study at Seton Hall College. She completed her studies in June, 1949, and was granted a Bachelor of Science degree with a major in public health nursing. During her absence the relief supervisor was assigned to this region.

The State Supervisor attended two all-day sessions of the "First International Conference on Poliomyelitis" held in New York City, a two-day workshop in "Methods of Computing a Cost Study of Public Health Nursing," and a cerebral palsy institute sponsored by the New Jersey Chapter of the National Society of Crippled Children and Adults.

During the year the State Supervisor served on the following committees:

Chairman—Program Committee of the State Organization for Public Health Nursing;

Joint Nursing Advisory Committee of the State Organization for Public Health Nursing;

Chairman—Scholarship Committee of the Joint Nursing Advisory Committee of the State Organization for Public Health Nursing;

Health Committee of the New Jersey Welfare Council.

## STUDY OF THE COST PER VISIT OF CONTRACT AGENCIES

At the request of the Executive Director, the State Supervisor made a survey of the cost per visit of the 31 contract agencies. The survey was done in 1948 and covered the 1947 cost per visit of the agencies. Twenty-nine of the thirty-one agencies replied. The average cost per visit of the twenty-nine agencies was \$1.753.

## INCREASE IN CASES ADMITTED TO NURSING SERVICE

A comparison of this year's work with that of last year shows that there is an increase of 1,131 cases admitted. There was an increase of 742 cases admitted through direct service given by Regional Supervisors, and 389 cases admitted through the contract service.

*Cases*

New cases admitted to nursing service through direct service given by Regional Supervisors .....	1,002	
New cases admitted to nursing service through authorizations issued to contract agencies .....	1,263	
		2,265
Total—New cases .....		2,265
Re-admitted cases, admitted to nursing service through direct service given by Regional Supervisors .....	895	
Re-admitted cases, admitted to nursing service through authorization issued for nursing visits .....	2,087	
Total—Re-admitted cases .....		2,982
		5,247
Total cases admitted .....		5,247
Total increase over previous year .....		1,131

INCREASE IN NURSING VISITS

The nursing visits increased by 1,590 in comparison to the previous year. The Regional Supervisors made 915 more visits and the contract agencies 675 more visits.

*Nursing Visits*

Nursing visits through direct service by Regional Supervisors .....	3,227	
Nursing visits made by authorized contract agencies .....	5,573	
Total—Nursing visits .....		8,800
Increase over previous year .....		1,590

The above visits do not include the many free visits made by contract and co-operating agencies, which were not paid for by the Commission.

State Clinics attended by Regional Supervisors:

Cerebral Palsy .....	41
Rheumatic Fever .....	36

SUPERVISORY VISITS

The Regional Supervisors made 226 supervisory visits with nurses employed by contract and other co-operating agencies. These visits are not included in the above report of visits.

*Educational and Supervisory Work of the Regional Supervisors*

Case conferences, box conferences, and supervisory visits held at the offices of the contract visiting nurse associations .....	68
Case conferences, box conferences, and supervisory visits to co-operating agencies who do not hold contracts with the Commission .....	99
Conferences and interviews at hospitals, clinics, convalescent homes and schools ...	27
Talks and lectures given .....	40
Meetings, institutes, and conferences attended .....	97

All Regional Supervisors attended two days of the three-day annual convention of the three State nursing organizations which was held in Asbury Park in October, 1948, and one day of the two-day Spring Institute on Crippled Children sponsored by the New Jersey Chapter of the National Society for Crippled Children and Adults.

#### COURSES IN POLIOMYELITIS

One of the Regional Supervisors gave two 4-day institutes on poliomyelitis. These institutes were sponsored by the Essex County Chapter of the National Foundation for Infantile Paralysis, the Newark Health Department, and the Commission.

Classes were given at St. Michael's Hospital, Newark, and Essex County Isolation Hospital, Belleville. The first course was given on August 16-17-18-19, and 22 nurses were enrolled. The second course was given on September 13-14-15-16, and 24 nurses were enrolled. The registrants included nurses from hospitals, the Newark Health Department, and local visiting nurse associations.

The course included lectures by physicians, orthopedic surgeons, a psychologist and State Consultants. The Regional Supervisor gave lectures, illustrated by slides, demonstrations of nursing care, including hot packs and supervised practice periods. The topics of the lectures included :

1. Pediatrician's role in the care of poliomyelitis.
2. Orthopedist's role in acute and convalescent care of poliomyelitis.
3. Epidemiology.
4. Medical treatment of the acute poliomyelitis patient.
5. Pediatric nursing.
6. Kinesiology and anatomy review.
7. Slides on polio care.
8. Nursing care of acute poliomyelitis.
9. Re-demonstration of hot packs by groups.
10. Practice period.
11. Psychological needs of child, family, and community.
12. The role of the occupational therapist in the care of the poliomyelitis patient.
13. Local and State resources and the role of public health nurse—follow up in homes, schools, and rehabilitation.
14. Physical therapist's role in care of acute poliomyelitis.
15. Demonstration and re-demonstration of nursing care of the patient.

## IN-SERVICE TRAINING PROGRAMS FOR CONTRACT AGENCIES

Two of the Regional Supervisors planned and participated in in-service training programs for the following four visiting nurse associations:

- Visiting Nurse Association of Plainfield and North Plainfield.
- Visiting Nurse Association of Somerset Hills.
- Trenton Visiting Nurse Association.
- New Brunswick Visiting Nurse Association.

One in-service training program was given jointly by two Regional Supervisors. The other Regional Supervisor conducted the other three programs; guest speakers and the State Consultant Staff participated.

The programs consisted of a series of 6 to 9 lectures which included the following topics:

1. Definition of a crippled child as accepted by the New Jersey State Department of Health, Crippled Children Commission, Orthopedic Terminology.
2. Inspection of the new-born infant for orthopedic and plastic deformities. Birth report slip discussed.
3. Talk on cerebral palsy illustrated by slides.
4. Interpretation of cerebral palsy clinic examination report and the recommended procedure for carrying out the doctor's orders. Discussed completion of forms for securing care.
5. Discussion of handedness testing, applied to cerebral palsy cases.
6. Talk on arthritis, osteomyelitis and bone tuberculosis.
7. Plastic surgery, illustrated by slides.
8. Talk on scoliosis.
9. Posture, good and poor, scoliosis, crutch walking, illustrated by slides.
10. Speech therapy for the handicapped.
11. Psychological testing.
12. Kenny hot pack demonstration.
13. Social services for the crippled child.

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*MEDICAL SOCIAL SERVICE DIVISION*

*A. History.*

Since 1937 there has been a standing medical social service committee under the sponsorship of the New Jersey Group of the North Atlantic District, American Association of Medical Social Workers, which has acted in an advisory capacity to the Commission in reference to recruitment and procurement of medical social workers for the Commission. This committee has given invaluable assistance to the Commission in regard to training and qualifications of applicants for the position of medical social worker.

In May, 1941, the first medical social worker was appointed to the position of State Supervisor of Medical Social Work. While working in the Commission, she completed a survey of hospitals and medical social work agencies in the State. This worker also gave direct service in individual case situations, consultation services to members of the Crippled Children Commission staff regarding social needs of the crippled child, and interpreted to the community social agencies the social needs of the crippled child. In August, 1942, this worker left to join the American Red Cross and it was with appreciation of the motives, as well as with regret, that the Commission accepted her resignation.

From that date the Commission was without the services of a medical social worker until September, 1946, when a full-time qualified medical social worker, who met the requirements of the National Association of Medical Social Workers, was employed by the Commission in the capacity of medical social consultant. The Commission has had the services of a medical social work consultant to the present date with the exception of the months from September, 1948, to January 1, 1949.

B. *The Role of the Medical Social Consultant.*

The functions of the Medical Social Consultant are as follows:

1. To act in a consultant capacity to members of the Commission staff, contract public health agencies, members of social service departments of hospitals, and members of social and welfare agencies throughout the state, with reference to the medical social problems presented by any crippled child eligible for care under the Crippled Children Commission.
2. To give direct case work service to children registered in the rheumatic fever program, make financial arrangements for admission of the children to the acute rheumatic fever unit, and work as a member of the team consisting of the physician, the pediatric nursing consultant (who is the co-ordinator of the rheumatic fever program), the public health nurse and the medical social consultant to the rheumatic fever clinic.
3. To give direct case work services to other children coming under the care of the Commission as indicated, either in communities where there are no available agencies to which the case may be referred, or make plans for social agencies to take over the responsibility of these cases.
4. To assist in the co-ordination and organization of community activities throughout the state for provision of better facilities for meeting the medical social needs of crippled children. This is accomplished through participation by the medical social consultant in conferences with various groups, both lay and professional, which are concerned with the crippled child. Various related agencies are included in the plan.

C. *Methods of Procedure.*

Method of referral of cases to the medical social consultant is as follows:

1. A call is made by nurse in the contract agency, reported to the regional supervisor, who in turn refers the problem to the medical social consultant. Copy of this referral is sent to the state supervisor of nurses.
2. Referral also may be made directly to the medical social consultant by other members of the Commission, contract public health agencies, hospital social workers, private or public social agencies, child guidance clinics, or other community agencies. A copy of the referral, giving details, is sent by the medical social consultant to the regional supervisor in the area. Copies of all referrals coming directly to the medical social consultant are sent to the state supervisor of nurses together with any pertinent details, except in cases of children who are cared for in the rheumatic fever program. In these, copies are sent to the pediatric nursing consultant.

D. *Reporting of Medical Social Consultations, Keeping of Records and Activity Reports.*

The method of reporting, keeping records and activity reports has not been changed since 1947.

E. *Follow-up of Medical Social Work.*

Responsibility for follow-up of cases referred to the medical social consultant remains with the regional supervisor in whose district the child lives unless otherwise designated by the medical social history. In certain specific cases disposition may be either referral to psychiatric or private family case work agencies, and public agencies, with the understanding that reports of case work progress be returned by that agency to the regional supervisors or to the medical social consultant who is in contact with the regional supervisors. Case conferences with other social agencies are held as indicated with the medical social consultant of the Commission, regional supervisors of the Commission and the social workers of the other agencies attending.

F. *Activities During the Year.*

1. Activities concerned with the individual child.
  - a. The medical social consultant has continued to give consultation service to the other members of the staff and to social agencies concerned with the individual child.
  - b. As mentioned under "B," "The Role of the Medical Social Consultant," the medical social consultant has functioned in the rheumatic fever program by attending the rheumatic fever clinics, being present at most clinic conferences regarding specific situations with members of the Commission staff as well as members of social agencies interested. She must also be responsible for making financial arrangements for admission of patients to the acute unit, and in planning for convalescent care.

- c. Due to the success of the group counselling sessions started in 1947, further sessions have been held. The medical social consultant has joined with the psychologist of the Commission in a series of six sessions with mothers of cerebral palsied children. The sessions are now being written up and will be published shortly. The sessions have been so successful that requests from other cerebral palsy leagues throughout the state have been received by the Commission staff to conduct further counselling sessions, not only with mothers, but also with fathers of children with cerebral palsy.
  - d. Types of medical social problems presented.
    - (1) Failure to follow through on medical recommendations.
    - (2) Marital friction.
    - (3) Rejection by one or both parents.
    - (4) Problems of behavior, such as delinquency, stealing, truancy, etc.
    - (5) Inadequate housing.
    - (6) Need for arrangement for discharge plans or convalescent care.
    - (7) Personality difficulties.
    - (8) Need for financial relief.
    - (9) Need for psychological examination referral.
    - (10) Problems indicating need for psychiatric treatment.
    - (11) Need for institutional placement.
    - (12) Need for foster home care.
    - (13) Need for limitations in mode of living.
    - (14) Disability due to illness.
    - (15) Alcoholism.
2. Community Activities.

In addition to services directed to the needs of the individual child, the medical social consultant has attempted to assist in the co-ordination and organization of community activities throughout the state toward better facilities for meeting the social needs of the crippled child. Toward this end the consultant has participated in conferences and discussions with various social agencies throughout the state in an attempt to interpret the program of the Commission and has asked for the assistance of these agencies in working co-operatively with members of the Commission staff on individual cases. The response of the agencies has been most gratifying, and their co-operation, both in accepting referrals from the Commission staff and in working co-operatively with members of the staff has been of great service to children registered by the Commission.

An important activity of the medical social consultant is lecturing to both student and graduate nurses on medical social work and the activities of the medical social work consultant in the Crippled Children Commission. The medical social consultant employed by the Crippled Children Commission participated in the activities of the New Jersey Welfare Council, the New Brunswick Welfare Council, the American Association of Social Workers and the American Association of Medical Social Workers. Some of the meetings of the Cerebral Palsy League of New Jersey and the Mercer Social Workers' Club were attended.

G. *Summary of Activities.*

Total cases carried .....	197
Clinic interviews .....	97
Office interviews .....	66
Consultations with staff members of Commission .....	185
Home visits .....	23
Visits to schools and social agencies .....	8
Visits to hospitals and convalescent centers .....	9
Days in cerebral palsy units .....	5
Clinics attended—cardiac .....	23
Clinics attended—cerebral palsy .....	15
Trenton office .....	47
Newark office .....	46
Field .....	43
Speeches made .....	6
Meetings attended .....	5
Conferences and round tables attended .....	47

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*CEREBRAL PALSY DIVISION*

In writing an Annual Report for the Cerebral Palsy Program, one cannot help but think about the emphasis that is being placed on the care and treatment of this condition. We, in New Jersey, can feel very proud that this State pioneered in a program for the treatment of cerebral palsy and established the pattern which most other States are following in the management of their programs.

In the developmental progress of the program, great strides have been made in maintaining the public health aspect, that is a well-rounded program and co-ordination of services. A few of the strides that we might mention are: increased understanding and follow-through in nutrition, better dental care and eye examinations and improvement in the understanding of the educational needs for these children.

During the past fiscal year, we have continued to hold medical diagnostic and re-examination clinics State-wide, according to the geographic needs. These clinics meet the needs of the cerebral palsied and also serve as an educational factor. People invited to the clinics include doctors working in the area where the clinic is held and also other interested professional personnel. The examining doctor discusses the condition, examination, and recommendations. The regional nurses and physical therapists also attend the clinic and present their progress reports on the cases.

During the past fiscal year, forty-eight medical clinics were held in various parts of the State. The policy for the medical clinic is as follows:

Provide medical diagnostic services and recommendations for treatment for cerebral palsy cases.

- (a) Any child between the age of birth and 21 years is eligible for consultation examination or re-examination.
- (1) First examination shall be made only on approval of private physician or medical clinic treating child.
  - (2) Re-examinations are made when necessary unless the child is under private medical care; in this instance, re-examination is done only on request of the doctor concerned.

The location of the clinics and the number seen is as follows:

<i>Date</i>	<i>Place Held</i>	<i>No. New Examinations</i>	<i>No. Re-examinations</i>
7/8/48	School No. 10, Passaic, N. J. ....	15	2
7/9/48	School No. 10, Passaic, N. J. ....	7	6
7/16/48	C. P. Unit, Long Branch, N. J. ....	4	12
7/23/48	C. P. Unit, Trenton, N. J. ....	3	10
8/5/48	West Jersey Hospital, Camden, N. J. ....	6	8
8/13/48	C. P. Unit, Trenton, N. J. ....	6	2
8/20/48	General Hospital, Perth Amboy, N. J. ....	6	10
8/27/48	C. P. Unit, Long Branch, N. J. ....	10	1
9/9/48	C. P. Unit, Long Branch, N. J. ....	5	10
9/10/48	Memorial Hospital, Morristown, N. J. ....	9	9
9/17/48	C. P. Unit, Passaic, N. J. ....	11	1
9/24/48	St. Michael's Hospital, Newark, N. J. ....	9	4
10/1/48	C. P. Unit, Trenton, N. J. ....	3	10
10/7/48	A. Harry Moore School, Jersey City, N. J. ....	0	22
10/8/48	A. Harry Moore School, Jersey City, N. J. ....	11	5
10/29/48	C. P. Unit, Passaic, N. J. ....	1	19
11/4/48	Arlington Ave. School, Newark, N. J. ....	1	20
11/5/48	St. Michael's Hospital, Newark, N. J. ....	10	11
12/3/48	C. P. Unit, Long Branch, N. J. ....	5	12
12/10/48	Alexian Brother's Hospital, Elizabeth, N. J. ....	9	5
12/16/48	West Jersey Hospital, Camden, N. J. ....	13	2
12/17/48	West Jersey Hospital, Camden, N. J. ....	11	8
1/7/49	C. P. Unit, Passaic, N. J. ....	11	5
1/14/49	C. P. Unit, Passaic, N. J. ....	0	15
1/20/49	C. P. Unit, Trenton, N. J. ....	10	11
1/21/49	C. P. Unit, Trenton, N. J. ....	12	9
1/28/49	C. P. Unit, Trenton, N. J. ....	0	4
2/4/49	St. Michael's Hospital, Newark, N. J. ....	1	14
2/10/49	C. P. Unit, Camden, N. J. ....	6	12
2/11/49	C. P. Unit, Camden, N. J. ....	3	9
3/4/49	Holy Name Hospital, Teaneck, N. J. ....	6	11
3/11/49	Christopher Columbus School, Elizabeth, N. J. ...	3	12
3/25/49	A. Harry Moore School, Jersey City, N. J. ....	4	21

<i>Date</i>	<i>Place Held</i>	<i>No. New Examinations</i>	<i>No. Re-examinations</i>
4/1/49	C. P. Unit, Trenton, N. J. ....	9	13
4/8/49	C. P. Unit, Elizabeth, N. J. ....	5	7
4/21/49	C. P. Unit, Long Branch, N. J. ....	1	17
4/22/49	C. P. Unit, Long Branch, N. J. ....	5	12
4/29/49	Betty Bacharach Home, Longport, N. J. ....	11	6
5/5/49	Hospital for Crippled Children, Newark, N. J. ..	18	8
5/6/49	Branch Brook School, Newark, N. J. ....	1	26
5/13/49	Passaic Unit, Passaic, N. J. ....	0	19
5/20/49	C. P. Unit, Newton, N. J. ....	8	7
5/27/49	C. P. Unit, Trenton, N. J. ....	1	26
6/3/49	St. Michael's Hospital, Newark, N. J. ....	5	10
6/10/49	C. P. Unit, Camden, N. J. ....	7	8
6/17/49	Paterson General Hospital, Paterson ....	7	9
6/23/49	Holy Name Hospital, Teaneck, N. J. ....	7	16
6/24/49	St. Michael's Hospital, Newark, N. J. ....	5	13
<b>Total</b> .....		<b>301</b>	<b>502</b>

The Physical Therapy Treatment Centers are in the following locations:

*Camden Unit*—Bonsall School, Mt. Ephriam Avenue, Camden, N. J.

*Trenton Unit*—Junior School No. 2, Cuyler Avenue, Trenton, N. J.

*Long Branch Unit*—Garfield Court, Rockwell Avenue, Long Branch, N. J.

*Passaic Unit*—School No. 10, Harrison Street, Passaic, N. J.

*Newton Unit*—Sussex County Service Building, Church Street, Newton, N. J.

The policy for admission to the Physical Therapy Treatment Center is as follows:

Any child between the ages of birth and 21 years is eligible, on a parent-instruction basis, who have treatment recommendations prescribed by doctors on the State Cerebral Palsy Program and has the consent of his family physician.

The aim of treatment is to help the individual become a useful member in society and live the type of life for which he is capable. By learning the treatment procedure, parents are acquainted with the nature of cerebral palsy and are able to care for their child's needs and help him to develop mentally and physically.

Patients are admitted for treatment whose handicaps vary from gross disabilities to minor disabilities. A gross disability is one in which the patient has not developed head balance, sitting balance or standing balance, the tongue is involved and arm function is poor. A minor disability might involve only two muscles of a leg, causing a limp of the affected leg. Potentially, these children have the ability to learn to use their arms and legs, and to speak. Through the persistence and understanding of qualified therapists, the cerebral palsied can be rehabilitated.

It is advantageous to start a youngster under treatment at as early an age as possible. In this way, he can be helped to follow the more normal pattern of growth and development and live a more normal life. However, this does not mean that a patient 20 years of age cannot benefit from treatment. We have had several patients from 18 to 20 years of age who were wheel chair patients who, until they appeared at our unit, had not had any treatment, and within six months they had learned to get about with crutches.

It has been very gratifying to observe improvement in patients since the opening of the out-patient units. The co-operation of parents and their increased adjustment to the handicapped condition of their children is also very noteworthy of mention. Graphs are kept on each patient to show their rate of progress. While progress may seem very slow, graphs indicate that once the pattern for a certain motion is learned, progress is fairly rapid. However, it is frequently necessary to work six months to a year before a pattern of motion is learned or the idea of the motion even grasped.

Each patient at the treatment centers is examined on the average of every three to six months by the doctors on the Cerebral Palsy Program. Method of treatment, brace adjustments and equipment used at home is all worked out in co-operation with the doctor and professional staff giving direct service to the case.

On November 19th, a Counseling Session was held at the Long Branch Unit. The morning session was devoted to nurses and the afternoon session was for parents. Dr. Keats discussed Cerebral Palsy and a question period followed a round-table discussion in which the doctor, the physical therapist, the pediatric consultant and the cerebral palsy co-ordinator participated. The results were very satisfactory. This program was repeated in Elizabeth on February 25th and it also was successful.

The Cerebral Palsy Co-ordinator attended meetings of The Conference for Handicapped Children held at the State Teacher's College in Newark. There were five meetings during the year and the Co-ordinator was in the group studying legislation for handicapped children.

In October, 1948, the Co-ordinator opened the Cerebral Palsy Treatment Center in Newton and has been treating patients for two days each month since that time. This has helped considerably to stimulate more interest and understanding in an area that has been very distant from such treatment facilities.

The Co-ordinator wrote an article, "Helping the Cerebral Palsied Under the State Crippled Children Section of the State Health Department," which was published in the June issue of the Public Health News and the State Department of Education Magazine.

Many visits were made to treatment centers under the auspices of Parent's Groups to help the therapists set up their program and develop a public health aspect.

The aim of the program this past year has been to increase the general understanding of cerebral palsy and help organizations to realize that these children belong to their respective communities and should be a part of the organization of them. In this coming year, we shall endeavor to continue this aim and enlarge on it by having local organizations carry their responsibilities and develop needed treatment facilities supplemented by the State Program when necessary.

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### *PEDIATRIC NURSING*

Since the inception of the Federal Social Security Act in 1935, which provides funds for care of the physically handicapped and crippled child, there has been an increasing awareness by the Executive Director of the Crippled Children Program, of the importance of "total care" for crippled children, as well as consideration of the physical needs of the handicapped child. The New Jersey Crippled Children Commission, realizing that "total care" implies hospital care, clinic services, continuous follow-up care, and supervision, which considers the child's physical, social, mental, and emotional needs, a former regional supervisor who qualified for admission to the Advanced Program in Pediatric Nursing at the Boston University School of Nursing was granted an educational leave on a federal stipend.

The Pediatric Nursing Consultant has been functioning with the Crippled Children Program for two years.

1. Co-ordination of the Rheumatic Fever Program.
2. The Commission was without the services of a medical social worker from September, 1948, until January, 1949. The work of the medical social worker was done by the Pediatric Nurse Consultant.
3. To act in a consultant capacity to members of the Commission Staff, contract public health agencies, Pediatric Nursing Staff of hospitals, and convalescent centers, and members of social and welfare agencies throughout the State with reference to the pediatric nursing problems presented by a crippled child eligible for care under the Crippled Children Program.
4. To provide general management of the Rheumatic Fever Clinic by supervision of the nurses, volunteer and clerical staff, for setting up clinic, routing of patients, and arranging for utilization of special consultant's services.
5. To assist in carrying out the physician's recommendations by interpreting these to the patient and the parents.

6. To provide the physician with information regarding the patient and family.

7. To guide the patient and his family on general health matters and to refer the patient for follow-up nursing service if indicated.

8. To assist the family in securing other services such as those related to education, social welfare, recreational, occupational therapy, and vocational rehabilitation.

Method of referral of cases to the pediatric nursing consultant is as follows:

1. Referral is made by the seven physicians in the Rheumatic Fever Clinic and Pediatric Staff of St. Michael's Hospital and by the contract nursing agencies.

2. Referral may also be made directly to the Pediatric Nursing Consultant by other members of the Commission, the Executive Director, Psychologist, Cerebral Palsy Physical Therapist Nurse Consultant, Orthopedist, Regional Nursing Supervisors, and other interested individuals.

#### COMMUNITY ACTIVITIES ON BEHALF OF THE PEDIATRIC NEEDS OF THE CHILDREN REGISTERED UNDER THE CRIPPLED CHILDREN'S COMMISSION

In addition to services directed to the needs of the individual child, the Pediatric Nursing Consultant has attempted to assist in the co-ordination and organization of community activities throughout the State toward better facilities for the care of the crippled child. This has been accomplished by participation in conferences, meetings, and educational programs throughout the State. This group can be divided into two main classifications—the professional agencies such as public health nursing agencies and hospitals; and lay groups. Educational material was distributed to public health nursing agencies.

1. Bibliography on rheumatic fever and rheumatic heart disease.

2. With the co-operation of the psychologist, the pediatric nurse consultant prepared "Principles of Discipline for Children," with bibliography for distribution to public health nursing agencies, pediatric wards in hospitals, convalescent homes, etc.

3. A guide for the evaluation of a county.

4. A guide for the evaluation of the pediatric unit in a hospital or convalescent center.

The pediatric nursing consultant has continued to co-operate with the cerebral palsy nurse consultant and act as part of the team on counseling sessions with parents. The following talks have been given on crippled children's services or the pediatric aspect of care to the following groups:

The New Jersey League of Nursing Education, Newark U. O. T. S. League, Pediatric Students of Monmouth Memorial Hospital, New Jersey

Tuberculosis League, Women's Auxiliary to the Medical Society of New Jersey, Eastern Union County Visiting Nurse Association, New Jersey State Organization for Public Health Nursing, Maternal, Infant, and Pre-school Sections, the National Institute for Infantile Paralysis in two sessions, Seton Hall College, School of Nursing, the Social Welfare Council of Orange and Maplewood, Parent's Group of Cerebral Palsy.

The following conferences were held with the New Jersey Chapter of the National Society for Crippled Children and Adults and the National Foundation for Infantile Paralysis: The New Jersey Council of Handicapped Children, the Essex County Heart Committee of the Essex County Medical Society, Bergen County Medical Society, the New Jersey Heart Association, North-eastern Regional Conference of Children's Bureau. Many additional services have been added to include the "total care" of children to the Pediatric Ward at St. Michael's Hospital, such as a teacher, library service, and parents' participation.

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#### *RHEUMATIC FEVER PROGRAM*

The Rheumatic Fever Project of the Crippled Children Commission of the State Department of Health has continued to function as a demonstration unit and clinic at St. Michael's Hospital, Newark, New Jersey. Adhering to the original policy of establishing a service for Essex County for children from birth to 21 years of age who suffer from rheumatic fever, rheumatic heart disease, acquired heart disease or congenital heart disease. Additional services have been made available to the patients in the unit and the clinic.

A weekly out-patient clinic and in-patient service of ten to twenty beds or more has been maintained according to the original plan.

The Crippled Children's Commission provides the services of the Pediatrician Director, the Pediatric Nursing Consultant, Public Health Nursing Supervisor, Medical Social Consultant, Secretary, and Consulting Psychologist. They also provide hospitalization, convalescent care, and clerical services and equipment. Clinic fees are also paid for the patients in the Rheumatic Fever Unit. Medical supervision of the Clinic in the in-patient unit is the responsibility of the Pediatrician Director. He is assisted by the Pediatric and Medical staff of St. Michael's Hospital.

The rest of the professional staff is supplied by St. Michael's Hospital. A department of Angiocardiology has been established for the accurate X-ray diagnosis of Congenital Heart Disease. This service is now available for a limited number of selected patients. This has resulted in an increase in the number of patients with Congenital Heart Disease seen in the Clinic. This year we were able to meet one of the needs of the Rheumatic Fever Pro-

gram by opening and operating a Dental Clinic for the rehabilitation of the mouth of patients being treated at the Rheumatic Fever Clinic. This Clinic functions weekly on the same day as the Rheumatic Fever Clinic. Services are furnished by the dentists attached to St. Michael's Hospital staff and the equipment for the Dental Clinic was given to the hospital by Mr. Harry Schram, who is particularly interested in Rheumatic Fever. A Prophylaxis Procedure has been outlined by the Pediatrician Director and the Cardiologist for these children. Copies are available on request.

The Clinic has incorporated a new detailed Pediatric Health Appraisal History Form as a substitute for page one of the American Heart Association blanks. This form has been approved by the American Heart Association. A copy of this form is available on request. Plans for Nutrition Consultation Service to be made available to the Clinic have been discussed with the nutritionists of the State Department of Health and consultation service on two patients has been provided to us. A Nutritional Educational Display on nutrition has been prepared for the Dental Clinic and the Rheumatic Fever Clinic.

The Clinic Procedure co-ordination and follow-up work is the responsibility of the Pediatric Nursing Consultant who acts in a dual capacity as co-ordinator for the Rheumatic Fever Program.

#### I. CASE FINDING

##### A. Private Referrals

1. Physicians
2. Social Agencies
3. Welfare Department
4. Clinics
5. Hospitals
6. Health Department
7. State Agencies
8. Schools
9. Interested Individuals

#### II. FIRST VISIT

##### A. Admission Procedure

1. Appointment letter sent to the family.
2. Urgent admissions through physician and nursing referrals.
3. Interview by Pediatric Nursing Consultant or Medical Social Worker.
4. Patient is turned over to the clinic nurse.
5. The weight is taken uniformly with shoes off.
6. Height is taken with child standing erect; back to rod.
7. Temperature, rectal.
8. Pulse—respiration taken in the supine position.
9. Blood pressure is taken in the supine position.
10. Patient then goes to the doctor with preliminary record.
11. Complete physical examination.
12. Acutely ill patients are admitted to the Rheumatic Fever Unit on the Pediatric Ward.

13. Subacutely ill patients:
  - a. Complete blood count and hemoglobin determination.
  - b. Erythrocyte sedimentation rate.
  - c. Urinalysis.
  - d. Appointment made for electrocardiographic study.
  - e. Patient returns to the Pediatric Nursing Consultant or Medical Social Worker where an appointment is given for return visit and staff evaluation.
14. With the preliminary information obtained from the first visit, a case history is established. The folder contains the physical findings, American Heart Association sheets 1, 2, 3, laboratory reports, and any other information pertinent to the case, such as medical transcripts, reports from agencies or hospitals.

### III. EVALUATION OF THE HOME ENVIRONMENT

- A. Case is referred to one of our contract public health nursing agencies and a public health nurse makes a home visit to determine:
  1. The physical facilities for care of the child.
    - a. Child's own room and bed.
    - b. Convenient bathroom and toilet.
    - c. Architectural barriers.
    - d. Economic and cultural level. Educational background.
    - e. Family and child relationship.
    - f. School facilities.
    - g. Nutrition and health habits.
    - h. Surveying the health needs of the family for future health education.
  2. A report is sent by the public health nurse to the Pediatric Nursing Consultant on the findings of the visit. The report is incorporated in the case history and referrals are made, if indicated, to a social agency, Board of Education, Mental Hygiene Clinic, or other agency.

### IV. SECOND VISIT

- A. Patient again has temperature, pulse, respiration, height, weight, blood pressure taken, which is hereafter routine clinic procedure.
- B. Patient's case history and laboratory findings are discussed by the Pediatrician, the examining Physician, and also the Cardiologist. (Patient is not present during this discussion.)
- C. The patient is then re-examined and fluoroscoped by the Staff.
- D. Findings and recommendations are dictated into the record by the Pediatrician.
- E. Interpretation to the parent is made by the Pediatrician and the Pediatric Nursing Consultant and Medical Social Worker.
- F. If there is a diagnosis of rheumatic fever, educational material is given to the family.
- G. Necessary referral to eye, ear, nose and throat, and pediatric clinic are made.
- H. Authorizations are issued for nursing visits for nursing care, health education and whatever other health services have been included in the recommendations.
- I. A letter is sent to the family at this time for an appointment; slips for laboratory tests such as Sedimentation Rates, Electrocardiograms, C. B. C., etc., are attached to the letter.

- J. If the family does not respond to two appointment letters, the case is reviewed and a nursing authorization is sent to a public health nursing agency requesting them to visit the home and check the status of the case.
- K. All cases where private physicians have been a source of referral, a copy of the report of the first visit and the staff evaluation is sent to him routinely.

## HOSPITALIZATION—1949

<i>Bed Days</i>		<i>Convalescing Days</i>	
<i>Month</i>	<i>No.</i>	<i>Month</i>	<i>No.</i>
July .....	264	July .....	124
August .....	130	August .....	206
September .....	220	September .....	127
October .....	133	October .....	181
November .....	143	November .....	150
December .....	367	December .....	155
January .....	350	January .....	186
February .....	212	February .....	168
March .....	359	March .....	168
April .....	291	April .....	260
May .....	128	May .....	158
June .....	547	June .....	123
	3,144		2,006

The in-patient unit on the Pediatric Ward at St. Michael's Hospital has continued to have all of the services of the Pediatric and Medical Staff. The Pediatric Staff makes daily rounds and the cardiologists make grand rounds twice a week. The Pediatrician Director makes rounds following the Rheumatic Fever Clinic with the team consisting of the Pediatric Nursing Consultant, Co-ordinator of the Program, Public Health Nursing Supervisor, Medical Social Consultant, Occupational Therapist, Teacher, Pediatric Resident and frequently Physicians who participate in the Clinic.

The Newark Board of Education has supplied a teacher. Occupational therapy and education is prescribed by the doctor on an individual case basis according to the amount of exercise and activity the child is allowed.

Close co-operation has been maintained with the two convalescent centers, the six visiting Nurses Associations, the Newark Board of Education, a voluntary and official agency, referring physicians, and related clinics at St. Michael's Hospital.

A volunteer worker is doing research work on the three-year records of the Rheumatic Fever Program. The material that is compiled from the records was set up by a conference with the staff of the Rheumatic Fever Clinic, the Pediatric Nursing Consultant, and the Medical Social Consultant. The Nursing Report of the Rheumatic Fever Program will be incorporated in the Pediatric Nursing Report.

In summary the Rheumatic Fever Project at St. Michael's Hospital has continued to function as a model which other areas might use as a pattern for setting up a Cardiac Program.

TOTAL NUMBER OF RHEUMATIC FEVER CARDIAC CLINICS HELD FOR PERIOD  
JULY 1, 1948, TO JUNE 30, 1949

Number of clinics .....	43
New cases examined .....	86
Re-examination of cases .....	512
Staff evaluations .....	138
Total number of clinic visits .....	734

Approximately 20 cases were given consultation service by this group.

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PSYCHOLOGY DEPARTMENT

The major work done this year has, as in the past, been the psychological examination of children and planning, on this basis, for some aspect of their treatment or training. A tabular summary of the examinations appears in this report. The headings that have been used are in some measure self-explanatory, but they do not adequately describe the nature of the work reported under them.

*General Mental Development*

Numerous cases are reported under the caption "General Mental Development": In these, some aspect of the child's treatment depends upon adequate mental development; lacking this he could not co-operate sufficiently to profit by the work of physicians, therapists and other members of the professional staff.

It is not an unusual experience to find a parent who is planning for his child's future with no conception whatever of what the child is capable of doing; before any help can be given in these cases it is necessary to know, as far as can be discovered, what the mental level of the child is, what capacity he has to adjust. In the case of the crippled child it is often true that no standard testing procedure is adequate; hence, more than in any other type of psychological examination, the examiner must use his judgment in the absence of adequate objective data. It is obviously unfair to make a judgment that will adversely affect a child's training program if any doubt about his ability exists. Therefore everything possible is done to favor the child; in some cases judgment is deferred; in others the child may be given a higher (but never a lower) rating than that which he can actually earn. Standardized procedures are used as far as possible and explanations are made with regard to conclusions which are a matter of clinical judgment.

TABLE I

Total number of examinations .....		233
Conferences .....	404	
Fathers .....	28	
Mothers .....	169	
Nurses .....	63	
Physicians .....	20	
Schools .....	56	
Social workers .....	39	
Others .....	29	
Places of examination .....	233	
Homes .....	120	
Hospitals .....	44	
Schools .....	40	
Regional offices .....	28	
Others .....	1	
Major problems involved .....	244*	
General mental development .....	83	
Education and training .....	104	
Institutional placement .....	25	
Behavior .....	9	
Vocational .....	4	
Emotional .....	9	
Handedness .....	10	
Diagnoses .....	233	
Superior .....	5	
Normal in general intelligence .....	49	
Dull normal .....	18	
Borderline .....	36	
Feebleminded .....	99	
Deferred .....	22	
Emotional .....	2	
Handedness .....	2	

TABLE II

Clinics attended .....	24
Counseling sessions .....	25
Conferences, institutes, meetings attended .....	7
Speeches, addresses given .....	8
Publications .....	5

### *Education and Training*

The heading "Education and Training" covers a large number of cases where children are in the school and, in addition, many who have not yet been admitted to the public school. The parents of children in the northern

\*In several cases, there was more than one major problem involved.

part of the State are very much aware of the excellent work done in the public schools that are specifically devoted to the education of the physically handicapped. Parents outside of the areas directly served by these schools frequently inquire, early in the life of the child, about the possibility of educating their child in the Branch Brook School in Newark or the A. Harry Moore School in Jersey City. There is a very general belief, and a justifiable one, on the part of the parents that their cerebral palsied children, particularly, may not be understood in the public schools. Parents know that many children of this group have been considered mentally defective when they were not. They feel very strongly that their child must be one suitable for such educational advantages. On some occasions the parent requests an examination and discusses the possibility of the child's placement in one of the specialized schools, when the primary need is either not education in the usual sense or, in fact, not public education at all. Among the latter would be those parents whose children, by their presence in the home, keep the parent from pursuing some gainful occupation. These parents are prone to feel that as long as the child is of school age he should be in school, regardless of his mental fitness. There are numerous cases where children have not learned even the simplest accomplishments in self-care which parents could have taught; others apparently have no adequate training in their emotional lives: these children are frequently examined for the purpose of determining whether education may be carried on in the home and whether or not the time has arrived for school placement.

Another important aspect of the work in connection with the school is to assist in the continuing education of children who have already been accepted by the system; some of these children do not live up to their earlier promise; others do better than originally expected of them; in any case examination is made not in order to determine some numerical figure which is supposed to represent the child, but in order to analyze the child's behavior and his resources and to determine the placement and the techniques which will have the greatest educational value for him.

One of the more important aspects of the examinations that are related to school work deals with the problem of special abilities and disabilities. Frequently, when children with special disabilities are examined, an average is made of all the scores on various tests and this average is reported as a guide by which to plan for the child. In our experience this is totally inadequate; we refer once more to the child with cerebral palsy. One examination during the current year is typical of many others: It would be literally true to say of the child both that she has an intelligence quotient of 67 and that she is soon to graduate from high school. Only an analysis of the test resolves the conflict. This child, as in the case of so many similarly afflicted, has no adequate concept of space, form or position, nor has she been able to

develop it; yet her verbal intelligence is adequate so that one is not at all surprised to find her completing a high school course.

Since special education disabilities are of such common occurrence, an effort has been initiated, in co-operation with certain of the public school authorities, to develop methods which will help overcome at an early age the most common difficulties that are encountered. If this is successful the child's total school experience can be carried on with less misunderstanding on the part of the teachers, and thus less frustration to the pupil.

#### *Interpretations*

Interpretation of the results of the psychological examination is considered to be an integral part of the administration of the examination itself. While arrangements are available for additional interpretation if necessary, the psychologist himself makes the initial explanation to the families; this is as complete as can be made at the time. Detailed explanation is given of what the child is able to do and where the most significant failures are. Parents are told of procedures that they may use to the child's advantage. In some cases, because of the absence of a parent from the home or the inability of a parent to understand the complete program laid out for the child, supplementary visits may be necessary; these are arranged through the Regional Offices of the Commission. If institutional placement is indicated, explanations are made to the parents and the necessary procedure outlined.

#### *Counseling*

The parent counseling which was begun during the past year has been continued and the program enlarged. There have been demands from various areas of the State, some of which were met and other which could not be undertaken.

There has been an insistent demand from two areas that some series of meetings be held in the evenings. While it is not too difficult for most mothers to attend a session some time during the day it is almost impossible for the fathers to do so; the parents themselves have felt that it is essential that the fathers have the opportunity fully to discuss their problems as related to the presence of a cerebral palsied child in the home.

Those who have participated in the counseling sessions have expressed the belief that the home life for all members of the family is greatly improved and the lot of the cerebral palsied child much better than it previously had been. Specific problems of discipline and training are always discussed by the parents, but the major gain from the counseling session appears to be the release of pent-up emotions that occurs when parents talk freely about subjects on which they have never been able previously to express themselves fully.

While the psychologist has participated in all of these efforts, he has been assisted on occasion by the Medical Social Consultant and, in several series, by appropriate professional personnel from the National Society for Crippled Children and Adults.

#### *Conferences and Consultations*

There are frequent requests for conferences and consultations that are not directly related to psychological examinations. Efforts have been made to respond favorably to all requests; these in some cases involve lengthy round table discussions; in other cases the preparation and delivery of speeches or lectures. Prominent among the sessions attended were those of the Council on the Handicapped, sponsored by the State Department of Education. The psychologist attended and participated in the annual meeting of the American Association on Mental Deficiency.

#### *Publications and Exhibits*

Articles pertinent to the field have been solicited by and prepared for such professional journals as the American Journal on Mental Deficiency, The Nervous Child, Journal of Public Health Nursing.

Photographic exhibits were prepared representing the Commission's work and displayed both by the Commission and various public health agencies.

### STATISTICAL REPORT

TABLE I—CHILDREN ON STATE REGISTER

1	2	3	4
<i>Line No.</i>	<i>Register Items</i>	<i>Sub-Total</i>	<i>Total</i>
1	Cases on State Register July 1, 1948 .....		14,056
2	New Cases placed on State Register during year .....		2,486
3	Cases on State Register during year .....		16,542
4	Cases removed from State Register .....		1,750
	a. Crippling condition cured .....	437	
	b. Age of 21 reached .....	1,012	
	c. Residence established in another state .....	90	
	d. Death of registrant .....	90	
	e. Registration found ineligible .....	68	
	f. Registration found misspelled name duplicate .....	53	
5	Cases on State Register June 30, 1948 .....		14,792
6	Cases reported for registration but eligibility not determined at end of year .....		463

## DEPARTMENT OF HEALTH

TABLE II—AGENCY SOURCE OF CRIPPLED CHILDREN'S REFERRALS

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Line No.</i>	<i>Agency</i>	<i>Sub-Total</i>	<i>Total</i>
1	All agencies .....		2,486
2	Crippled Children's Commission personnel .....	223	
3	Elks lodges .....	52	
4	Health agency .....	299	
5	Hospital or clinic .....	660	
6	New Jersey state, county and municipal departments .....	547	
7	Others .....	31	
8	Out-of-state .....	16	
9	Physicians .....	45	
10	School cards .....	248	
11	Visible congenital deformity birth certifications .....	365	

TABLE III—COUNTY OF RESIDENCE: CRIPPLED CHILDREN'S REGISTRATIONS

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Line No.</i>	<i>County</i>	<i>Sub-Total</i>	<i>Total</i>
1	State Total .....		2,486
2	Atlantic .....	48	
3	Bergen .....	234	
4	Burlington .....	56	
5	Camden .....	172	
6	Cape May .....	12	
7	Cumberland .....	29	
8	Essex .....	696	
9	Gloucester .....	87	
10	Hudson .....	194	
11	Hunterdon .....	20	
12	Mercer .....	74	
13	Middlesex .....	66	
14	Monmouth .....	269	
15	Morris .....	59	
16	Ocean .....	34	
17	Passaic .....	121	
18	Salem .....	14	
19	Somerset .....	51	
20	Sussex .....	35	
21	Union .....	188	
22	Warren .....	27	



TABLE V—STANDARD CLASSIFIED NOMENCLATURE OF DISEASE  
ETIOLOGIC CATEGORIES OF CRIPPLED CHILDREN'S REGISTRATIONS

1	2	3	4	5	
<i>Para- graph</i>	<i>No.</i>	<i>Code</i>	<i>Standard Etiological Categories</i>	<i>Sub-Total</i>	<i>Total</i>
	1	All	All categories .....		2,486
	2	0	Diseases due to prenatal influences .....	1,140	
	3	1	Diseases due to <i>lower</i> plant and animal parasites ...	868	
	4	2	Diseases due to <i>higher</i> plant and animal parasites ...	0	
	5	3	Diseases due to intoxication .....	1	
	6	4	Diseases due to trauma or physical agents .....	113	
	7	5.0	Diseases secondary to circulatory disturbance .....	0	
	8	5.5	Diseases secondary to disturbance of innervation or psychic control .....	74	
	9	6	Diseases due to or consisting of static mechanical abnormality (obstruction, calculus, displacement or gross change in form) due to unknown cause .....	6	
	10	7	Diseases due to disorder of metabolism growth or nutrition .....	26	
	11	8	New growths .....	12	
	12	9	Diseases due to unknown or uncertain cause with the <i>structural reaction</i> (degenerative, infiltrative, un- flammatory, proliferative, sclerotic or reparative) alone manifest; hereditary and familial diseases of this nature .....	182	
	13	X	Diseases due to unknown or uncertain cause with the <i>functional reaction</i> alone manifest; hereditary and familial diseases of this nature .....	0	
	14	Y	Diseases of undetermined cause .....	64	

TABLE VI—SERVICES PROVIDED REGISTERED CRIPPLED CHILDREN

<i>1</i> <i>Line No.</i>	<i>2</i> <i>Services</i>	<i>3</i> <i>Sub-Total</i>	<i>4</i> <i>Total</i>
1	Admissions .....		391
2	Visits by children to clinics .....		1,537
3	Field or office visits in lieu of service at clinics .....		0
<i>Hospital Care</i>			
4	Children under care July 1, 1948 .....		68
5	Admissions to care during year .....		773
	a. Of children not previously under care during year ....	636	
	b. Of children previously under care during year .....	137	
6	Total under care during year .....		841
7	Discharges during year .....		721
8	Children under care June 30, 1949 .....		121
9	Days care provided during year .....		23,402
<i>Convalescent Care</i>			
10	Children under care July 1, 1948 .....		47
11	Admissions to care during year .....		92
	a. Of children not previously under care during year ....	90	
	b. Of children previously under care during year .....	2	
12	Total under care during year .....		139
13	Discharges during year .....		69
14	Children under care June 30, 1949 .....		70
15	Days care provided during year .....		16,693
<i>Foster Home Care</i>			
16	Foster home care .....		Pending
<i>Public Health Nursing Service</i>			
17	Admissions .....		5,299
18	Field or office visits .....		9,391
<i>Physical-Therapy Service</i>			
19	Admissions .....		186
20	Visits by children to treatment centers .....		5,200
21	Field or office visits .....		0
<i>Medical Social Service</i>			
22	Admissions .....		197
<i>Vocational Rehabilitation</i>			
23	Children referred for vocational services .....		41

<sup>1</sup> Line No.	<sup>2</sup> Services	<sup>3</sup> Sub-Total	<sup>4</sup> Total
	<i>Prosthetic Appliances</i>		
24	Purchased .....		538
	<i>Blood Transfusion</i>		
25	Fees .....		2
	<i>Biologicals and Drugs</i>		
26	Purchases .....		77
	<i>Psychological Service</i>		
27	Examinations .....		233
28	Consultations .....		404
	<i>Overage Rehabilitation</i>		
29	Overage 21 cases referred to Rehabilitation Commission ...		1,052

TABLE VII—BUDGETED EXPENDITURES FOR REGISTERED CRIPPLED CHILDREN

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
<i>Line No.</i>	<i>Budget Items</i>	<i>Total All Funds</i>	<i>State Funds</i>	<i>County Funds</i>	<i>Federal Credit (State Funds)</i>	<i>Federal Fund A</i>	<i>Federal Fund B</i>
1	Hospital and convalescent care .....	\$164,526.56	\$35,505.30	\$73,985.97	\$3,420.67	\$22,839.99	\$28,774.63
2	Prosthetic appliances .....	30,313.24	4,999.97	15,767.27	2,481.56	3,958.90	3,105.54
3	Contract nursing agencies .....	8,983.50	.....	.....	.....	1,276.50	7,707.00
4	Clinics .....	1,468.00	.....	.....	.....	.....	1,468.00
5	Biologicals and drugs .....	1,560.11	.....	.....	.....	1,530.11	30.00
6	Blood transfusions .....	68.50	.....	.....	.....	68.50	.....
7	Office supplies .....	1,593.15	443.54	.....	.....	798.50	351.11
8	Scientific supplies .....	407.85	.....	.....	.....	98.77	309.08
9	Office equipment .....	534.72	.....	.....	.....	399.25	135.47
10	Scientific equipment .....	260.05	.....	.....	.....	11.75	248.30
11	Communication .....	3,950.00	450.00	.....	.....	3,000.00	500.00
12	Printing and binding .....	1,520.18	.....	.....	.....	1,255.42	264.76
13	Publications—free .....	.....	.....	.....	.....	.....	.....
14	Contingent .....	123.12	.....	.....	.....	66.21	56.91
15	Postage .....	1,635.02	800.00	.....	.....	594.93	240.09
16	Rent, Central Offices .....	4,500.00	3,500.00	.....	.....	1,000.00	.....
17	Rent, District Offices .....	3,040.00	.....	.....	.....	2,440.00	600.00
18	Rent, File storage .....	60.00	60.00	.....	.....	.....	.....
19	Tuition .....	318.00	.....	.....	.....	318.00	.....
20	Salaries .....	111,306.87	11,970.00	.....	.....	62,204.62	37,132.25
21	Travel .....	5,718.80	208.20	.....	.....	2,985.82	2,524.78
22	Fees .....	1,000.00	.....	.....	.....	.....	1,000.00
23	Totals .....	\$342,887.67	\$57,937.01	\$89,753.24	\$5,902.23	\$104,847.27	\$84,447.92

## DEPARTMENT OF HEALTH

TABLE VIII—FREEHOLDERS' APPROPRIATIONS CALENDAR YEAR 1948

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Line No.</i>	<i>County</i>	<i>Sub-Total</i>	<i>Total</i>
1	State Total .....		\$160,520.00
2	Atlantic .....	\$8,500.00	
3	Bergen .....	3,000.00	
4	Burlington .....	2,200.00	
5	Camden .....	3,500.00	
6	Cape May .....	1,000.00	
7	Cumberland .....	3,900.00	
8	Essex .....	30,000.00	
9	Gloucester .....	2,500.00	
10	Hudson .....	11,000.00	
11	Hunterdon .....	1,500.00	
12	Mercer .....	30,000.00	
13	Middlesex .....	6,000.00	
14	Monmouth .....	3,500.00	
15	Morris .....	4,000.00	
16	Ocean .....	17,120.00	
17	Passaic .....	15,000.00	
18	Salem .....	800.00	
19	Somerset .....	9,000.00	
20	Sussex .....	1,500.00	
21	Union .....	5,000.00	
22	Warren .....	1,500.00	

# Report of the Bureau of Vital Statistics and Administration

July 1, 1948—June 30, 1949

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MARGUERITE F. HALL, Ph. D., *Director*

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Section on Administrative Services.....JOHN B. VAN ELLIS  
*Chief*

Section on Examination, Licensing and Registration.....

Section on Personnel and Accounts.....WILLIAM R. PEEBLES,  
*Chief*

Section on Public Health Statistics .....F. M. SAYBOLT, M. S. P. H  
*Assistant Chief*

State Registrar of Vital Statistics.....WALTER R. SCOTT  
*State Registrar*



## Bureau of Vital Statistics and Administration

On August 23, 1948, the Bureau of Vital Statistics and Administration came into being as one of six Bureaus of the newly reorganized New Jersey State Department of Health.

The Bureau knit together many of the service sections previously functioning more or less independently. In addition other activities became a part of the Bureau. Essentially the Bureau operates as a service to program and section chiefs through the Directors of the other five Bureaus.

The organization of the Bureau consists of

- Section on Personnel and Accounts.
- Section on Administrative Services.
- Section on Public Health Statistics.
- The State Registrar.
- Section on Examination, Licensing and Registration.

As a result of the reorganization of State Government in accordance with the new Constitution, the direction of the activities guided by the Board of Beauty Culture Control and the Board of Barber Examiners was placed under the jurisdiction of the New Jersey State Department of Health on January 1, 1949. The Commissioner delegated the direction of the legally created Section on Examination, Licensing and Registration to the Bureau of Vital Statistics and Administration. No Chief has been selected as yet for this Section.

The separate reports made by the heads of the other Sections give major details for the various activities of the Bureau of Vital Statistics and Administration.

The Director wishes to highlight the following:

1. Centralization of statistics has made possible integration of records and better unification of the Department as a unit team. Statistical data cut across all Bureaus. Records are linked from Bureau to Bureau. An infant with ophthalmia neonatorum starts the chain from the report received by the Bureau of Preventable Diseases through the Bureau of Laboratories to the Bureau of Constructive Health. The linkage is demonstrated by the Bureau of Vital Statistics and Administration.

2. Useful service to Bureau Directors has been given through the monthly financial report which enables program directors and section chiefs, as well as the Bureau Directors, to have current statements of expenditures.
3. A personnel program has been started which operates under the philosophy that the workers are human beings entitled to orientation, in-service training and promotions when warranted and possible.
4. The Section on Administrative Services performs the housekeeping functions of the Department. Through this Section will come property inventory and control. As a result of special talents within it, this Section intimately serves the health education activities of the Department.
5. Vital records are microfilmed. To date all of the earliest priceless documents, as well as the current 1949 certificates, have been microfilmed. The negatives are stored in a State building other than the one which houses the vaults where the bound volumes are kept. New Jersey takes pride in the preservation of its century-old documents.
6. Requests, numbering well into the hundred, for statistical data have been answered. Current statistical data are available on request and are also routinely distributed to regular consumers. Source materials have been carefully planned to make possible various cross relationships and combinations of statistical data needed by many customers, not only those consumers engaged in Public Health activities but also consumers in other fields, such as labor, education, welfare, etc.

Programs in the Bureau of Vital Statistics and Administration have been set to achieve long-range as well as short-range objectives.

The Bureau has almost completely established and organized its basic service functions. Desirable services are still in the process of development. When adequate space, funds and personnel can be obtained, it will be possible to give these additional services.

### Section on Administrative Services

Created on August 23, 1948, the Section on Administrative Services, Bureau of Vital Statistics and Administration, is charged with the many administrative activities other than personnel, finance or strictly public health functions, but non-the-less vital to a large department of health. Among its various functions are the production of health education materials; health education exhibit and display bookings; maintenance of the film library of the Department; distribution of printed materials; operation of the Department Print Shop; warehousing and distribution of office supplies; distribution of biologics, drugs and vaccines; preparation of specifications for the Department's printing needs; and addressographing, mailing and mimeographing services.

The Section is composed primarily of the personnel and facilities of the former Division of Health Education, with some additional personnel transferred from other existing units of the Department. Personnel at the end of the year totaled 15.

### HEALTH EDUCATION SERVICES

Working closely with the Community Health Organization Consultant of the Office of the Commissioner, the Section has endeavored to provide as complete a service as did the former Division of Health Education. A large portion of time and effort of the Section was used in providing these services.

The Health Education Workshop produced a considerable number of individual posters, illustrations, charts and signs, in addition to art work for reproduction purposes. Five new permanent display units were designed and constructed on specific health subjects for addition to the Department exhibit material. Power wood-working tools were installed to provide more and higher quality displays and exhibits without increasing personnel. Photographic equipment and dark room facilities are available, but the staff does not presently include a photographer.

Fifteen major exhibits and a number of smaller ones were held throughout the State. Two display units were commercially built for use at larger exhibits. Designed by this Section, they provide the means for presentation of specific messages on a variety of subjects at small added cost.

The lay film library of the Department was augmented by the purchase of a few new films. Where necessary, replacement of films no longer usable was made. Totalling approximately 50 film titles, with an average of two prints per title, the library remains deficient in many subjects, and sufficient prints of most films are not available to meet requests. Funds for the purchase of films were provided by the Bureaus concerned with the specific field. Film

bookings were made by the New Jersey State Museum and attendance reports for the year indicate an audience of at least 268,000. In addition, many special film showings for professional meetings, training classes and preview purposes were given by the Section for various Bureaus of the Department.

The Print Shop continued to produce new health education posters and pamphlets in addition to much reprinting of previously created printed materials. The total volume of work produced by the Print Shop and the quality of same has notably increased.

Establishment of additional audio-visual aid facilities were planned and necessary equipment ordered. Plans include placement of one 16 mm sound projector, one sound film-strip projector and one projection screen in each of three District Health Offices located in various parts of the State.

Mailing lists on addressograph plates are maintained by this Section, and were used for many special mailings in addition to such regular projects as Public Health News, Project Reporter, The Annual Report and the Industrial Health Bulletin.

#### BIOLOGICAL, DRUG AND VACCINE DISTRIBUTION

Formerly a function of the Bureau of Local Health Services, the distribution of biologicals and vaccines was continued in much the same manner. To these functions were added the storing and shipping of penicillin drugs and canine rabies vaccine.

Diphtheria toxoid (alum precipitated), smallpox vaccine, pertussis-diphtheria-tetanus (fluid), pertussis-diphtheria-tetanus (alum refined), typhoid vaccine and immune serum globulin were made available to physicians and to local boards of health at 63 distributing stations located at strategic points throughout the State. Rabies vaccine (human) and Rocky Mountain Spotted Fever vaccine were also made available at a few distributing stations throughout the State.

Reports received for the fiscal year indicate that at least 24,280 immunizations with diphtheria toxoid distributed by the State Department of Health were made; 21,457 reports were received for the use of smallpox vaccine and 24,084 reports were received for the use of pertussis-diphtheria-tetanus combined.

The immune serum globulin was provided without charge to the Department by the American Red Cross. During the year a total of 28,000 packages of 2 c. c. each were distributed. Sufficient rabies vaccine (human) was released for complete treatments of 14 doses each to 504 individuals.

Distribution of blood plasma supplied to this Department by the American Red Cross continued until February, 1949. Made available from the surplus in excess of the needs of the armed forces, the program was discontinued by

the American Red Cross when the surplus became exhausted. During the three year period a total of 9,000 packages containing 250 c. c. or 500 c. c. of dried blood plasma with necessary equipment for adding liquid in the required amount and for administering the material were distributed. The plasma was distributed through 184 stations throughout the State. Out-dated plasma is being returned to the American Red Cross for reprocessing the globulin fraction.

Venereal Disease drugs were stored and distributed from the shipping facilities at the Department Warehouse.

#### DEPARTMENT WAREHOUSE

Warehousing and shipping facilities for printed materials, office supplies and nursing field supplies were provided for the Department by this Section. All office supplies formerly kept on reserve at the various Bureaus and Sections were consolidated and are being provided as needed from the Warehouse. New requisitioning and inventory systems have been installed and are designed to provide the Department with an accurate cost picture for these materials. As time and facilities permit, an accurate cost system will be kept for all services provided by this Section.

Also provided at the Warehouse are the centralized mimeographing and addressographing services.

Additional shelving has been installed at the Warehouse. However, the weightload at the Warehouse has been reached and additional materials cannot be accepted until other storage facilities are made available.

Considerable time was expended by Warehouse personnel for many special tasks, including special truck deliveries, and moving equipment for other offices of the Department.

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#### Section on Examination, Licensing and Registration

With the enactment into law of Chapter 444, P. L. 1948 on January 1, 1949, the Board of Beauty Culture Control and the Board of Barber Examiners, heretofore separate State agencies, became a part of the State Health Department, and were designated units of the Section on Examination, Licensing and Registration by law. The Section on Examination, Licensing and Registration was organizationally assigned to the Bureau of Vital Statistics and Administration. During the latter part of the 1948-49 fiscal year conferences and studies were conducted by this Bureau in an effort to co-ordinate the existing policies, procedures and activities of this new Section with the Department's total program.

Immediately after the establishment of this Section, the Board meetings were attended by representatives of the Department, and a new position of Chief, Section on Examination, Licensing and Registration was established. At the close of the fiscal year recruitment of a qualified candidate for this position was still in progress.

Definite activities of this Section, such as reports, revenue and appropriations controls and procurement of supplies and personnel, were co-ordinated and channeled through the State Department of Health at the outset.

As the reorganization of the Department progressed, it was planned that this new Section would be responsible for all examination and licensing procedures conducted by this Department.

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### Section on Personnel and Accounts

Midway in the fiscal year of 1948-49, the Section on Personnel and Accounts was established, and was designated an organizational unit of the Bureau of Vital Statistics and Administration. The Section was made responsible to the Director of the Bureau of Vital Statistics and Administration for the organization and supervision of personnel procedures and fiscal activities of the Department. It is composed of a personnel unit and an accounting unit.

The personnel unit of the Section was primarily concerned with the realignment and reclassification of personnel effected by the advent of the reorganization of the entire State Department of Health. This involved inter section and inter bureau transfers of personnel accompanied in many instances by merit system title changes, as well as the recruitment of qualified and trained individuals. It was also necessary that continued liaison be established with the Civil Service Commission, the central merit system agency, in order that recommendations of the Department with respect to the new classification and compensation plan (Chapter 27, P. L. 1949) could be carried forward in such a manner as to be of a maximum amount of value to the employees and the reorganization plan of the Department.

The construction and accounting of payrolls was changed at the close of the fiscal period from a manual operation to a mechanical (IBM) one. Other personnel records such as individual records and folders were realigned as the reorganization of the Department developed. New employment application forms, educational attainment forms, and training records were placed in use. A grievance procedure was established, training policies reviewed and augmented, and the service rating as prescribed by Civil Service law continued.

The training activities of the Department were increased and considerable emphasis was placed on the training of nurses toward the attainment of thirty hours' credit in Public Health Nursing. In-service training programs were instituted and operated by some of the bureaus, and plans were developed towards an orientation program for new employees. The outline for a departmental handbook was constructed late in the fiscal year.

With the advent of Chapter 444, P. L. 1948, on January 1, 1949, the Personnel Unit became responsible for payrolls and allied personnel activities of the Board of Barber Examiners, Board of Beauty Culture Control and the Crippled Children Commission.

The accounts unit of the Section was in a continual state of change and development during the entire fiscal year. As the reorganization of the Department progressed inter section and bureau fiscal transfers became necessary, continual functional cost studies were needed to assist those planning the total reorganization. Changes in procedures and new accounting methods were developed as reorganization plans took shape.

With the advent of July 1, 1948, all accounting of the Department was placed on a centralized basis and became a responsibility of this unit. As an example, the bookkeeping and accounting responsibilities, and the personnel performing such functions for the Maternal and Child Health Division, were transferred to this unit on July 1, 1948. A general budgeting consolidation of Federal accounts was achieved during this period in order to relieve unnecessary duplication with the Department of Treasury, and a system of reporting the Conditions of Appropriations to the respective bureaus and sections on a monthly basis was instituted. Necessary amendments to the standard travel regulations were activated.

On January 1, 1949, with the entry of the Board of Beauty Culture Control, the Board of Barber Examiners and the Crippled Children Commission into this Department, the responsibility for the supervision of the appropriation and revenue accounts of these agencies was delegated to this unit.

Late in the fiscal year the responsibility for the removal of many of the units of the Health Department to new locations more consistent with the reorganization was assigned this unit.

Project control accounts by funds were maintained as was a budgetary working reserve account (clearing house for all lapses and interbudgetary transfers). The accounting of the Department was operated on an encumbrance basis.

Immediately below is a consolidated financial statement of the Department as it was constituted on June 30, 1949.

## DEPARTMENT OF HEALTH

## STATE DEPARTMENT OF HEALTH—FINANCIAL STATEMENT

FISCAL YEAR 1948-1949

*Receipts*

Received for Transfer to State Treasury:	
Licenses and permit fees .....	\$240,916.43
Penalties .....	5,091.00
Certified certificates .....	23,654.74
Examination fees .....	952.50
Miscellaneous .....	2,946.25
	<hr/>
Net total .....	\$273,560.92
Received for Disbursement:	
State appropriations and transfers .....	\$1,068,508.85
Federal Security Agency:	
United States Public Health Service .....	808,725.26
United States Children's Bureau .....	428,223.31
	<hr/>
Net total .....	\$2,305,457.42

## DEPARTMENTAL ALLOCATIONS

	Salaries		Other Expenditures		Total State	Total Federal	Total All Funds
	State	Federal	State	Federal			
Vital statistics and adm. ....	\$194,660.57	\$64,745.08	\$49,998.94	\$29,790.28	\$244,659.51	\$94,535.36	\$339,194.87
Laboratories .....	79,282.60	73,703.34	58,175.86	27,415.09	137,458.46	101,118.43	238,576.89
Preventable diseases .....	113,513.58	297,955.35	71,895.37	390,215.70	185,408.95	688,171.05	873,580.00
Environmental sanitation .....	193,268.81	40,649.88	66,678.48	8,656.27	259,947.29	49,306.15	309,253.44
Constructive health .....	125,300.34	150,931.47	20,732.46	82,905.96	146,032.80	233,837.43	379,870.23
Local health services .....	65,199.55	56,712.63	29,802.29	13,267.52	95,001.84	69,980.15	164,981.99
Totals .....	\$771,225.45	\$684,697.75	\$297,283.40	\$552,250.82	\$1,068,508.85	\$1,236,948.57	\$2,305,457.42

## DEPARTMENTAL EXPENDITURES

	Salaries		Other Expenditures		Total State	Total Federal	Total All Funds
	State	Federal	State	Federal			
Vital statistics and adm. ....	\$191,223.15	\$63,893.68	\$44,128.44	\$27,435.53	\$235,351.59	\$91,329.21	\$326,680.80
Laboratories .....	79,206.60	72,973.58	57,680.17	23,101.84	136,886.77	96,075.42	232,962.19
Preventable diseases .....	112,858.88	270,675.00	48,889.58	336,611.56	161,748.46	607,286.56	769,035.02
Environmental sanitation .....	191,865.32	40,649.88	58,377.24	8,528.30	250,242.56	49,178.18	299,420.74
Constructive health .....	125,186.73	145,449.47	19,394.24	51,486.18	144,580.97	196,935.65	341,516.62
Local health services .....	60,997.53	57,050.46	29,053.30	12,773.23	90,050.83	69,823.69	159,874.52
Totals .....	\$761,338.21	\$650,692.07	\$257,522.97	\$459,936.64	\$1,018,861.18	\$1,110,628.71	\$2,129,489.89
Balances, June 30, 1949 .....	\$9,887.24	\$34,005.68	\$39,760.43	\$92,314.18	\$49,647.67	\$126,319.86	\$175,967.53

### Section on Public Health Statistics

The date of January 1, 1949, marked a change of great significance in the processing of data from vital statistics and morbidity records. Prior to then only death, stillbirth and morbidity information was coded and punched for mechanized statistical tabulation. Now all certificates of vital events receive that treatment and an identification number has been added to both the certificate and punch card. The alphabetic filing of certificates has been discontinued and numeric filing substituted. Monthly and annual indices are prepared to locate any particular certificate.

What was formerly known as the Bureau of Vital Statistics has now become the Collection and Registration unit of the Section on Public Health Statistics. The statistical machine unit has been greatly enlarged and operates as a part of the Section on Public Health Statistics. The data which can be made readily available are now limited only by the number of machines and personnel. The new system will expedite the compilation of the annual statistical reports and will make practicable the tabulation of deaths by cause for each minor civil division. Although much of the data will not be published or otherwise distributed, it will remain in this office as source material to guide program and administrative planning in the State Department of Health and to answer the requests for information by individuals and public health agencies.

The tabulation of communicable diseases made reportable by law or regulation has also been made a responsibility of this section. Weekly and monthly reports are already being furnished to the District Health Officers. These reports list the numbers of reportable diseases, the residence of the individuals affected and the names of those persons whose cases need special investigation.

The names and residences of those persons whose deaths were charged to cancer or tuberculosis have been listed and are of service to agencies doing field work in these diseases. An index of tuberculosis cases is also in the process of preparation. Budget, payroll and personnel records are also being handled by the punch card method. When finances and working space permit, it is anticipated that other records capable of analyses for administrative or health education use will be transferred to punch cards.

### State Registrar of Vital Statistics

The State Registrar has the custody of more than twelve million records of births, marriages and deaths which date back to 1848. The records for the period 1848 to 1887 were collected by the Secretary of State and turned over to the Bureau of Vital Statistics when the health laws were revised by the Legislature during the session of 1887. The new law provided for a State Board of Health and Bureau of Vital Statistics. Prior to that year the annual statistical reports, which have been published since 1879, were prepared from records not in the custody of the Bureau.

As required by law the State Registrar supervised the issuance of marriage licenses and the registration of births, marriages and deaths throughout the State and supplied to local registrars and others the forms necessary to obtain registration.

Monthly and annual statistical tables were compiled and published and special statistical data were compiled for the use of public and private institutions and agencies interested in disease and accident prevention. Electrical tabulation machinery, which was installed in 1915, was used in the preparation of the data. The data have been of great value to other program chiefs of the department.

Photostatic copies of certificates of deaths due to reportable diseases were prepared and forwarded to the Bureau of Local Health Services and copies of certificates of deaths due to cancer and other malignant tumors were prepared for the Division of Cancer Control. This service was discontinued as of January 1, 1949, following the installation of equipment for printing the data from punched cards.

Certified copies of birth, marriage and death records were issued to individuals and interested organizations and agencies. During the fiscal year 1948-49, 41,154 searches of the records were made and copies of certificates issued for which \$22,020.01 was received in fees. A total of 19,134 of the searches and certified copies were for purposes exempt from charge by law. Receipts were \$1,055.14 less than the amount collected during the preceding year. There was an increase of 4,595 or 32 per cent in the number of certificates issued without charge, which records were requested mainly for use as proof when applying for dependency allotments and in furthering claims against the Federal Government due to service with the armed forces.

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

More than 103,000 premarital certificate forms were received and examined, a duty placed upon the office at the adoption of the law requiring an examination for syphilis prior to the issuance of a marriage license.

A total of 1,584 original birth records were sealed and new certificates containing the names obtained by adoption made, as prescribed by Section 26:8-40.1 of the Revised Statutes.

The Field Representative made 53 calls on local registrars. He conferred with authorities at two hospitals and visited one Funeral Director. One evening county meeting of local registrars was conducted.

As required by Chapter 202, Laws of 1945, a monthly report of the names of deceased veterans with the dates and places of burial, cremation or removal of such deceased veterans, and the wars in which they served, was forwarded to the county supervisors of veterans' interment. A total of 2,031 veterans were reported as buried in New Jersey cemeteries during the fiscal year.

## GENERAL SUMMARY

	1920	Calendar Years		
		1930	1940	1948
Births registered, tabulated and indexed . . . . .	76,431	68,282	59,328	97,278
Stillbirths registered, tabulated and indexed . . .	3,221	2,647	1,543	1,964
Marriages registered, tabulated and indexed . .	31,327	28,499	41,059	51,913
Deaths registered, tabulated and indexed . . . . .	40,820	43,190	45,206	48,107
Total records registered, tabulated, indexed and permanently filed . . . . .	151,799	142,618	147,136	199,262
Searches made and/or certified copies issued for which fees were received . . . . .	4,664	10,523	38,431	22,020
Certified copies issued and searches made in pension and other cases for which no fees were received . . . . .	4,232	6,938	11,300	19,134
Fees received for searches and certified copies	\$4,051	\$9,601	\$31,614	\$22,020.01

## CHARTS AND TABLES—1948

- Table 1. Births, marriages, deaths and rates, 1879-1948.
- Table 1a. Births, marriages and deaths by months.
- Table 1b. Births, marriages, deaths and deaths under one year of age by counties, cities, boroughs and townships.
- Table 2. Deaths by age groups, with the percentage of each group of total deaths.
- Chart 1. Births and deaths per 1,000 population, 1880-1944.
- Table 3. Number of deaths at all ages, under one year of age and under five years of age, and their percentages of total deaths.
- Table 4. Number of births, stillbirths, deaths under one month, deaths under one year and maternal deaths with rates per 1,000 live births, 1906-1948.
- Table 5. Deaths under one month, stillbirths and maternal deaths per 1,000 live births, by counties and certain cities.
- Table 7. Births, deaths under one year and infant mortality rates, by counties and cities.
- Chart 2. Deaths from typhoid fever per 100,000 population, 1880-1944.
- Table 8. Comparison between typhoid fever death rates in New Jersey and the United States Registration Area, 1939-1948.
- Table 10. Typhoid fever rates by counties, 1939-1948.
- Chart 3. Deaths from measles per 100,000 population, 1880-1944.
- Chart 4. Deaths from scarlet fever per 100,000 population, 1880-1944.
- Chart 5. Deaths from whooping cough per 100,000 population, 1880-1944.
- Chart 6. Deaths from diphtheria per 100,000 population, 1880-1944.
- Chart 7. Deaths from respiratory tuberculosis per 100,000 population, 1880-1944.
- Table 12. Cancer and other malignant tumors by sex, age period and organs affected.
- Table 12a. Cancer and other malignant tumors by part of body affected and color of decedent.
- Chart 8. Deaths from cancer and other malignant tumors per 100,000 population, 1880-1944.
- Table 13a. Violent or accidental deaths.
- Table 13b. Motor vehicle fatalities.
- Table 13c. Accidental deaths by type of injury.
- Table 13d. Accidental deaths by counties.
- Table 13e. Accidental deaths by months.
- Table 13f. Accidental deaths by ages.
- Table 14. Percentage of the various causes of total deaths and of each sex of total.
- Table 15. Death rates, total, white and colored, from important causes, per 100,000 total, white and colored population.

- Table 16. Deaths (exclusive of stillbirths) by causes and months of death.
- Table 17. Deaths (exclusive of stillbirths) from each cause of the Abridged International List, by age, sex, and color.
- Table 18. Deaths (exclusive of stillbirths) by causes, by days, weeks and months of the first year of life.
- Table 19. Deaths (exclusive of stillbirths) under one year of age, by causes and months of death.
- Table 20. Deaths (adjusted for residence) from each cause, Detailed International List, in the counties of New Jersey and selected municipalities and townships.
- Table 22. Deaths by causes, sex, color and age periods in the counties and cities having 50,000 or more inhabitants in 1940. (County figures include cities which follow):

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

*Population.*—In computing rates for the State, the U. S. Census Bureau estimate of 4,729,000 as of July 1, 1948, was used. Armed forces stationed in the State were included; residents of the State serving with the armed forces overseas were excluded. Information concerning the computing method may be obtained by referring to Current Population Reports, Series P-25, No. 14, issued by the Bureau of the Census on October 3, 1948.

Since county population estimates for 1948 were not available from the U. S. Census Bureau, the death rates by counties were based upon estimates of county populations for January 1, 1948, released by the State Department of Conservation and Economic Development. These estimates were developed by using a projection factor involving the relation of the 1940 Census data on dwelling units to the number of construction and remodeling permits issued in the counties since that time. Estimates of the 1948 population of munici-

palities could not be obtained and the estimates shown are those computed in 1947 on the basis of surveys of the large municipalities of each county. While rates have been compiled they are unreliable due to population uncertainties. They should be carefully analyzed before being accepted as truly indicative of trends. More nearly correct rates cannot be compiled until after the Census of 1950.

*Births.*—During 1948, 97,278 live births were reported, with a resultant rate of 20.6 per 1,000 population. This was a numerical decrease of 8,808 births from the number for the preceding year. The 1947 total of 106,086 was 11,042 more than occurred in 1946. Birth rates, which decreased from 25.1 in 1917 to 13.2 in 1936, have shown a rising trend since the latter year.

*Marriages.*—The number of marriages reported for 1948 was 51,913, a decrease of 3,889, or 7.0 per cent, from the number for the previous year. The marriage rate per 1,000 population was 11.0 compared with 12.6 for 1947 and 14.2 for 1946.

*Deaths.*—The number of deaths of residents of the State for 1948 was 48,107, equivalent to a rate of 10.2 per 1,000 population. In 1947 the rate was 10.9. During the past decade the highest death rate was 11.8 in 1943.

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

YEAR	Estimated Population	BIRTHS		MARRIAGES		DEATHS	
		Number of births reported	Birth rate per 1,000 population	Number of marriages	Marriage rate per 1,000 population	Number of deaths	Death rate per 1,000 population
1879	1,110,489	23,116	20.8	7,096	6.3	20,440	18.4
1880	1,133,731	23,080	20.8	7,063	7.0	18,967	16.7
1881	1,165,112	23,484	20.1	8,109	6.9	20,812	17.8
1882	1,196,493	23,108	19.3	8,837	7.3	25,959	21.6
1883	1,227,874	24,430	19.8	9,166	7.4	23,310	18.9
1884	1,259,256	25,263	20.0	8,968	7.1	21,716	17.2
1885	1,290,638	24,077	18.6	8,980	6.9	23,807	18.4
1886	1,322,020	25,497	19.2	12,351	9.3	22,734	17.1
1887	1,353,402	27,340	20.2	15,416	11.3	24,331	17.9
1888	1,384,784	28,074	20.2	16,025	11.5	27,173	19.6
1889	1,416,166	29,099	20.5	15,726	11.1	26,543	18.7
1890	1,448,589	30,103	20.7	15,564	10.7	28,530	19.6
1891	1,492,462	28,882	19.3	15,305	10.2	28,440	19.3
1892	1,536,336	30,627	19.9	16,082	10.4	32,685	21.2
1893	1,580,209	32,285	20.4	17,178	10.8	30,596	19.3
1894	1,624,083	33,662	20.7	16,245	10.0	30,004	18.4
1895	1,667,957	31,742	19.0	15,878	9.5	30,634	18.3
1896	1,711,831	31,207	18.2	18,370	10.7	30,767	17.9
1897	1,755,705	31,595	17.9	18,171	10.3	29,822	16.9
1898	1,799,578	32,515	18.0	18,213	7.3	27,337	15.1
1899	1,843,452	29,419	15.9	13,336	7.2	30,999	16.8
1900	1,889,184	32,270	17.0	14,611	7.7	31,474	16.6
1901	1,935,361	34,812	17.8	16,539	8.4	31,739	16.2
1902	2,021,539	35,116	17.3	18,150	8.9	31,319	15.4
1903	2,087,716	37,242	17.8	19,512	9.3	31,820	15.2
1904	2,153,893	38,751	17.9	18,919	8.7	35,298	16.3
1905	2,220,070	39,689	17.8	20,572	9.2	33,864	15.2
1906	2,286,247	42,677	18.6	21,580	9.4	35,670	15.6
1907	2,352,424	44,651	18.9	23,649	10.0	37,408	15.9
1908	2,418,601	47,405	19.6	26,155	10.8	35,597	14.7
1909	2,484,778	47,508	19.1	26,724	11.9	36,359	14.6
1910	2,550,445	53,942	21.1	27,912	10.9	39,494	15.4
1911	2,614,177	58,133	22.2	25,014	9.5	38,612	14.7
1912	2,677,909	60,073	22.4	26,821	10.0	37,772	14.1
1913	2,741,642	61,432	22.4	27,697	10.1	39,425	14.3
1914	2,805,374	65,403	23.3	28,528	10.1	39,967	14.2
1915	2,869,106	66,476	23.1	27,694	9.6	39,435	13.7
1916	2,932,838	70,211	23.9	31,199	10.6	43,376	14.7
1917	2,996,569	75,309	25.1	30,080	10.0	43,532	14.5
1918	3,060,301	74,549	24.3	23,989	7.8	60,852	19.8
1919	3,124,034	70,935	22.7	20,281	6.5	39,979	12.7
1920	3,199,092	76,431	23.8	31,327	9.7	40,820	12.7
1921	3,285,475	78,172	23.7	27,815	8.4	37,362	11.3
1922	3,371,859	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,458,243	74,611	21.5	28,730	8.3	41,294	11.9
1924	3,544,627	76,530	21.5	27,601	7.7	40,531	11.4
1925	3,631,011	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,717,395	72,386	19.4	28,424	7.6	44,396	11.9
1927	3,803,779	72,799	19.1	28,316	7.4	41,562	10.9
1928	3,890,163	70,076	18.0	29,120	7.4	44,555	11.4
1929	3,976,546	68,297	17.1	30,257	7.6	45,746	11.5
1930	4,044,300	68,282	16.9	28,499	7.0	43,190	10.7
1931	4,056,200	64,078	15.8	26,468	6.5	44,135	10.9
1932	4,068,100	61,215	15.0	22,840	5.6	42,826	10.5
1933	4,080,000	56,072	13.7	24,453	6.0	43,380	10.6
1934	4,091,800	54,841	13.4	28,991	7.1	43,547	10.6
1935	4,103,700	55,059	13.4	29,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,500	55,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,206	10.9
1941	4,199,900	67,104	16.0	46,538	11.1	45,971	10.9
1942	4,226,423	80,812	19.1	50,498	11.9	46,270	10.9
1943	4,235,233	82,356	19.4	41,045	9.7	49,781	11.8
1944	4,167,849	75,652	18.2	36,084	8.7	47,340	11.4
1945	4,200,941	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,304,261	95,044	22.1	61,020	14.2	46,261	10.7
1947	4,435,000	106,086	23.9	55,802	12.6	48,276	10.9
1948	4,729,000	97,278	20.6	51,913	11.0	48,107	10.2

TABLE 1A—BIRTHS, MARRIAGES AND DEATHS, 1948  
(Births and deaths corrected for residence)

<i>Month</i>	<i>Births</i>	<i>Marriages</i>	<i>Deaths</i>
January .....	7,847	3,605	4,646
February .....	7,767	3,353	4,231
March .....	8,503	2,462	4,346
April .....	7,780	4,783	4,007
May .....	7,812	4,568	4,061
June .....	7,618	6,643	3,858
July .....	8,279	4,420	3,628
August .....	8,552	3,897	3,935
September .....	8,508	5,980	3,486
October .....	8,639	5,135	3,857
November .....	8,077	4,326	3,834
December .....	7,896	2,741	4,218
<b>Total</b> .....	<b>97,278</b>	<b>51,913</b>	<b>48,107</b>

TABLE 1B—BIRTHS, MARRIAGES, DEATHS AND DEATHS UNDER ONE YEAR OF AGE BY COUNTIES, CITIES, BOROUGHS AND TOWNSHIPS, 1948  
(Births and deaths corrected as to residence)

ATLANTIC COUNTY				
NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Absecon City .....	53	16	22	..
Atlantic City .....	1176	851	969	36
Brigantine City .....	9	9	9	1
Buena Vista Township .....	68	54	36	..
Corbin City .....	3	7	..	..
Egg Harbor City .....	99	70	42	1
Egg Harbor Township .....	68	22	60	5
Estelle Manor City .....	6	4	7	..
Folsom Borough .....	..	1	1	1
Galloway Township .....	62	10	42	1
Hamilton Township .....	66	25	47	2
Hammonton Town .....	150	83	87	..
Linwood City .....	50	23	31	2
Longport Borough .....	7	4	5	..
Margate City .....	79	16	45	1
Mullica Township .....	24	5	19	..
Northfield City .....	62	12	33	..
Pleasantville City .....	268	156	159	6
Port Republic City .....	10	7	7	..
Somers Point City .....	47	31	40	1
Ventnor City .....	127	127	103	3
Weymouth Township .....	16	8	12	1
<b>Total</b> .....	<b>2450</b>	<b>1541</b>	<b>1776</b>	<b>61</b>

BERGEN COUNTY				
NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allendale Borough	53	18	23	1
Alpine Borough	16	6	6	..
Bergenfield Borough	271	126	122	5
Bogota Borough	131	85	79	2
Carlstadt Borough	107	44	56	3
Cliffside Park Borough	310	152	145	3
Closter Borough	64	30	33	..
Cresskill Borough	53	18	31	1
Demarest Borough	28	6	12	..
Dumont Borough	266	85	95	5
East Paterson Borough	267	47	66	6
East Rutherford Borough	128	105	70	..
Edgewater Borough	77	187	47	1
Emerson Borough	34	14	15	1
Englewood City	470	345	235	14
Englewood Cliffs Borough	18	5	7	..
Fair Lawn Borough	478	86	120	11
Fairview Borough	181	165	97	3
Fort Lee Borough	217	194	101	7
Franklin Lakes Borough	30	12	8	3
Garfield Borough	574	297	219	19
Glen Rock Borough	109	32	72	3
Hackensack City	556	488	305	20
Harrington Park Borough	28	11	9	..
Hasbrouck Heights Borough	146	106	85	4
Haworth Borough	34	7	16	2
Hillsdale Borough	81	28	39	1
Hohokus Borough	29	19	16	..
Leonia Borough	144	69	61	5
Little Ferry Borough	89	65	39	3
Lodi Borough	348	160	104	7
Lyndhurst Township	420	203	153	5
Mahwah Township	77	31	36	2
Maywood Borough	153	36	58	5
Midland Park Borough	121	40	34	3
Montvale Borough	32	8	20	1
Moonachie Borough	45	15	9	..
New Milford Borough	100	34	42	4
North Arlington Borough	369	88	95	11
Northvale Borough	32	15	9	..
Norwood Borough	29	17	19	..
Oakland Borough	35	5	16	2
Old Tappan Borough	13	3	7	1
Oradell Borough	50	26	32	..
Palisades Interstate Park	..	..	..	..
Palisades Park Borough	190	98	71	2
Paramus Borough	74	23	38	2
Park Ridge Borough	57	37	35	1
Ramsey Borough	100	35	39	..
Ridgefield Borough	168	67	51	1
Ridgefield Park Village	217	96	128	4
Ridgewood Village	239	168	172	6
River Edge Borough	143	39	40	3
Rivervale Township	30	2	12	1
Rochelle Park Township	115	41	33	1
Rockleigh Borough	..	..	1	..
Rutherford Borough	299	157	184	5
Saddle River Borough	19	7	14	1
Saddle River Township	97	15	34	..
South Hackensack Township	32	4	13	2
Teaneck Township	549	203	247	20
Tenafly Borough	148	50	85	7
Teterboro Borough	..	1	1	..
Upper Saddle River Borough	10	12	6	..
Wallwick Borough	78	18	31	2
Wallington Borough	168	74	63	3
Washington Township	24	2	5	..
Westwood Borough	131	75	52	5
Woodcliff Lake Borough	25	5	15	..
Wood Ridge Borough	121	59	52	4
Wyckoff Township	74	28	44	..
Total	9921	4849	4329	234

## BURLINGTON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bass River Township .....	4	6	12	..
Beverly City .....	80	20	42	2
Bordentown City .....	127	96	63	2
Bordentown Township .....	30	2	12	..
Burlington City .....	306	136	180	10
Burlington Township .....	46	17	19	3
Chesterfield Township .....	18	7	10	1
Cinnaminson Township .....	42	22	19	2
Delanco Township .....	73	19	27	2
Delran Township .....	48	11	15	4
Eastampton Township .....	18	..	6	..
Edgewater Park Township .....	25	21	12	1
Evesham Township .....	57	11	27	1
Fieldsboro Borough .....	11	1	7	1
Florence Township .....	151	63	79	2
Fort Dix .....	96	126	4	1
Hainesport Township .....	25	13	6	..
Lumberton Township .....	23	3	13	..
Mansfield Township .....	39	11	20	..
Maple Shade Township .....	113	76	45	1
Medford Township .....	65	24	30	..
Medford Lakes Borough .....	9	11	1	..
Moorestown Township .....	190	78	112	7
Mount Holly Township .....	199	70	101	9
Mount Laurel Township .....	28	5	20	..
New Hanover Township .....	11	1	5	2
North Hanover Township .....	11	7	6	2
Palmyra Borough .....	139	60	52	3
Pemberton Borough .....	51	15	17	1
Pemberton Township .....	119	74	30	4
Riverside Township .....	156	99	77	7
Riverton Borough .....	70	41	32	..
Shamong Township .....	12	..	4	..
Southampton Township .....	56	12	25	1
Springfield Township .....	25	9	18	1
Tabernacle Township .....	11	16	9	1
Washington Township .....	9	..	6	..
Westampton Township .....	16	..	9	1
Willingboro Township .....	10	..	9	..
Woodland Township .....	9	1	5	1
Wrightstown Borough .....	48	4	4	..
<b>Total .....</b>	<b>2576</b>	<b>1188</b>	<b>1100</b>	<b>73</b>

## CAMDEN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Audubon Borough .....	198	70	99	1
Audubon Park Borough .....	17	1	5	..
Barrington Borough .....	53	11	18	..
Bellmawr Borough .....	151	9	26	8
Berlin Borough .....	61	57	27	2
Berlin Township .....	48	11	19	..
Brooklawn Borough .....	38	6	22	1
Camden City .....	2801	1698	1372	86
Chesilhurst Borough .....	7	2	6	2
Clementon Borough .....	76	17	33	5
Collingswood Borough .....	353	173	188	9
Delaware Township .....	79	16	62	2
Gibbsboro Borough .....	18	4	12	..
Gloucester City .....	321	135	149	5
Gloucester Township .....	145	38	70	4
Haddonfield Borough .....	222	133	120	4
Haddon Heights Borough .....	122	95	67	1
Haddon Township .....	115	52	82	1
HiNella Borough .....	3	..	1	..
Laurel Springs Borough .....	34	9	18	2
Lawnside Borough .....	29	6	10	2
Lindenwold Borough .....	48	66	26	1
Magnolia Borough .....	44	17	29	3
Merchantville Borough .....	291	108	79	5
Mount Ephraim Borough .....	92	29	32	5
Oaklyn Borough .....	134	35	47	5
Pennsauken Township .....	289	132	178	7

## CAMDEN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Pine Hill Borough .....	25	20	24	1
Pine Valley Borough .....	..	..	..	..
Runnemede Borough .....	85	56	36	2
Somerdale Borough .....	36	7	15	..
Stratford Borough .....	30	10	11	1
Tavistock Borough .....	..	..	..	..
Voorhees Township .....	25	7	13	..
Waterford Township .....	61	25	34	1
Winslow Township .....	94	47	42	1
Woodlyne Borough .....	47	17	29	1
Total .....	6192	3119	3001	168

## CAPE MAY COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Avalon Borough .....	14	4	14	1
Cape May City .....	71	42	60	3
Cape May Point Borough .....	4	..	4	1
Dennis Township .....	29	22	19	1
Lower Township .....	43	12	26	1
Middle Township .....	95	25	78	4
North Wildwood City .....	43	24	40	1
Ocean City .....	86	74	99	..
Sea Isle City .....	24	13	18	1
Stone Harbor Borough .....	11	10	7	..
Upper Township .....	34	21	44	1
West Cape May Borough .....	16	4	7	..
West Wildwood Borough .....	5	..	3	..
Wildwood City .....	128	115	111	7
Wildwood Crest Borough .....	26	3	16	1
Woodbine Borough .....	38	8	22	1
Total .....	667	377	568	23

## CUMBERLAND COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bridgeton City .....	442	215	224	17
Commercial Township .....	55	19	55	3
Deerfield Township .....	52	18	21	1
Downe Township .....	35	12	19	1
Fairfield Township .....	74	34	25	2
Greenwich Township .....	34	7	12	1
Hopewell Township .....	41	10	12	1
Landis Township .....	334	143	173	15
Lawrence Township .....	58	7	17	1
Maurice River Township .....	43	11	36	4
Millville City .....	389	158	229	12
Shiloh Borough .....	11	2	10	1
Stow Creek Township .....	28	..	6	1
Upper Deerfield Township .....	121	26	37	4
Vineyard Borough .....	185	100	105	2
Total .....	1902	762	981	66

## ESSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Belleville Town .....	647	299	269	10
Bloomfield Town .....	891	390	450	21
Caldwell Borough .....	136	109	69	3
Caldwell Township .....	26	8	7	1
Cedar Grove Township .....	71	11	34	2
East Orange City .....	1520	661	895	34
Essex Fells Borough .....	21	24	10	..
Glen Ridge Borough .....	92	42	88	1
Irvington Town .....	1082	582	559	19
Livingston Township .....	194	29	52	4
Maplewood Township .....	348	187	210	9
Millburn Township .....	172	113	99	4
Montclair Town .....	813	447	445	20
Newark City .....	9562	6066	5105	316
North Caldwell Borough .....	22	7	18	1
Nutley Town .....	521	283	207	17
Orange City .....	822	551	455	24
Roseland Borough .....	35	6	6	..
South Orange Village .....	205	192	168	5
Verona Borough .....	194	69	82	3
West Caldwell Borough .....	82	13	37	4
West Orange Town .....	571	153	246	15
Total .....	18027	10842	9511	513

## GLOUCESTER COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clayton Borough .....	72	19	41	3
Deptford Township .....	111	63	57	3
East Greenwich Township .....	46	13	29	2
Elk Township .....	20	7	13	2
Franklin Township .....	84	29	39	3
Glassboro Borough .....	122	76	67	2
Greenwich Township .....	51	28	22	2
Harrison Township .....	61	13	27	2
Logan Township .....	33	12	22	2
Mantua Township .....	110	19	46	3
Monroe Township .....	116	60	61	3
National Park Borough .....	69	19	26	3
Newfield Borough .....	51	19	18	2
Paulsboro Borough .....	211	89	75	6
Pitman Borough .....	139	58	97	6
South Harrison Township .....	8	3	6	..
Swedesboro Borough .....	106	43	42	3
Washington Township .....	26	14	21	..
Wenonah Borough .....	37	9	14	..
West Deptford Township .....	95	38	50	3
Westville Borough .....	121	48	44	1
Woodbury City .....	254	135	97	2
Woodbury Heights Borough .....	21	10	21	1
Woolwich Township .....	19	..	9	..
Total .....	1983	824	944	54

## HUDSON COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bayonne City .....	1670	800	708	39
East Newark Borough .....	48	19	13	..
Guttenberg Town .....	96	51	77	2
Harrison Town .....	304	216	166	8
Hoboken City .....	1071	1266	669	27
Jersey City .....	6809	4303	3397	175
Kearny Town .....	792	358	391	18
North Bergen Township .....	738	274	390	16
Secaucus Borough .....	141	64	74	3
Union City .....	1084	840	639	22
Weehawken Township .....	235	176	176	4
West New York .....	766	870	392	19
Total .....	13554	9237	7092	333

**HUNTERDON COUNTY**

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alexandria Township .....	7	1	9	1
Bethlehem Township .....	21	1	8	..
Bloomsbury Borough .....	16	9	12	1
Califon Borough .....	21	15	11	..
Clinton Town .....	22	21	22	2
Clinton Township .....	40	9	28	3
Delaware Township .....	32	13	21	..
East Amwell Township .....	37	4	16	3
Flemington Borough .....	72	38	58	2
Franklin Township .....	15	9	10	1
Frenchtown Borough .....	35	12	25	1
Glen Gardner Borough .....	24	6	16	1
Hampton Borough .....	18	10	9	..
High Bridge Borough .....	42	33	25	1
Holland Township .....	15	4	7	1
Kingwood Township .....	16	3	15	1
Lambertville City .....	90	51	54	..
Lebanon Borough .....	24	4	15	1
Lebanon Township .....	18	4	11	1
Milford Borough .....	24	27	14	1
Raritan Township .....	59	2	28	6
Readington Township .....	73	35	27	3
Stockton Borough .....	15	9	8	3
Tewksbury Township .....	18	16	28	..
Union Township .....	10	2	12	2
West Amwell Township .....	9	3	12	1
Total .....	773	341	501	36

**MERCER COUNTY**

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
East Windsor Township .....	10	2	9	1
Ewing Township .....	308	68	109	5
Hamilton Township .....	907	291	366	26
Hightstown Borough .....	109	50	52	2
Hopewell Borough .....	39	29	23	1
Hopewell Township .....	99	14	41	1
Lawrence Township .....	157	43	61	4
Pennlinton Borough .....	27	27	19	..
Princeton Borough .....	235	134	86	3
Princeton Township .....	116	8	27	2
Trenton City .....	2694	1768	1387	85
Washington Township .....	37	6	20	1
West Windsor Township .....	56	29	19	2
Total .....	4794	2469	2219	133

**MIDDLESEX COUNTY**

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Camp Kilmer .....	75	96	1	1
Carteret Borough .....	274	144	104	3
Cranbury Township .....	55	24	27	4
Dunellen Borough .....	176	134	72	2
East Brunswick Township .....	91	20	34	2
Helmetta Borough .....	17	9	5	..
Highland Park Borough .....	184	103	94	4
Jamesburg Borough .....	76	46	34	1
Madison Township .....	183	41	58	4
Metuchen Borough .....	225	109	93	8
Middlesex Borough .....	80	55	34	3
Milltown Borough .....	88	48	26	3
Monroe Township .....	33	7	26	2
New Brunswick City .....	914	645	383	26
North Brunswick Township .....	141	16	46	5
Perth Amboy City .....	873	598	414	29

MIDDLESEX COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Piscataway Township .....	172	24	58	2
Plainsboro Township .....	26	1	14	..
Raritan Township .....	239	76	91	3
Sayreville Borough .....	196	64	69	3
South Amboy City .....	217	120	85	4
South Brunswick Township .....	65	22	30	3
South Plainfield Borough .....	182	58	51	3
South River Borough .....	259	157	101	7
Spotswood Borough .....	59	10	20	..
Woodbridge Township .....	735	255	300	14
<b>Total</b> .....	<b>5635</b>	<b>2882</b>	<b>2270</b>	<b>136</b>

MONMOUTH COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allenhurst Borough .....	18	2	11	..
Allentown Borough .....	27	17	10	1
Asbury Park City .....	401	324	277	17
Atlantic Township .....	19	6	10	..
Atlantic Highlands Borough .....	83	40	46	5
Avon Borough .....	24	16	23	..
Belmar Borough .....	116	85	90	1
Bradley Beach Borough .....	77	42	50	2
Brielle Borough .....	25	6	17	2
Deal Borough .....	26	16	13	2
Eatontown Borough .....	113	33	33	1
Englishtown Borough .....	33	21	14	..
Fair Haven Borough .....	66	8	32	..
Farmingdale Borough .....	28	18	19	1
Fort Hancock .....	17	2	..	..
Fort Monmouth .....	63	98	2	2
Freehold Borough .....	140	100	91	4
Freehold Township .....	79	4	25	2
Highlands Borough .....	91	26	35	5
Holmdel Township .....	9	3	10	2
Howell Township .....	120	16	47	2
Interlaken Borough .....	9	6	9	..
Keansburg Borough .....	141	66	69	4
Keyport Borough .....	137	98	74	5
Little Silver Borough .....	31	12	24	2
Long Branch City .....	608	208	260	9
Manalapan Township .....	45	12	28	4
Manasquan Borough .....	70	61	48	1
Marlboro Township .....	39	12	29	..
Matawan Borough .....	129	39	67	4
Matawan Township .....	35	6	29	3
Middletown Township .....	287	83	152	6
Millstone Township .....	27	6	11	1
Monmouth Beach Borough .....	14	6	18	1
Neptune Township .....	277	67	192	6
Neptune City Borough .....	76	24	23	1
Ocean Township .....	141	16	59	4
Oceanport Borough .....	53	14	20	2
Raritan Township .....	62	4	22	..
Red Bank Borough .....	317	207	193	11
Roosevelt Borough .....	9	4	2	..
Rumson Borough .....	67	41	40	3
Sea Bright Borough .....	28	13	9	..
Sea Girt Borough .....	18	11	10	..
Shrewsbury Borough .....	29	13	13	1
Shrewsbury Township .....	71	15	15	1
South Belmar Borough .....	18	1	10	1
Spring Lake Borough .....	35	42	32	..
Spring Lake Heights Borough .....	28	14	23	1
Union Beach Borough .....	80	15	34	1
Upper Freehold Township .....	38	3	20	2
Wall Township .....	130	36	65	2
West Long Branch Borough .....	50	18	27	1
<b>Total</b> .....	<b>4674</b>	<b>2056</b>	<b>2482</b>	<b>126</b>

## DEPARTMENT OF HEALTH

## MORRIS COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Boonton Town .....	137	89	81	3
Boonton Township .....	15	5	11	2
Butler Borough .....	87	50	34	1
Chatham Borough .....	167	40	51	1
Chatham Township .....	23	2	14	..
Chester Borough .....	17	10	7	..
Chester Township .....	16	4	9	..
Denville Township .....	128	54	51	6
Dover Town .....	237	160	149	12
East Hanover Township .....	27	16	16	1
Florham Park Borough .....	39	6	32	1
Hanover Township .....	98	32	36	4
Harding Township .....	26	5	13	1
Jefferson Township .....	60	6	32	2
Kinnelon Borough .....	20	1	4	..
Lincoln Park Borough .....	64	18	26	2
Madison Borough .....	224	108	90	7
Mendham Borough .....	30	23	18	..
Mendham Township .....	16	5	9	..
Mine Hill Township .....	42	13	16	1
Montville Township .....	90	25	49	5
Morris Plains Borough .....	43	36	31	..
Morristown Town .....	367	191	225	11
Morris Township .....	110	22	53	3
Mountain Lakes Borough .....	58	16	14	1
Mount Arlington Borough .....	13	4	3	..
Mount Olive Township .....	64	10	32	1
Netcong Borough .....	58	65	20	2
Parsippany-Troy Hills Township .....	174	34	69	6
Passaic Township .....	70	32	37	..
Pequannock Township .....	89	30	35	4
Randolph Township .....	89	12	32	3
Riverdale Borough .....	23	8	12	1
Rockaway Borough .....	85	50	42	6
Rockaway Township .....	89	20	41	9
Roxbury Township .....	106	36	51	5
Washington Township .....	47	9	23	..
Wharton Borough .....	84	39	46	2
Total .....	3132	1286	1514	103

## OCEAN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Barnegat Light Borough .....	..	..	..	..
Bay Head Borough .....	16	4	8	..
Beach Haven Borough .....	24	15	9	..
Beachwood Borough .....	39	7	21	..
Berkeley Township .....	27	18	8	2
Brick Township .....	86	18	24	2
Dover Township .....	183	74	78	2
Eagleswood Township .....	13	4	12	1
Harvey Cedars Borough .....	..	1	4	..
Island Beach Borough .....	..	..	..	..
Island Heights Borough .....	21	9	7	..
Jackson Township .....	52	16	25	1
Lacey Township .....	22	12	14	..
Lakehurst Borough .....	115	13	15	1
Lakewood Township .....	212	143	172	4
Lavallette Borough .....	8	6	8	..
Little Egg Harbor Township .....	5	1	4	..
Long Beach Township .....	9	2	3	..
Manchester Township .....	9	3	5	..
Mantoloking Borough .....	..	..	2	..
Ocean Township .....	3	3	6	..
Ocean Gate Borough .....	14	1	4	1
Pine Beach Borough .....	12	4	3	..
Plumsted Township .....	62	29	18	1
Point Pleasant Borough .....	120	27	53	..
Point Pleasant Beach Borough .....	20	53	32	2

## OCEAN COUNTY—Continued

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Seaside Heights Borough .....	8	11	8	..
Seaside Park Borough .....	21	11	16	..
Ship Bottom-Beach Arlington Borough .....	6	2	6	..
South Toms River Borough .....	7	5	6	1
Stafford Township .....	19	8	14	..
Surf City Borough .....	10	1	..	..
Tuckerton Borough .....	26	14	27	1
Union Township .....	17	18	20	1
<b>Total</b> .....	<b>1188</b>	<b>588</b>	<b>632</b>	<b>20</b>

## PASSAIC COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bloomington Borough .....	73	24	21	2
Clifton City .....	1284	329	439	29
Haledon Borough .....	103	52	60	5
Hawthorne Borough .....	253	133	140	8
Little Falls Township .....	141	74	49	4
North Haledon Borough .....	53	21	36	1
Passaic City .....	1108	984	589	29
Paterson City .....	2769	1818	1648	74
Pompton Lakes Borough .....	74	87	30	1
Prospect Park Borough .....	110	70	55	3
Ringwood Borough .....	28	3	10	3
Totowa Borough .....	99	33	50	3
Wanaque Borough .....	95	35	42	3
Wayne Township .....	217	57	82	5
West Milford Township .....	79	27	31	2
West Paterson Borough .....	61	41	35	1
<b>Total</b> .....	<b>6547</b>	<b>3788</b>	<b>3317</b>	<b>173</b>

## SALEM COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Alloway Township .....	35	11	18	1
Elmer Borough .....	45	8	17	2
Elsinboro Township .....	30	1	11	..
Lower Alloways Creek Township .....	25	3	11	..
Lower Penns Neck Township .....	154	37	61	7
Mannington Township .....	52	4	30	3
Oldmans Township .....	38	10	21	4
Penns Grove Borough .....	261	84	72	5
Pilesgrove Township .....	31	9	16	..
Pittsgrove Township .....	42	20	26	4
Quinton Township .....	39	13	11	..
Salem City .....	250	83	111	11
Upper Penns Neck Township .....	84	32	37	..
Upper Pittsgrove Township .....	53	8	27	..
Woodstown Borough .....	55	43	35	..
<b>Total</b> .....	<b>1194</b>	<b>366</b>	<b>504</b>	<b>37</b>

## SOMERSET COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Bedminster Township .....	25	17	18	2
Bernards Township .....	71	29	54	3
Bernardsville Borough .....	75	45	37	2
Bound Brook Borough .....	237	147	74	3
Branchburg Township .....	19	10	20	1
Bridgewater Township .....	192	22	64	10
East Millstone Town .....	9	1	9	..
Far Hills Borough .....	30	6	5	1
Franklin Township .....	188	44	64	5
Green Brook Township .....	9	4	4	..
Hillsborough Township .....	84	17	22	..
Manville Borough .....	227	97	61	7
Millstone Borough .....	10	4	1	..
Montgomery Township .....	50	8	20	2
North Plainfield Borough .....	236	125	112	5
Peapack-Gladstone Borough .....	36	10	13	..
Raritan Town .....	97	77	40	2
Rocky Hill Borough .....	11	3	3	..
Somerville Borough .....	330	118	119	1
South Bound Brook Borough .....	93	22	26	1
Warren Township .....	62	13	23	3
Watchung Borough .....	29	21	16	1
Total .....	2120	840	805	49

## SUSSEX COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Andover Borough .....	7	6	12	..
Andover Township .....	25	5	9	..
Branchville Borough .....	17	15	15	1
Byram Township .....	6	..	7	1
Frankford Township .....	45	1	23	3
Franklin Borough .....	81	42	50	3
Fredon Township .....	13	4	5	1
Green Township .....	14	15	4	..
Hamburg Borough .....	38	33	6	1
Hampton Township .....	9	1	8	1
Hardyston Township .....	38	2	13	1
Hopatcong Borough .....	19	4	6	2
Lafayette Township .....	20	7	9	..
Montague Township .....	8	3	6	..
Newton Town .....	131	84	60	3
Ogdensburg Borough .....	29	8	12	2
Sandyston Township .....	16	8	9	..
Sparta Township .....	67	25	30	..
Stanhope Borough .....	30	21	17	1
Stillwater Township .....	27	6	14	..
Sussex Borough .....	41	51	25	1
Vernon Township .....	24	9	18	5
Walpack Township .....	9	..	5	1
Wantage Township .....	77	..	19	..
Total .....	791	350	382	27

## UNION COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Clark Township .....	78	19	22	1
Cranford Township .....	422	149	128	8
Elizabeth City .....	2373	1437	1153	63
Fanwood Borough .....	80	5	24	1
Garwood Borough .....	104	43	36	3
Hillside Township .....	341	138	125	4
Kenilworth Borough .....	106	13	31	2
Linden City .....	682	229	202	13
Mountainside Borough .....	30	17	11	1
New Providence Borough .....	55	20	33	1
New Providence Township .....	52	14	22	1
Plainfield City .....	957	465	423	22
Rahway City .....	444	245	223	14
Roselle Borough .....	364	143	126	11
Roselle Park Borough .....	211	78	88	6
Scotch Plains Township .....	174	40	53	5
Springfield Township .....	140	53	43	2
Summit City .....	320	190	190	6
Union Township .....	642	222	270	12
Westfield Town .....	380	195	198	6
Winfield Township .....	73	1	8	1
<b>Total .....</b>	<b>8028</b>	<b>3716</b>	<b>3409</b>	<b>183</b>

## WARREN COUNTY

NAME OF PLACE	Births	Marriages	Deaths	Deaths under one year
Allamuchy Township .....	20	—	10	1
Alpha Borough .....	48	42	21	3
Belvidere Town .....	54	29	56	1
Blairstown Township .....	35	21	26	1
Franklin Township .....	34	10	19	..
Frellinghuysen Township .....	11	2	4	..
Greenwich Township .....	36	20	13	2
Hackettstown Town .....	85	51	50	3
Hardwick Township .....	2	..	2	..
Harmony Township .....	30	9	17	2
Hope Township .....	13	2	10	1
Independence Township .....	24	12	11	..
Knowlton Township .....	12	7	18	2
Liberty Township .....	10	..	2	..
Lopatcong Township .....	9	4	18	2
Mansfield Township .....	19	11	11	..
Oxford Township .....	44	21	37	1
Pahaquarry Township .....	..	..	..	..
Phillipsburg Town .....	435	212	240	14
Pohatcong Township .....	41	12	15	2
Washington Borough .....	102	69	62	4
Washington Township .....	37	3	26	2
White Township .....	29	5	12	..
<b>Total .....</b>	<b>1130</b>	<b>542</b>	<b>680</b>	<b>41</b>
<b>State Total .....</b>	<b>97278</b>	<b>51913</b>	<b>48107</b>	<b>2589</b>

TABLE 2—DEATHS BY AGE PERIODS AND PERCENTAGES OF EACH OF TOTAL DEATHS, 1948

	AGE PERIODS																	
	Total	Under 1 year	1 year	2 years	3 years	4 years	Under 5 years	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
Deaths .....	48,107	2,589	178	102	80	59	3,008	213	392	932	1,684	3,793	7,897	11,139	11,668	6,439	942	....
Percentage of total...	100.0	5.4	0.4	0.2	0.2	0.1	6.3	0.4	0.8	1.9	3.5	7.9	16.4	23.2	24.2	13.4	2.0	....

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

CHART 1

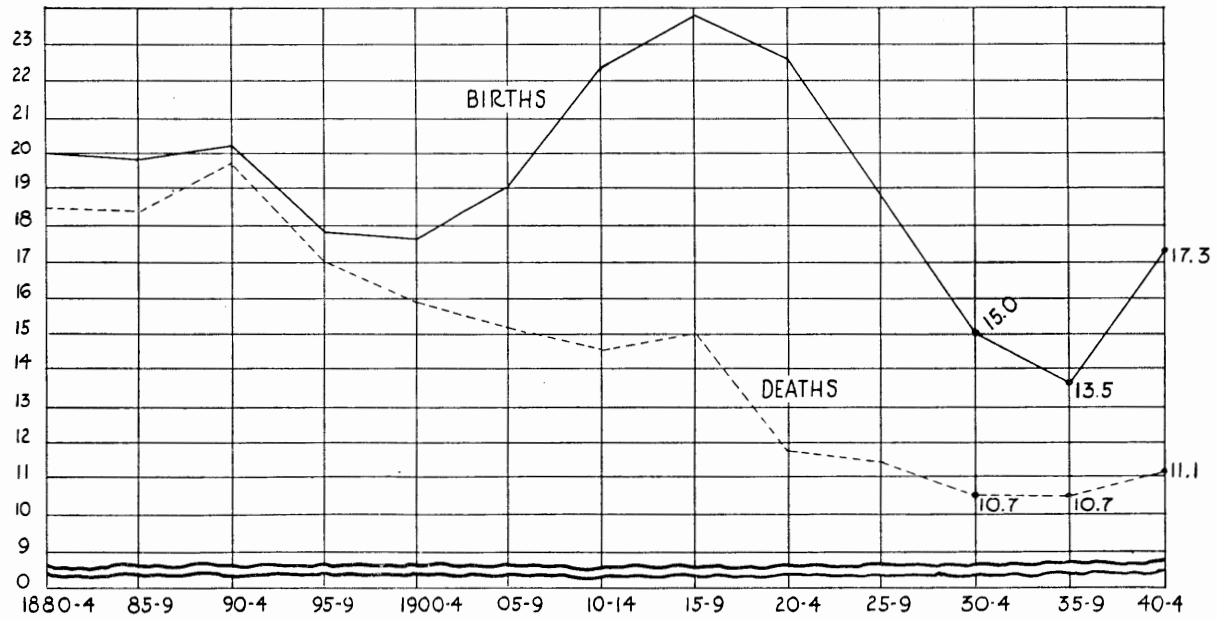


TABLE 3—NUMBER OF DEATHS AT ALL AGES, UNDER ONE YEAR OF AGE AND UNDER FIVE YEARS OF AGE, AND THEIR PERCENTAGES OF TOTAL DEATHS

CALENDAR YEAR	DEATHS IN NEW JERSEY				
	All Ages	Under one year		Under five years	
		Number	Percentage of Total	Number	Percentage of Total
1904	35,298	7,472	21.2	10,927	31.0
1905	33,864	6,951	20.5	9,864	29.1
1906	35,670	7,773	21.8	11,246	31.5
1907	37,408	7,732	20.7	10,867	29.0
1908	35,597	7,823	22.0	10,869	30.5
1909	36,359	7,658	21.1	11,137	30.6
1910	39,494	8,352	21.1	11,648	29.5
1911	38,612	7,642	19.8	10,740	27.8
1912	37,772	7,457	19.7	10,309	27.3
1913	39,425	7,542	19.1	10,686	27.1
1914	39,967	7,431	18.6	10,278	25.7
1915	39,435	7,077	17.9	9,828	24.9
1916	43,376	7,348	16.9	11,188	25.8
1917	43,532	7,582	17.4	10,267	23.6
1918	60,852	8,372	13.8	13,709	22.5
1919	39,979	6,111	15.3	8,661	21.7
1920	40,820	6,672	16.3	9,569	23.4
1921	37,362	5,773	15.4	8,047	21.5
1922	40,086	5,864	14.6	8,371	20.9
1923	42,294	5,368	13.0	7,727	18.7
1924	46,331	5,359	15.5	7,344	21.3
1925	41,749	5,109	12.3	6,997	16.8
1926	44,396	5,090	11.5	7,442	16.8
1927	41,562	4,464	10.7	6,045	14.5
1928	44,555	4,600	10.3	6,438	14.4
1929	45,746	4,116	9.0	5,795	12.6
1930	43,190	3,870	9.0	5,205	12.1
1931	44,135	3,649	8.3	4,916	11.1
1932	42,826	3,089	7.2	4,049	9.4
1933	43,380	2,608	6.0	3,512	8.1
1934	43,547	2,686	6.2	3,518	8.1
1935	43,267	2,539	5.9	3,291	7.6
1936	44,659	2,383	5.3	3,039	6.8
1937	45,312	2,170	4.8	2,870	6.3
1938	44,045	2,228	5.1	2,810	6.4
1939	43,837	2,180	5.0	2,677	6.1
1940	45,206	2,094	4.6	2,506	5.6
1941	45,971	2,392	5.2	2,809	6.1
1942	46,270	2,535	5.5	2,958	6.4
1943	49,781	2,782	5.6	3,258	6.5
1944	47,340	2,567	5.4	3,060	6.5
1945	47,633	2,470	5.2	2,943	6.2
1946	46,261	2,705	5.8	3,141	6.8
1947	48,276	2,959	6.1	3,387	7.0
1948	48,107	2,589	5.4	3,008	6.3

*Infant Mortality.*—The infant mortality rate for 1948 was 26.6 per 1,000 babies born alive. The rate for 1947 was 27.9 and the average annual rate for the five-year period, 1943-1947, was 30.9. Reference to Table 4 will show the great decrease in the infant death rate in New Jersey since baby welfare work was extensively undertaken in New Jersey.

*Colored Races.*—The infant mortality rate for the colored races was 45.5. The colored races have shown high mortality rates ever since vital records were first collected and analyzed.

*Maternal Mortality.*—The rate of 0.8 for 1948 was significantly lower than the rate for 1947 and was the lowest since such rates were first computed in 1906. The average annual rate for the five-year period, 1943-1947, was 1.4 per 1,000 live births. The colored maternal mortality rate for 1948 was 1.0.

*Stillbirths.*—There were 1,964 stillbirths reported during 1948. The number for the previous year was 2,265. The 1948 rate was 20 per 1,000 live births. The rate for the colored population was 33.

*Illegitimate Births.*—The number of illegitimate births reported for 1948 was 2,277, of which 1,174 were babies born to colored mothers.

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

Year	Births Reported	Deaths Under 1 Year of Age	Rates per 1,000 Live Births	Deaths Under 1 Month of Age	Rates per 1,000 Live Births	Still-births	Rates per 1,000 Live Births	Maternal Deaths	Rates per 1,000 Live Births
1906	42,677	7,773	182.1	2,545	59	2,399	56	322	7.5
1907	44,651	7,732	173.2	2,602	58	2,530	56	289	6.5
1908	47,405	7,823	165.2	2,655	56	2,617	55	329	6.9
1909	47,508	7,658	161.2	2,661	56	2,539	53	311	6.5
1910	53,942	8,352	154.8	2,801	51	2,737	50	377	6.9
1911	58,133	7,642	131.4	2,887	49	2,754	47	427	7.3
1912	60,073	7,457	124.1	2,836	47	2,953	49	415	6.9
1913	61,432	7,542	122.7	2,903	47	2,866	46	460	7.4
1914	65,403	7,431	113.6	2,995	45	3,074	47	416	6.3
1915	66,476	7,077	106.4	2,862	43	3,075	46	390	5.8
1916	70,211	7,348	104.7	3,075	43	3,221	45	383	5.4
1917	75,309	7,582	100.7	3,256	43	3,183	42	411	5.4
1918	74,549	8,372	112.3	3,175	42	3,525	47	417	5.5
1919	70,935	6,111	86.1	2,696	38	3,047	42	366	5.1
1920	76,431	6,672	87.2	2,961	38	3,221	42	472	6.1
1921	78,172	5,773	73.8	2,830	36	3,242	41	464	5.9
1922	74,479	5,864	78.7	2,773	37	3,033	40	466	6.2
1923	74,611	5,368	71.9	2,621	35	3,169	42	424	5.4
1924	76,530	5,359	70.0	2,739	35	3,177	41	466	6.0
1925	74,193	5,109	68.8	2,607	35	3,010	40	461	6.2
1926	72,386	5,090	70.3	2,537	35	3,018	41	394	5.4
1927	72,799	4,464	61.3	2,462	33	3,074	42	450	6.1
1928	70,076	4,600	65.6	2,485	35	2,864	40	406	5.7
1929	68,297	4,116	60.2	2,233	32	2,767	40	367	5.3
1930	68,282	3,870	56.6	2,107	30	2,647	38	390	5.7
1931	64,078	3,649	56.9	2,064	32	2,578	40	378	5.9
1932	61,215	3,089	50.4	1,802	29	2,343	38	351	5.7
1933	56,072	2,608	46.5	1,533	27	2,073	36	289	5.1
1934	54,841	2,686	48.9	1,634	29	2,025	36	294	5.3
1935	55,059	2,539	46.1	1,560	28	1,905	34	249	4.5
1936	54,145	2,383	44.0	1,449	26	1,846	34	202	3.7
1937	55,197	2,170	39.3	1,327	24	1,731	31	182	3.2
1938	56,602	2,228	39.3	1,365	24	1,704	30	191	3.3
1939	56,859	2,180	38.3	1,412	25	1,609	28	166	2.9
1940	59,328	2,094	35.3	1,422	24	1,543	26	172	2.9
1941	67,104	2,392	35.6	1,651	25	1,732	26	166	2.5
1942	80,812	2,535	31.4	1,821	22	2,006	25	152	1.9
1943	82,356	2,782	33.8	1,892	23	1,978	24	151	1.8
1944	75,652	2,567	33.9	1,756	23	1,744	23	119	1.6
1945	76,995	2,470	32.1	1,680	22	1,827	24	118	1.5
1946	95,044	2,705	28.5	2,020	21	2,127	22	119	1.3
1947	106,086	2,959	27.9	2,217	21	2,265	21	109	1.0
1948	97,278	2,589	26.6	1,961	20	1,964	20	76	0.8

TABLE 5—DEATHS UNDER ONE MONTH, STILLBIRTHS AND MATERNAL MORTALITY PER THOUSAND LIVE BIRTHS—1948

	<i>Rate Per 1,000 Live Births</i>		
	<i>Deaths Under One Month</i>	<i>Stillbirths</i>	<i>Maternal Deaths</i>
New Jersey .....	20	20	0.8
Atlantic County .....	19	22	..
Atlantic City .....	24	27	..
Bergen County .....	19	18	1.0
Burlington County .....	21	19	..
Camden County .....	20	20	0.5
Camden City .....	22	23	0.7
Cape May County .....	24	15	..
Cumberland County .....	24	15	0.5
Essex County .....	23	22	0.8
East Orange .....	20	22	2.0
Irvington .....	13	14	..
Newark .....	26	23	0.5
Gloucester County .....	18	25	1.5
Hudson County .....	18	19	1.0
Bayonne .....	20	15	0.6
Hoboken .....	17	16	0.9
Jersey City .....	20	19	1.1
Union City .....	17	17	0.9
Hunterdon County .....	31	21	1.3
Mercer County .....	20	19	0.8
Trenton .....	22	21	1.5
Middlesex County .....	18	16	0.7
Monmouth County .....	20	17	0.6
Morris County .....	25	18	0.3
Ocean County .....	14	22	1.7
Passaic County .....	20	25	1.2
Passaic City .....	21	29	1.8
Paterson .....	21	27	0.4
Salem County .....	23	18	..
Somerset County .....	19	25	..
Sussex County .....	29	33	1.3
Union County .....	17	20	0.9
Elizabeth .....	20	19	0.8
Warren County .....	26	18	..

Compiled in the Bureau of Vital Statistics and Administration, New Jersey State Department of Health, Trenton, New Jersey, August 3, 1949.

TABLE 7—BIRTHS, DEATHS UNDER ONE DAY, ONE WEEK, ONE MONTH AND ONE YEAR AND INFANT MORTALITY RATES (EXCLUSIVE OF STILLBIRTHS)—1948

	<i>Births (Exclusive of Stillbirths)</i>	<i>One Day</i>	<i>Deaths Under</i>		<i>One Year</i>	<i>Infant Mortality Rates</i>
			<i>One Week</i>	<i>One Month</i>		
New Jersey .....	97,278	953	1,700	1,961	2,589	27
Atlantic County .....	2,450	18	40	46	51	25
Atlantic City .....	1,176	9	23	28	36	31
Hammonton .....	150	..	..	..	..	..
Pleasantville .....	268	1	2	4	6	22
Bergen County .....	9,921	103	169	192	234	24
Bergenfield .....	271	3	3	4	5	18
Cliffside Park .....	310	1	3	3	3	10
Englewood .....	470	7	10	10	14	30
Fairview .....	181	1	2	2	3	17
Fort Lee .....	217	3	4	4	7	32
Garfield .....	574	7	12	16	19	33
Hackensack .....	556	8	17	18	20	36
Lodi .....	348	3	5	5	7	20
Lyndhurst Twp. ....	420	3	3	5	5	12
North Arlington .....	369	5	10	10	11	30
Ridgefield Park .....	217	2	3	3	4	18
Ridgewood .....	239	2	6	6	6	25
Rutherford .....	299	2	4	4	5	17
Teaneck Twp. ....	549	11	11	17	20	36
Wallington .....	168	1	3	3	3	18
Burlington County .....	2,576	28	50	55	73	28
Burlington City .....	306	3	6	7	10	33
Camden County .....	6,192	64	108	121	168	27
Audubon .....	198	..	1	1	1	5
Camden .....	2,801	36	56	62	86	31
Collingswood .....	353	2	7	7	9	25
Gloucester .....	321	2	3	3	5	16
Haddonfield .....	222	2	3	3	4	18
Pennsauken Twp. ....	289	1	2	4	7	24
Cape May County .....	667	13	15	16	23	34
Cumberland County .....	1,902	25	41	45	66	35
Bridgeton .....	442	3	7	10	17	38
Millville .....	389	5	9	9	12	31
Vineland .....	185	..	1	1	2	11
Essex County .....	18,027	173	352	407	513	28
Belleville .....	647	2	6	6	10	15
Bloomfield .....	891	7	19	20	21	24

	<i>Births</i> ( <i>Exclusive of</i> <i>Stillbirths</i> )	<i>One</i> <i>Day</i>	<i>Deaths Under</i> <i>One</i> <i>Week</i>	<i>One</i> <i>Month</i>	<i>One</i> <i>Year</i>	<i>Infant</i> <i>Mortality</i> <i>Rates</i>
East Orange .....	1,520	19	30	31	34	22
Irvington .....	1,082	3	10	14	19	18
Maplewood Township .....	348	3	8	8	9	26
Millburn Township .....	172	1	1	1	4	23
Montclair .....	813	6	12	14	20	25
Newark .....	9,562	102	212	250	316	33
Nutley .....	521	9	13	14	17	33
Orange .....	822	7	17	19	24	29
South Orange .....	205	..	2	3	5	24
West Orange .....	571	7	9	11	15	26
Gloucester County .....	1,983	16	29	35	54	27
Woodbury .....	254	..	1	2	2	8
Hudson County .....	13,554	138	210	250	333	25
Bayonne .....	1,670	12	24	33	39	23
Guttenberg .....	96	1	1	1	2	21
Harrison .....	304	3	4	6	8	26
Hoboken .....	1,071	14	18	18	27	25
Jersey City .....	6,609	73	110	129	175	26
Kearny .....	792	9	10	12	18	23
North Bergen Township ....	738	7	9	10	16	22
Secaucus .....	141	3	3	3	3	21
Union City .....	1,084	6	15	18	22	20
Weehawken .....	235	3	4	4	4	17
West New York .....	766	7	12	16	19	25
Hunterdon County .....	773	9	17	24	36	47
Mercer County .....	4,794	42	77	94	133	28
Princeton .....	235	1	1	2	3	13
Trenton .....	2,694	23	46	58	85	32
Middlesex County .....	5,635	42	93	104	136	24
Carteret .....	274	1	2	2	3	11
Highland Park .....	184	2	3	3	4	22
New Brunswick .....	914	7	17	19	26	28
Perth Amboy .....	873	5	17	20	29	33
Sayreville .....	196	3	3	3	3	15
South Amboy .....	217	2	2	2	4	18
South River .....	259	1	4	6	7	27
Woodbridge Township .....	735	6	11	12	14	19
Monmouth County .....	4,674	58	80	92	126	27
Asbury Park .....	401	9	13	15	17	42
Long Branch .....	608	4	7	7	9	15
Neptune Township .....	277	1	1	2	6	22
Red Bank .....	317	5	7	8	11	35

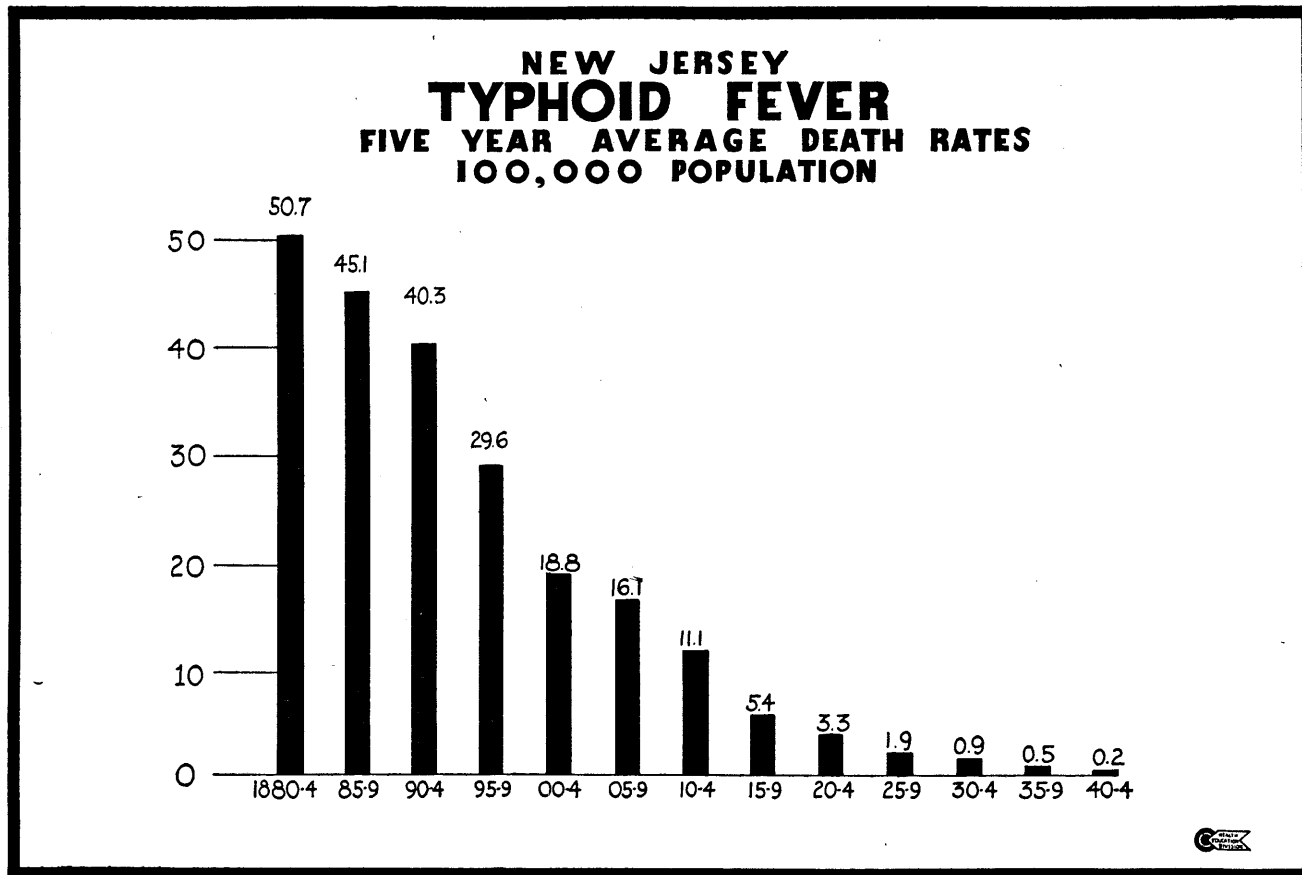
## DEPARTMENT OF HEALTH

	<i>Births (Exclusive of Stillbirths)</i>	<i>One Day</i>	<i>Deaths Under</i>		<i>One Year</i>	<i>Infant Mortality Rates</i>
			<i>One Week</i>	<i>One Month</i>		
Morris County .....	3,132	43	66	79	103	33
Dover .....	237	4	8	9	12	51
Madison .....	224	3	5	5	7	31
Morristown .....	367	4	8	8	11	30
Ocean County .....	1,188	8	16	17	20	17
Passaic County .....	6,547	68	118	131	173	26
Clifton .....	1,284	9	15	18	29	23
Hawthorne .....	253	4	6	7	8	32
Passaic .....	1,108	11	22	23	29	26
Paterson .....	2,769	28	52	57	74	27
Salem County .....	1,194	14	27	28	37	31
Salem City .....	250	6	9	10	11	44
Somerset County .....	2,120	20	37	40	49	23
Bound Brook .....	237	1	3	3	3	13
North Plainfield .....	236	..	4	4	5	21
Somerville .....	330	1	1	1	1	3
Sussex County .....	791	11	19	23	27	34
Union County .....	8,028	55	118	133	183	23
Cranford Township .....	422	2	5	5	8	19
Elizabeth .....	2,373	22	40	47	63	27
Hillside Township .....	341	..	2	2	4	12
Linden .....	682	4	6	7	13	19
Plainfield .....	957	5	15	18	22	23
Rahway .....	444	2	7	8	14	32
Roselle .....	364	5	9	10	11	30
Roselle Park .....	211	2	3	3	6	28
Summit .....	320	3	5	5	6	19
Union Township .....	642	6	9	9	12	19
Westfield .....	380	2	4	4	6	16
Warren County .....	1,130	5	18	29	41	36
Phillipsburg .....	435	1	8	11	14	32

Compiled in the State Department of Health, Bureau of Vital Statistics and Administration, July 29, 1949.

*Typhoid Fever.*—Seven deaths were reported for the year, a rate of 0.1 per 100,000 population. In 1947 the rate of 0.1 represented four deaths. The 1948 rate was low in comparison with the United States estimated rate of 0.2. Table 17 shows the distribution of typhoid fever deaths by age, sex and color. The number of deaths from typhoid fever by counties and cities may be obtained by referring to Table 20.

CHART 2



**TABLE 8—COMPARATIVE DEATH RATES FROM TYPHOID FEVER PER 100,000 POPULATION, IN THE REGISTRATION AREA OF U. S. AND IN N. J. FOR 10 YEARS**

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Registration area of the United States .....	1.5	1.0	0.8	0.5	0.5	0.4	0.4	0.2	0.2	0.2
New Jersey .....	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1

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

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Atlantic .....	2.4	8.8	...	1.6	...	...	0.9	...	...	...
Bergen .....	...	0.2	0.5	...	...	...	...	0.4	...	...
Burlington .....	1.0	...	...	...	...	...	...	...	1.1	...
Camden .....	1.2	...	0.4	...	0.4	...	0.8	...	...	0.8
Cape May .....	...	...	...	...	...	...	3.6	...	...	...
Cumberland .....	1.4	...	...	...	1.4	1.4	...	...	...	...
Essex .....	0.6	0.1	0.1	...	...	...	0.4	...	0.1	0.2
Gloucester .....	...	1.4	...	...	...	1.3	...	...	1.3	1.3
Hudson .....	...	0.3	...	0.2	...	0.5	...	...	...	0.1
Hunterdon .....	...	...	2.7	...	...	...	...	...	...	...
Mercer .....	...	1.0	...	...	...	...	...	...	0.5	0.5
Middlesex .....	...	0.9	0.5	...	0.4	...	...	...	...	...
Monmouth .....	...	0.6	0.6	0.6	0.6	...	...	...	...	...
Morris .....	...	...	...	...	...	0.8	...	...	...	...
Ocean .....	...	...	...	...	...	...	...	...	...	...
Passaic .....	0.3	...	0.3	0.3	...	0.3	...	...	...	2.2
Salem .....	2.4	...	...	...	...	...	...	2.2	...	2.2
Somerset .....	...	...	...	...	1.5	...	...	...	...	...
Sussex .....	...	...	...	...	...	...	...	...	...	...
Union .....	...	0.3	0.3	...	...	0.3	...	...	...	...
Warren .....	...	...	...	...	...	...	2.1	...	...	...
New Jersey .....	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1

*Smallpox.*—No deaths occurred during 1948. The one death which occurred in 1947 was the first reported death in New Jersey since 1925, when as in 1924, the disease was prevalent in epidemic form in certain sections of the State.

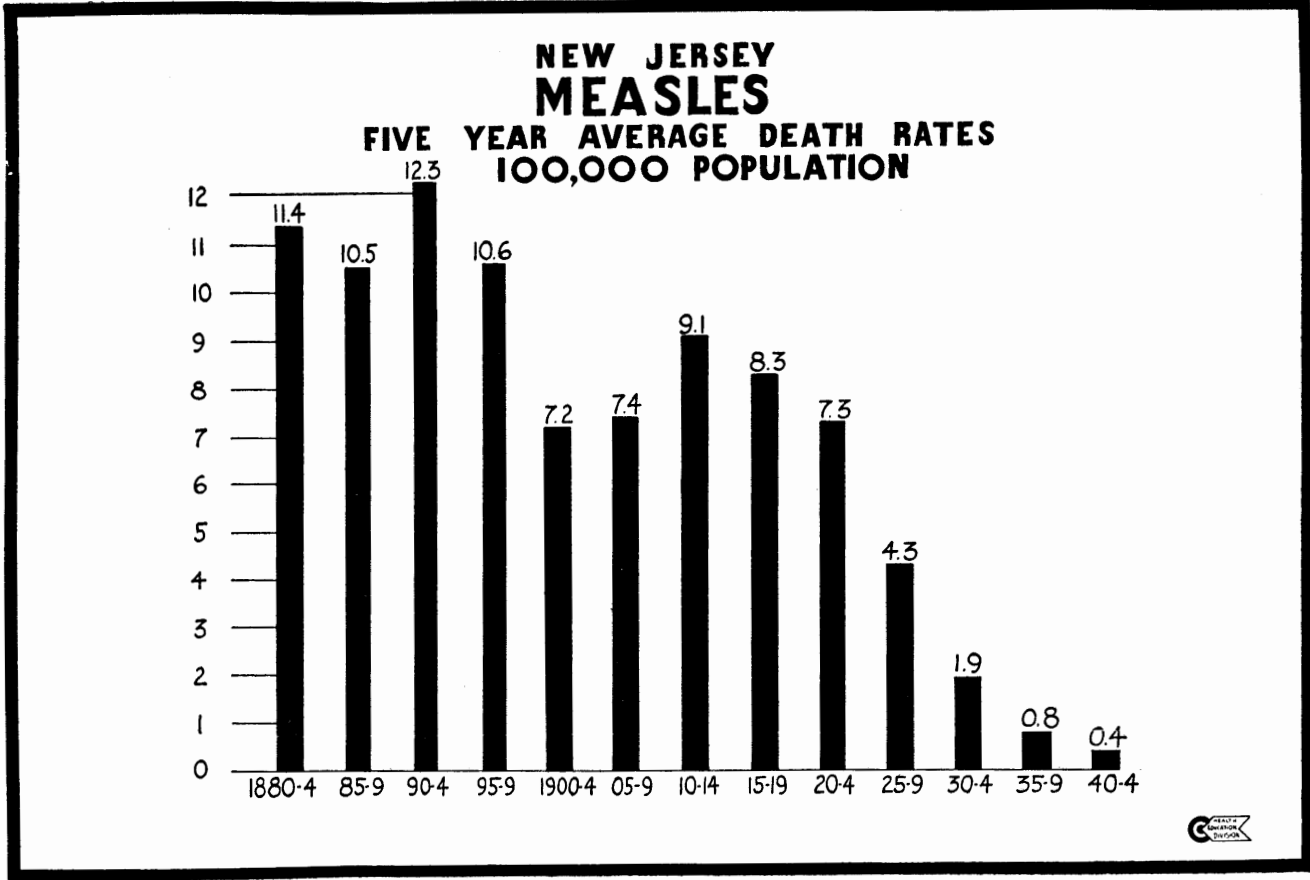
*Measles.*—Seventeen deaths occurred from this disease, equivalent to a rate of 0.4 per 100,000 population. Of these, two deaths were in the group under one year of age and nine were in the group under five years of age. In 1947 four deaths were reported, equivalent to a rate of 0.1.

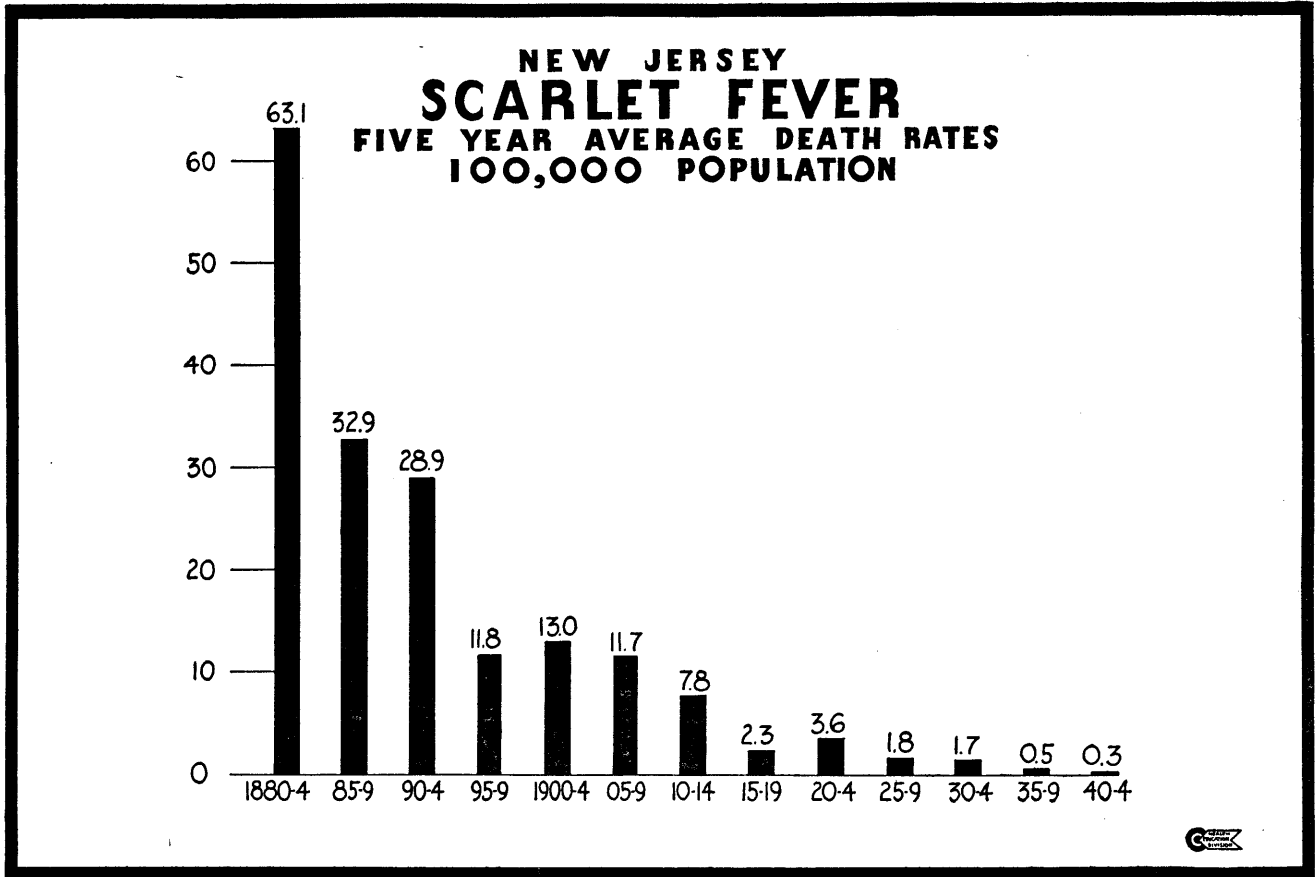
*Scarlet Fever.*—The number of deaths from scarlet fever was two, equivalent to a rate of less than 0.1 per 100,000 population. The number for the previous year was identical.

*Malaria.*—As the following figures show, deaths during recent years from this disease were practically negligible in the State :

1879..... 268	1896..... 119	1913..... 11	1931..... 0
1880..... 293	1897..... 132	1914..... 10	1932..... 3
1881..... 431	1898..... 82	1915..... 17	1933..... 1
1882..... 379	1899..... 96	1916..... 10	1934..... 0
1883..... 290	1900..... 84	1917..... 5	1935..... 6
1884..... 230	1901..... 50	1918..... 13	1936..... 3
1885..... 209	1902..... 36	1919..... 2	1937..... 0
1886..... 243	1903..... 40	1920..... 5	1938..... 1
1887..... 217	1904..... 47	1921..... 10	1939..... 1
1888..... 264	1905..... 21	1922..... 3	1940..... 0
1889..... 203	1906..... 33	1923..... 2	1941..... 0
1890..... 195	1907..... 29	1924..... 6	1942..... 3
1891..... 180	1908..... 30	1925..... 3	1943..... 2
1892..... 198	1909..... 25	1926..... 2	1944..... 0
1893..... 148	1910..... 25	1927..... 2	1945..... 3
1894..... 162	1911..... 25	1928..... 3	1946..... 2
1895..... 144	1912..... 29	1929..... 5	1947..... 1
		1930..... 5	1948..... 1

CHART 3





*Whooping Cough.*—This disease caused six deaths during 1948; for 1947 the number was twenty-four and for 1946, twenty-seven. The 1948 death rate was 0.1 per 100,000 population. All of the deaths occurred during the first year of life.

*Diphtheria.*—During 1948 four persons died from diphtheria and laryngeal croup, equivalent to a rate of 0.1 per 100,000 population. The death rate from diphtheria for 1888 was 148 per 100,000 population. During the decade beginning with 1900, the rate declined from forty-eight to twenty-five. The following ten-year period showed a decline to eighteen. The rate for 1948 was decidedly favorable when compared with the 1948 estimated rate for the United States, which was 0.4.

# NEW JERSEY WHOOPING COUGH FIVE YEAR AVERAGE DEATH RATES 100,000 POPULATION

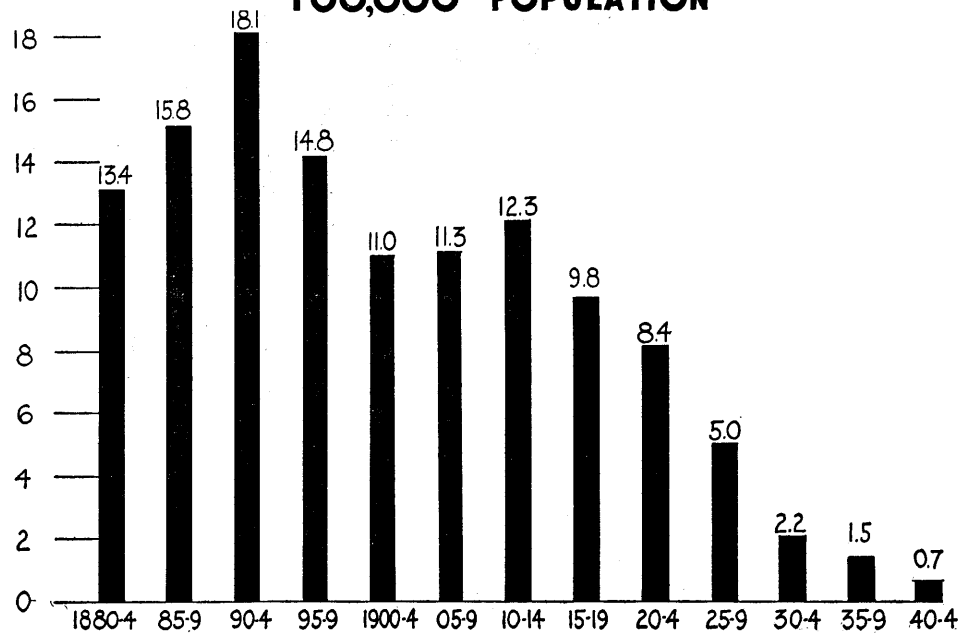


CHART 5



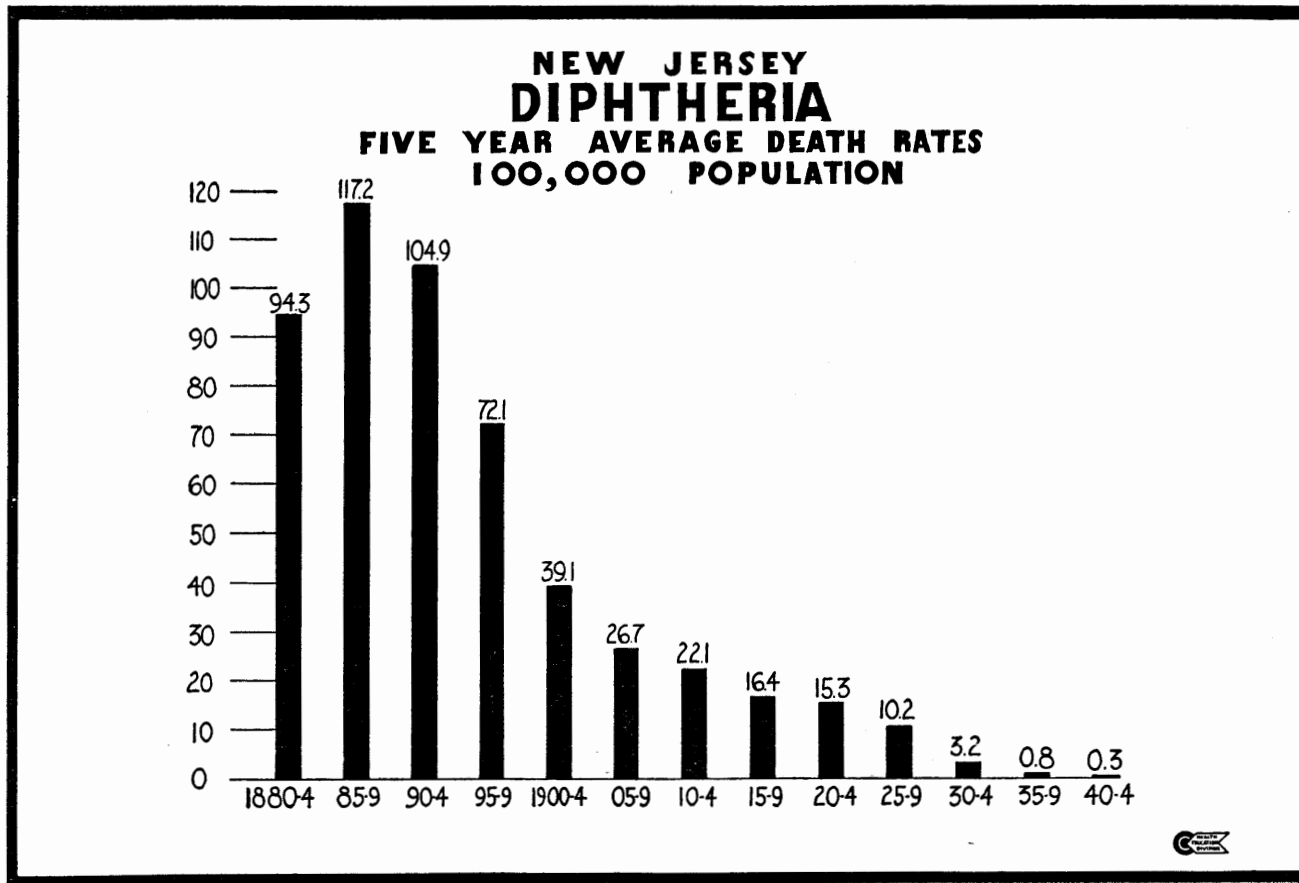


CHART 6



*Tuberculosis.*—The number of deaths from all forms of tuberculosis during 1948 was 1,388, of which 1,298 were deaths from tuberculosis of the respiratory system. The death rates per 100,000 population were 29.4 and 27.4 respectively. The rates for 1947 were 35.2 and 33.0.

*White.*—The number of deaths of white persons from all forms of tuberculosis was 1,064. This was equivalent to a rate of 23.8 per 100,000 white population. Data for 1947 were 1,174 and 28.0.

*Colored.*—The number of deaths from all forms of tuberculosis was 324 and the rate was 124.6 per 100,000 colored population. Figures for 1947 were 387 and 158.7.

Rates for tuberculosis of the respiratory system and other forms of tuberculosis, by color, may be obtained by reference to Table 15.

*Cancer.*—The number of deaths from cancer and other malignant growths for 1948 was 7,809, and the death rate was 165.1 per 100,000 population compared with 174.6 for the previous year. The mortality from the disease, with few exceptions, has steadily increased since the time records were first kept in New Jersey. This may be due, in some measure, to the increasing age of the population and also to more accurate diagnosis of the disease by physicians.

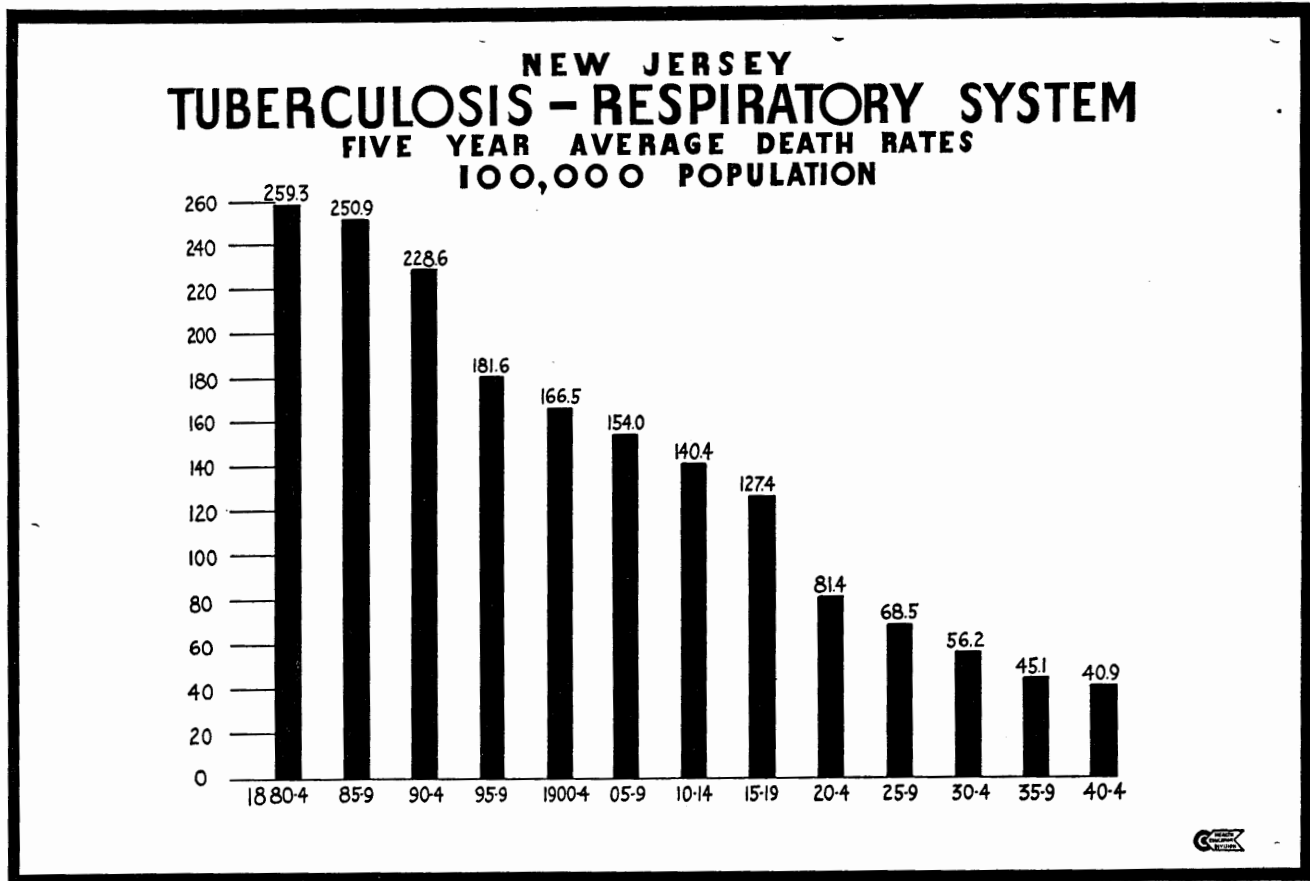


CHART 7



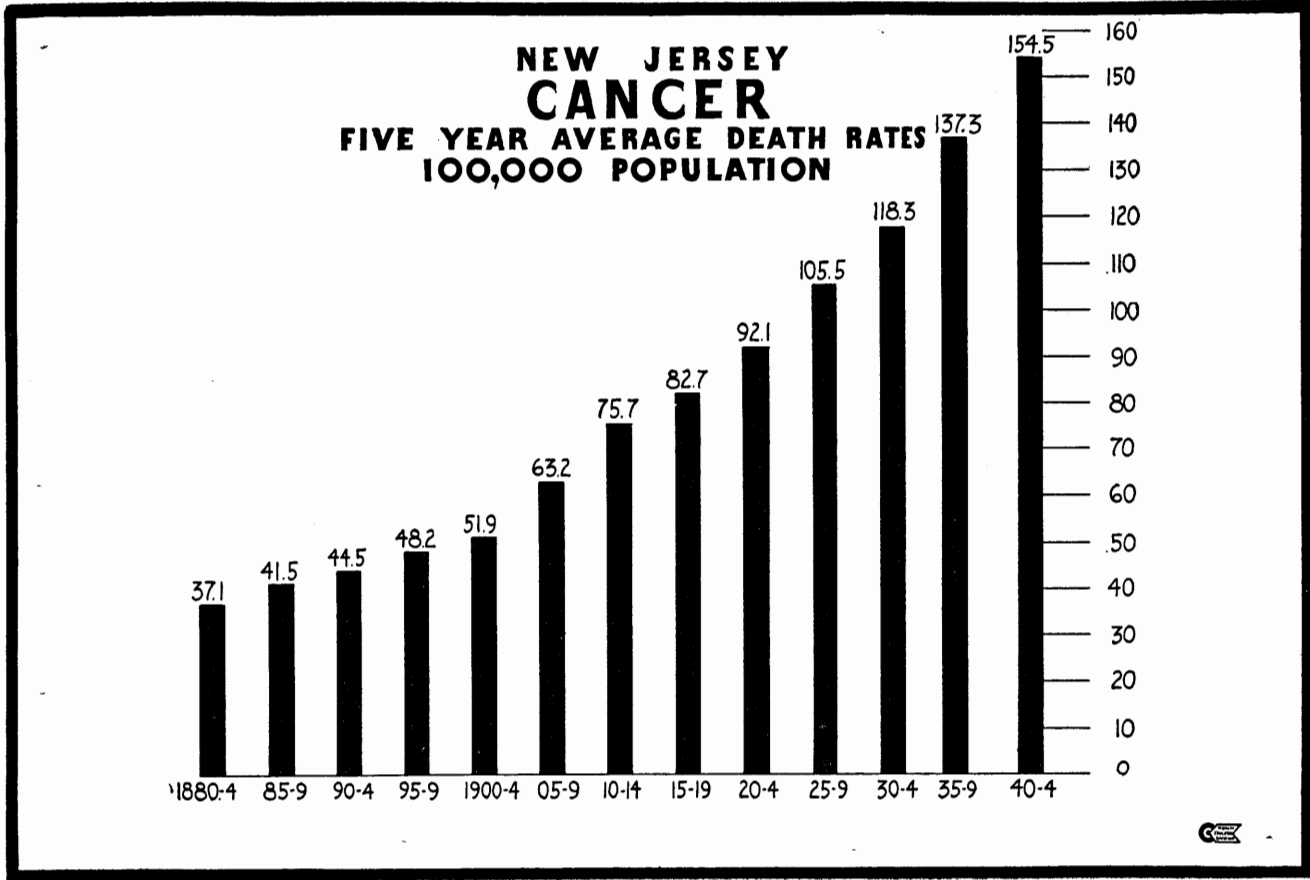


CHART 8

TABLE 12—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY ORGAN AFFECTED—NEW JERSEY, 1948

CANCER AND OTHER MALIGNANT TUMORS	AGE PERIODS																	Total			
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79		80 to 84	85 to 89	90 and over
Buccal Cavity and Pharynx—																					
Male .....								1			5	8	14	28	32	28	22	21	15	10	184
Female .....										1		2	4	2	3	5	6	4	1	2	29
Total .....								1		6	8	16	32	34	31	27	26	19	11	2	213
Digestive Organs and Peritoneum—																					
Male .....	1		1		1		8	17	26	58	100	181	259	291	342	299	248	111	53	13	2009
Female .....	1			2	2	1	9	13	28	51	66	129	194	212	248	258	214	145	64	18	1655
Total .....	2		1	2	3	1	17	30	54	109	166	310	453	503	590	557	462	256	117	31	3664
Respiratory System—																					
Male .....			1			3		5	11	27	53	84	117	157	115	73	44	16	6		712
Female .....		1	1	1		1		1	4	6	5	17	13	19	21	18	15	10	3		136
Total .....		1	2	1		4		6	15	33	58	101	130	176	136	91	59	26	9		848
Uterus—Female .....	1						2	3	9	17	32	43	75	85	72	66	60	45	21	8	542
Other Female Genital Organs .....							6	3	10	17	23	44	31	36	22	19	17	6	3		236
Breast—															1		1	1	1		5
Male .....																					
Female .....							1	2	10	44	54	90	100	113	78	84	91	61	43	14	793
Total .....							1	2	10	44	54	90	100	113	79	84	92	62	44	15	798
Male Genital Organs .....		1			1	3	3	5	3	5	2	14	23	50	61	81	95	48	22	2	419
Urinary Organs (Male and Female)—																					
Male .....	1	6				1	1		4	8	21	25	32	48	51	49	27	20	6	1	301
Female .....		1				2	1	1	1	1	6	4	9	12	21	17	19	9	6		110
Total .....	1	7				3	2	1	5	9	27	29	41	60	72	66	46	29	12	1	411

Skin (Except Vulva and Scrotum)—																						
Male .....	1						1		1	2	2	...	3	4	2	9	8	8	7	2	1	51
Female .....				1		1		1	1	1	...	5	1	2	7	3	4	7	4	8	3	48
Total .....	1			1		2		2	3	2	5		4	6	9	12	12	15	11	10	4	99
Brain and Other Parts of the Central Nervous System (Including Glioma, Except When Specified as Benign)—																						
Male .....	2	6	3	1	2	1	1	1	6	10	10		17	12	7	10	2	1				92
Female .....	1	3	4	...	1	2	...	2	1	4	2		5	9	6	5	2	...	1			48
Total .....	3	9	7	1	3	3	1	3	7	14	12		22	21	13	15	4	1	1			140
Other and Unspecified Organs—																						
Male .....		6	1	1	3	3	3	6	7	13	15		16	37	31	33	30	17	8	2		232
Female .....	1	2	2	1	2	2	3	3	1	6	16		17	34	26	26	29	20	9	6	1	207
Total .....	1	8	3	2	5	5	6	9	8	19	31		33	71	57	59	59	37	17	8	1	439
Total Male .....	5	19	6	2	7	12	16	36	59	128	209		354	512	619	649	565	462	226	102	17	4005
Total Female .....	4	7	7	5	5	12	23	43	107	172	256		394	494	470	499	503	408	252	113	35	3804
Total Male and Female .....	9	26	13	7	12	24	39	79	166	300	465		748	1006	1089	1148	1068	865	478	215	52	7809

TABLE 12A—DEATHS FROM CANCER AND OTHER MALIGNANT TUMORS BY PART OF BODY  
AFFECTED AND COLOR OF DECEDENT—NEW JERSEY—1948

	Total		White		Colored			Total		White		Colored	
	M	F	M	F	M	F		M	F	M	F	M	F
Cancer of the buccal cavity and pharynx .....	184	29	178	27	6	2	Cancer of the breast .....	5	793	5	750	..	43
Lip .....	17	1	17	1	..	..	Cancer of the male genital organs ...	419	..	391	..	28	..
Tongue .....	49	9	47	9	2	..	Scrotum .....	..	..	..	..	..	..
Mouth .....	33	7	33	7	..	..	Prostate .....	381	..	355	..	26	..
Jaw bone .....	15	6	15	4	..	2	Testes .....	27	..	27	..	..	..
Unspecified parts of the buccal cavity .....	1	..	1	..	..	..	Penis .....	11	..	9	..	2	..
Pharynx .....	69	6	65	6	4	..	Other and unspecified sites .....	..	..	..	..	..	..
Cancer of the digestive organs and peritoneum .....	2009	1655	1892	1572	117	83	Cancer of the urinary organs .....	301	110	289	101	12	9
Esophagus .....	143	38	122	35	21	3	Kidney .....	94	32	87	30	7	2
Stomach .....	670	417	620	393	50	24	Bladder .....	203	77	198	70	5	7
Duodenum .....	4	4	4	4	..	..	Other and unspecified sites .....	4	1	4	1	..	..
Rectum and anus .....	323	237	308	223	15	14	Cancer of the skin (except vulva and scrotum) .....	50	49	50	47	..	2
Intestines (except duodenum and rectum) .....	467	553	449	526	18	27	Cancer of the brain and other parts of the central nervous system (including glioma, except when specified as benign) .....	92	48	90	46	2	2
Liver and biliary passages .....	161	229	154	221	7	8	Glioma .....	61	24	60	23	1	1
Pancreas .....	172	121	167	117	5	4	Other and unspecified cancers of the brain and central nervous system .....	31	24	30	23	1	1
Mesentery and peritoneum .....	34	30	34	29	..	1	Cancer of other and unspecified organs .....	232	207	223	193	9	14
Other and unspecified sites .....	35	26	34	24	1	2	Adrenal gland .....	4	4	4	4	..	..
Cancer of the respiratory system ....	712	136	679	133	33	3	Bone (except jaw bone and accessory sinuses) .....	35	28	35	27	..	1
Larynx .....	72	6	70	6	2	..	Thyroid gland .....	8	19	8	19	..	..
Trachea .....	3	..	2	..	1	..	Nasal cavity and accessory sinuses .....	2	6	2	6	..	..
Bronchus .....	236	26	227	24	9	2	Other and specified organs .....	183	150	174	137	9	13
Lung .....	372	96	352	95	20	1							
Pleura .....	3	1	3	1	..	..							
Mediastinum and unspecified sites ..	26	7	25	7	1	..							
Cancer of the uterus .....	..	542	..	491	..	51							
Cervix .....	..	227	..	204	..	23							
Other and unspecified sites .....	..	315	..	287	..	28							
Cancer of other female genital organs ..	..	236	..	228	..	8							
Ovary .....	..	210	..	203	..	7							
Fallopian tube and parametrium ...	..	2	..	2	..	..							
Vagina .....	..	7	..	7	..	..							
Vulva .....	..	17	..	16	..	1							
Other and unspecified sites .....	..	..	..	..	..	..							
Grand Totals .....	4005	3804	3798	3587	207	217							

*Encephalitis Lethargica or Sleeping Sickness.*—Sixteen deaths were assigned to this classification for the year 1948. In 1922, which was the year that such deaths were first separately classified, there were forty-five deaths. Eighteen deaths were recorded in 1947.

*Nephritis.*—Deaths due to nephritis totaled 2,545, compared with 2,629 for the previous year.

*Suicide.*—While deaths by this means increased considerably during the period 1926 to 1932, a reversal of trend started in 1933 and continued through 1936. Deaths for 1948 showed an increase of sixty-three over the number for 1947. Of the various means employed, poisonous gases held first place with hanging or strangulation and firearms in second and third places respectively. The number of deaths by suicide for ten years follows:

1939 .....	563	1944 .....	483
1940 .....	664	1945 .....	519
1941 .....	598	1946 .....	566
1942 .....	537	1947 .....	526
1943 .....	492	1948 .....	589

TABLE 13A—VIOLENT OR ACCIDENTAL DEATHS IN NEW JERSEY—1948  
(International Classification Numbers 163-195)

<b>SUICIDE BY SOLID OR LIQUID POISONS</b>		<b>ACCIDENTAL ABSORPTION OF POISONOUS GAS</b>	
Arsenic and compounds .....	2	Illuminating gas .....	106
Barbituric acid and derivatives .....	22	Motor vehicle exhaust gas .....	2
Cresol compounds .....	..	Other carbon monoxide gas .....	20
Mercury and compounds .....	1	Other poisonous gases .....	5
Nux vomica and strychnine .....	3	<b>ACUTE ACCIDENTAL POISONING BY SOLIDS AND LIQUIDS</b>	
Carbolic acid and phenol .....	2	Arsenic and compounds .....	1
Other solid or liquid poisons .....	15	Barbituric acid and derivatives .....	8
<b>SUICIDE BY POISONOUS GASES</b>		Cresol compounds .....	..
Illuminating gas .....	171	Mercury and compounds .....	1
Motor vehicle exhaust gas .....	28	Nux vomica and strychnine .....	..
Other carbon monoxide gas .....	..	Carbolic acid and phenol .....	..
Other poisonous gases .....	1	Lye and potash .....	2
<b>SUICIDE BY OTHER MEANS</b>		Tobacco and derivatives .....	..
Hanging or strangulation .....	169	Narcotics .....	..
Drowning .....	22	Methanol and other alcohols .....	11
Firearms and explosives .....	121	Other and unspecified substances .....	10
Cutting or piercing instruments .....	24	Conflagration .....	99
Jumping from high places .....	16	Accidental burns (except due to conflagration) .....	92
Crushing .....	4	Accidental mechanical suffocation .....	43
Other or unspecified means .....	4	Accidental drowning .....	176
Infanticide (homicide of infants under 1 year of age) .....	9	Accidental injury by firearms .....	19
Homicide by firearms .....	46	Accidental injury by cutting or piercing instruments .....	3
Homicide by cutting or piercing instruments .....	38	<b>ACCIDENTAL INJURY BY FALL OR CRUSHING</b>	
Homicide by other means .....	34	Fall .....	849
Railway accidents (except collisions with motor vehicles) .....	50	Crushing .....	11
<b>MOTOR VEHICLE ACCIDENTS</b>		Cataclysm (all deaths attributed to a cataclysm regardless of their nature) .....	..
Collisions between automobiles and trains .....	27	Injury by animals (not specified as venomous or occurring in the course of agricultural and forestry operations) .....	..
Collisions between automobiles and streetcars .....	..	Hunger or thirst .....	..
Automobile accidents (except collisions with trains or streetcars) .....	577	Excessive cold .....	9
Motorcycle accidents (except collisions with automobiles) .....	16	Excessive heat .....	43
<b>STREETCAR AND OTHER ROAD-TRANSPORT ACCIDENTS</b>		Lightning .....	2
Streetcar accidents (except collisions with trains or motor vehicles) .....	5	Accidents due to electric currents (except lightning) .....	20
Other and unspecified road-transport accidents .....	..	Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations) .....	..
Water-transport accidents .....	34	<b>OTHER ACCIDENTS</b>	
Air-transport accidents .....	30	Sequelae of preventive immunization, inoculation or vaccination ..	1
Accidents in mines and quarries .....	3	Other accidents due to medical or surgical intervention .....	..
<b>AGRICULTURAL AND FORESTRY ACCIDENTS</b>		Lack of care of the new born .....	2
Accidents involving agricultural machinery and vehicles .....	3	Obstruction, suffocation or puncture by ingested objects .....	35
Injury by animals in agriculture .....	1	Other and unspecified accidents .....	92
Other agricultural accidents .....	..		
Accidents involving forestry machinery and vehicles .....	..		
Other forestry accidents .....	..		
Other accidents involving machinery .....	24		
Food poisoning .....	3		

TABLE 13B—MOTOR VEHICLE FATALITIES IN NEW JERSEY  
BY TYPE OF ACCIDENT—1948

Total .....	620
Collision with	
Railroad train .....	28
Street car .....	..
Horse-drawn vehicle .....	..
Motorcycle .....	9
Pedestrian .....	280
Bicycle .....	13
Other motor vehicle .....	149
Fixed object .....	99
Non-collision .....	42
Type not stated .....	..

TABLE 13C—ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF  
DEATH AND PLACE OF OCCURENCE—1948

(International Classification Numbers 169-195)

	<i>Total</i>	<i>Home</i>	<i>Accidents in</i>			<i>Other</i>	<i>Not Stated</i>
			<i>Farm</i>	<i>Industrial Place</i>	<i>Public Place</i>		
Total .....	2,435	998	10	183	1,201	..	43
Poisonous gas .....	173	156	..	6	11	..	..
Burns .....	186	126	2	28	30	..	..
Mechanical suffocation .....	43	37	..	3	3	..	..
Drowning .....	210	8	..	7	195	..	..
Cutting or piercing .....	4	..	..	1	3	..	..
Fall .....	869	566	1	53	246	..	3
Crushing, landslide .....	740	17	5	53	662	..	3
Electric currents .....	21	3	..	14	4	..	..
Other and unspecified injuries	189	85	2	18	47	..	37

These totals vary, in some instances, from figures in the other tabulations of accidental deaths. The deaths are classified by the immediate causes irrespective of the nature of the accidents.

TABLE 13D—DEATHS IN NEW JERSEY FROM CERTAIN TYPES OF ACCIDENTS  
BY PLACE OF ACCIDENT—1948  
(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total .....	2,435	620	849	191	176
Atlantic County .....	90	28	24	7	11
Bergen County .....	195	48	87	10	14
Burlington County .....	72	17	17	9	15
Camden County .....	139	48	43	12	9
Cape May County .....	27	3	6	1	11
Cumberland County .....	54	14	11	8	8
Essex County .....	390	67	183	30	17
Gloucester County .....	66	30	16	6	5
Hudson County .....	332	50	153	20	20
Hunterdon County .....	31	11	9	3	1
Mercer County .....	129	43	51	13	3
Middlesex County .....	155	52	28	21	9
Monmouth County .....	144	42	40	19	10
Morris County .....	107	28	33	6	11
Ocean County .....	54	12	11	1	11
Passaic County .....	123	26	45	9	7
Salem County .....	31	19	2	3	..
Somerset County .....	40	15	10	3	1
Sussex County .....	44	14	9	1	2
Union County .....	152	30	51	8	6
Warren County .....	40	19	9	1	4
Other states .....	16	4	10	..	1
Not stated .....	4	..	1	..	..

TABLE 13E—ACCIDENTAL DEATHS IN NEW JERSEY BY MONTH OF DEATH—1948  
(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
Total .....	2,435	620	849	191	176
January .....	207	32	80	27	1
February .....	185	34	72	31	6
March .....	196	46	75	14	12
April .....	174	37	64	23	8
May .....	222	47	90	7	21
June .....	199	60	54	9	36
July .....	195	50	75	5	34
August .....	242	60	78	4	25
September .....	189	65	53	14	15
October .....	198	52	75	12	8
November .....	197	73	67	9	3
December .....	231	64	66	36	7

TABLE 13F—ACCIDENTAL DEATHS IN NEW JERSEY BY AGE OF DECEASED—1948

(International Classification Numbers 169-195)

	<i>Total Accidental Deaths</i>	<i>Motor Vehicle</i>	<i>Falls</i>	<i>Burns</i>	<i>Drowning</i>
All ages .....	2,435	620	849	191	176
Under 1 year .....	73	..	3	6	..
1 to 4 .....	90	23	6	24	20
5 to 9 .....	86	32	1	20	20
10 to 14 .....	56	12	5	5	19
15 to 19 .....	81	30	6	..	22
20 to 24 .....	141	84	9	8	15
25 to 64 .....	969	292	209	84	70
65 and over .....	939	147	610	44	10

TABLE 14—PERCENTAGE OF THE VARIOUS CAUSES OF TOTAL DEATHS AND EACH SEX OF TOTAL, IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	Percentage of Total	Males—Percentage of Total	Females—Percentage of Total
	ALL CAUSES	100.0	55	45
1	Typhoid and paratyphoid fevers .....	0.0	71	29
2	Plague .....	0.0	..	..
3	Scarlet fever .....	0.0	..	100
4	Whooping cough .....	0.0	17	83
5	Diphtheria .....	0.0	50	50
6	Tuberculosis of the respiratory system .....	2.7	69	31
7	All other forms of tuberculosis .....	.2	64	36
8	Malaria .....	0.0	100	..
9	Syphilis .....	0.6	72	28
10	Influenza .....	0.1	52	48
11	Smallpox .....	0.0	..	..
12	Measles .....	0.0	53	47
13	Typhus fever .....	0.0	..	..
14	Other infectious or parasitic diseases .....	0.5	63	37
15	Cancer and other malignant tumors .....	16.2	51	49
16	Nonmalignant tumors or tumors of unspecified nature .....	0.4	38	62
17	Chronic rheumatism and gout .....	0.1	28	72
18	Diabetes mellitus .....	3.2	33	67
19	Chronic or acute alcoholism .....	0.1	90	10
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	1.1	51	49
21	Meningitis (nonmeningococcal) and diseases of the spinal cord ..	0.3	59	41
22	Intracranial lesions of vascular origin .....	8.5	46	54
23	Other diseases of the nervous system and sense organs .....	0.6	52	48
24	Diseases of the heart .....	36.6	58	42
25	Other diseases of the circulatory system .....	3.1	51	49
26	Bronchitis .....	0.3	67	33
27	Pneumonia and bronchopneumonia .....	2.7	57	43
28	Other diseases of the respiratory system .....	0.7	61	39
29	Diarrhea and enteritis .....	0.2	57	43
30	Appendicitis .....	0.3	56	44
31	Diseases of the liver and biliary passages .....	1.9	58	42
32	Other diseases of the digestive system .....	1.8	65	35
33	Nephritis .....	5.3	51	49
34	Other diseases of the urinary and genital systems .....	0.8	74	26
35	Puerperal infection .....	0.0	..	100
36	Other diseases of pregnancy, childbirth, and the puerperium .....	0.1	..	100
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	0.1	42	58
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	4.4	59	41
39	Senility, old age .....	0.4	42	58
40	Suicide .....	1.2	73	27
41	Homicide .....	0.3	63	37
42	Automobile accidents (all motor-driven road vehicles) .....	1.3	78	22
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	8.7	61	39
44	Causes of death ill-defined, unknown, or unspecified .....	0.2	67	33

TABLE 15—DEATH RATES, TOTAL WHITE AND COLORED, FROM IMPORTANT CAUSES, PER 100,000 TOTAL, WHITE AND COLORED POPULATION IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	Total Deaths per 100,000 Estimated Population	White Deaths per 100,000 Estimated White Population	Colored Deaths per 100,000 Estimated Colored Population
	ALL CAUSES	1017.3	995.7	1388.3
1	Typhoid and paratyphoid fevers .....	0.1	0.1	0.0
2	Plague .....	...	...	...
3	Scarlet fever .....	0.0	0.0	...
4	Whooping cough .....	0.1	0.1	1.2
5	Diphtheria .....	0.1	0.1	0.4
6	Tuberculosis of the respiratory system .....	27.4	22.6	111.5
7	All other forms of tuberculosis .....	1.9	1.3	13.1
8	Malaria .....	0.0	0.0	...
9	Syphilis .....	6.0	4.1	37.7
10	Influenza .....	0.8	0.8	1.9
11	Smallpox .....	...	...	...
12	Measles .....	0.4	0.4	0.4
13	Typhus fever .....	...	...	...
14	Other infectious or parasitic diseases .....	5.1	4.8	10.4
15	Cancer and other malignant tumors .....	165.1	165.3	163.0
16	Nonmalignant tumors or tumors of unspecified nature .....	3.6	3.2	10.0
17	Chronic rheumatism and gout .....	1.2	1.2	0.8
18	Diabetes mellitus .....	33.0	33.1	31.5
19	Chronic or acute alcoholism .....	1.2	0.9	6.5
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	11.1	11.1	12.3
21	Meningitis (nonmeningococcal) and diseases of the spinal cord ..	...	...	...
22	Intracranial lesions of vascular origin .....	2.6	2.4	6.9
23	Other diseases of the nervous system and sense organs .....	86.6	85.4	107.7
24	Diseases of the heart .....	6.1	6.0	8.8
25	Other diseases of the circulatory system .....	372.6	374.0	347.6
26	Bronchitis .....	31.6	31.9	26.1
27	Pneumonia and bronchopneumonia .....	2.5	2.5	2.7
28	Other diseases of the respiratory system .....	27.0	24.8	65.4
29	Diarrhea and enteritis .....	7.0	6.8	11.5
30	Appendicitis .....	1.9	1.8	3.5
31	Diseases of the liver and biliary passages .....	3.0	2.9	4.6
32	Other diseases of the digestive system .....	19.7	20.0	13.8
33	Nephritis .....	18.6	18.5	20.8
34	Other diseases of the urinary and genital systems .....	53.8	50.6	108.8
35	Puerperal infection .....	8.5	8.3	11.5
36	Other diseases of pregnancy, childbirth, and the puerperium ...	0.4	0.4	0.8
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	1.2	1.1	2.7
	.....	1.4	1.3	3.8
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	45.0	41.3	109.2
39	Senility, old age .....	3.6	3.6	3.1
40	Suicide .....	12.5	12.7	8.8
41	Homicide .....	2.6	1.5	21.5
42	Automobile accidents (all motor-driven road vehicles) .....	12.7	12.5	16.6
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	37.3	34.9	77.3
44	Causes of death ill-defined, unknown, or unspecified .....	1.8	1.6	3.8

TABLE 16—DEATHS (EXCLUSIVE OF STILLBIRTHS) BY CAUSES AND MONTHS OF DEATHS, IN NEW JERSEY—1948

Alphabetical Order Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
	ALL CAUSES .....	48,107	4646	4231	4346	4007	4061	3858	3628	3935	3486	3857	3834	4218
1	Typhoid and paratyphoid fevers .....	7	.....	.....	.....	1	1	.....	2	1	.....	1	1	.....
2	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
3	Scarlet fever .....	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
4	Whooping cough .....	6	2	.....	.....	1	1	.....	.....	1	.....	1	.....	.....
5	Diphtheria .....	4	1	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....
6	Tuberculosis of the respiratory system .....	1298	115	107	118	105	113	112	126	111	103	90	96	102
7	All other forms of tuberculosis .....	90	7	5	10	13	4	2	7	9	9	11	6	7
8	Malaria .....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis .....	282	30	16	29	18	24	18	13	26	26	30	23	29
10	Influenza .....	40	12	5	9	5	3	1	1	2	.....	1	1	.....
11	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles .....	17	1	3	1	1	6	2	3	.....	.....	.....	.....	.....
13	Typhus fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases .....	240	13	21	13	13	16	22	14	35	31	34	10	18
15	Cancer and other malignant tumors .....	7809	668	609	656	640	662	660	622	711	623	634	671	653
16	Nonmalignant tumors or tumors of unspecified nature .....	108	19	15	15	17	9	13	17	14	10	14	14	11
17	Chronic rheumatism and gout .....	57	7	4	5	3	4	6	3	3	4	6	8	4
18	Diabetes mellitus .....	1560	131	128	143	131	114	109	113	143	125	129	135	159
19	Chronic or acute alcoholism .....	59	4	8	6	10	4	2	5	4	3	.....	1	12
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	527	42	60	49	40	46	46	40	48	32	40	39	45
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	124	16	6	10	10	13	4	16	11	13	7	7	11
22	Intracranial lesions of vascular origin .....	4095	406	358	316	345	318	363	307	337	303	344	346	352
23	Other diseases of the nervous system and sense organs .....	290	32	17	29	27	16	22	23	27	20	29	21	17
24	Diseases of the heart .....	17619	1810	1671	1708	1473	1491	1338	1289	1322	1172	1363	1356	1626
25	Other diseases of the circulatory system .....	1492	148	121	134	145	117	120	119	123	116	118	120	111
26	Bronchitis .....	120	11	13	8	10	9	9	7	13	9	8	13	10

27	Pneumonia and bronchopneumonia .....	1278	177	148	166	105	103	79	69	89	61	71	94	116
28	Other diseases of the respiratory system .....	333	29	25	25	25	35	31	26	19	26	28	35	29
29	Diarrhea and enteritis .....	88	8	9	4	.....	8	7	7	11	8	10	5	11
30	Appendicitis .....	142	11	5	8	13	15	8	20	19	14	10	10	9
31	Diseases of the liver and biliary passages .....	932	79	69	89	94	77	80	69	82	64	72	76	81
32	Other diseases of the digestive system .....	881	76	80	75	67	73	81	73	78	65	76	65	72
33	Nephritis .....	2545	269	265	230	215	228	199	170	169	197	201	188	214
34	Other diseases of the urinary and genital systems .....	402	35	32	29	46	33	34	30	34	31	35	29	34
35	Puerperal infection .....	18	3	1	.....	.....	.....	3	2	3	3	1	1	1
36	Other diseases of pregnancy, childbirth, and the puerperium .....	58	3	4	7	7	6	3	3	2	5	7	4	7
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	66	11	5	3	2	10	6	2	4	4	5	5	9
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	2130	183	169	168	167	197	183	170	189	145	200	192	167
39	Senility, old age .....	171	14	21	15	15	14	14	9	10	18	12	17	12
40	Suicide .....	589	50	41	52	53	55	60	49	43	45	52	43	46
41	Homicide .....	121	11	3	12	7	14	9	6	13	16	9	10	11
42	Automobile accidents (all motor-driven road vehicles) .....	601	33	34	45	34	45	59	51	54	59	53	69	65
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) ..	1762	173	145	152	143	172	137	130	165	119	148	118	160
44	Causes of death ill-defined, unknown, or unspecified .....	83	6	7	5	6	5	6	13	10	7	7	5	6







17	Chronic rheumatism and gout—																													
	Total	57																												
	Males—White	15																												
	Males—Colored	1																												
18	Diabetes Mellitus—																													
	Total	1560	3	1	4	2	1	3	4	4	12	14	43	99	186	282	317	267	203	92	23	4								
	Males—White	482	1	1	2			1	1	1	5	8	18	39	54	89	90	77	55	39	12									
	Males—Colored	26																												
19	Chronic or acute alcoholism—																													
	Total	59																												
	Males—White	38																												
	Males—Colored	15																												
20	Avitaminoses, other general diseases, diseases of the blood and chronic poisonings—																													
	Total	527	32	16	12	8	5	73	20	8	15	16	15	22	13	15	24	36	72	55	55	41	32	9	4	2				
	Males—White	256	21	12	8	2	2	45	12		9	6	6	9	4	6	10	20	34	30	29	15	19	2						
	Males—Colored	14	1																											
21	Meningitis (Nonmeningococcal) and diseases of the spinal cord—																													
	Total	124	9	4	2	2	2	19	1	2	4	3	3	2	4	6	3	11	10	16	9	18	11	2						
	Males—White	63	4	2	1	1	1	9	1	1	3	2	1		1	1	1	8	4	10	3	10	6	2						
	Males—Colored	10	2																											
22	Intracranial lesions of vascular origin—																													
	Total	4095	8	2			1	11	2	4	4	6	8	27	31	86	172	261	367	447	572	663	641	461	240	92				
	Males—White	1745	2	1			1	4			2	3	3	3	17	9	35	71	105	170	208	243	304	260	173	99	36			
	Males—Colored	128																												
23	Other diseases of the nervous system and sense organs—																													
	Total	290	9	9	2	4	2	26	11	4	7	17	13	20	18	11	23	20	29	22	22	25	13	7	2					
	Males—White	146	2	4	1	1			8	5	2	6	10	7	7	6	13	8	18	12	11	11	7	2						
	Males—Colored	12	1																											
	Total	129	5	5	1	2	1	14	5	2	1	5	5	10	8	4	8	12	10	8	11	13	6	5	2					
	Males—White	129																												
	Males—Colored	9	1																											









TABLE 18—DEATHS (exclusive of stillbirths) BY CAUSES, BY DAYS, WEEKS AND MONTHS OF THE FIRST YEAR OF LIFE IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	AGE UNDER 1 YEAR, IN COMPLETED DAYS, WEEKS AND MONTHS														
		Under 1 Year	DAYS				WEEKS				MONTHS					
			Under 1	One	Two	3 to 6	Under 1	One	Two	Three	Under 1	One	Two	3 to 5	6 to 9	10 to 11
	ALL CAUSES .....	2589	953	293	184	270	1700	145	57	49	1961	144	103	198	117	66
1	Typhoid and paratyphoid fevers .....															
2	Plague .....															
3	Scarlet fever .....															
4	Whooping cough .....	6											2	3		1
5	Diphtheria .....															
6	Tuberculosis of the respiratory system .....															
7	All other forms of tuberculosis .....															
8	Malaria .....															
9	Syphilis .....	6	4			1	5				5	1				
10	Influenza .....	5													2	3
11	Smallpox .....															
12	Measles .....	2													2	
13	Typhus fever .....															
14	Other infectious or parasitic diseases .....	8				1	1		1	1	3	1			3	1
15	Cancer and other malignant tumors .....	9		1			2				2	1			3	3
16	Nonmalignant tumors or tumors of unspecified nature .....															
17	Chronic rheumatism and gout .....															
18	Diabetes mellitus .....															
19	Chronic or acute alcoholism .....															
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	32	2		1	1	4	2		1	8	5	1	9	8	1
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	9						1			1	1		1	1	5
22	Intracranial lesions of vascular origin .....	8			1		1	1			2	1	1	2		2
23	Other diseases of the nervous system and sense organs .....	9		1		3	4				4			3	1	1
24	Diseases of the heart .....	4	2				2				2	1				
25	Other diseases of the circulatory system .....	1										1				

26	Bronchitis .....	10												1	3	2	4
27	Pneumonia and bronchopneumonia .....	253	7	11	9	8	35	7	9	10	65	35	33	1	70	31	19
28	Other diseases of the respiratory system .....	6	2				2				2	2	1				
29	Diarrhea and enteritis .....	38				1	1	3	3	1	10	7	8		6	4	3
30	Appendicitis .....																
31	Diseases of the liver and biliary passages .....	2												1		1	
32	Other diseases of the digestive system .....	13	1		1		2				2	1	3		2	4	1
33	Nephritis .....	1						1			1						
34	Other diseases of the urinary and genital systems .....	2													1		1
35	Puerperal infection .....																
36	Other diseases of pregnancy, childbirth, and the puerperium .....																
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....							2							2		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	2070	923	280	172	252	1627	126	42	34	1832	67	38		74	41	18
	Congenital malformations (stillbirths not included) .....	497	95	24	35	58	212	40	27	20	301	50	31		63	35	17
	Congenital debility (no other cause stated) .....	14	3	1			4				4	2	1		6	1	
	Premature birth (no other cause stated) .....	1077	611	168	91	107	977	59	10	9	1056	11	3		4	2	1
	Injury at birth .....	198	91	39	16	34	190	8	3	2	193	1	2		2	2	
	Other diseases peculiar to the first year of life ..	284	123	48	30	53	254	19	2	3	278	3	1		1	1	
39	Senility, old age .....																
40	Suicide .....																
41	Homicide .....	9	7				7				7				1	1	
42	Automobile accidents (all motor-driven road vehicles) .....																
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) ..	72	2			1	3	1	2	2	8	18	14		18	11	3
44	Causes of death ill-defined, unknown, or unspecified .....	10	3			1	4	1			5	1	1		1	2	

TABLE 19—DEATHS (exclusive of stillbirths) UNDER ONE YEAR OF AGE, BY CAUSES AND MONTHS OF DEATHS IN NEW JERSEY—1948

Abridged International List Number	CAUSE OF DEATH	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
	ALL CAUSES .....	2589	242	208	216	196	239	204	193	231	172	235	233	220
1	Typhoid and paratyphoid fevers .....													
2	Plague .....													
3	Scarlet fever .....													
4	Whooping cough .....	6	2			1	1			1		1		
5	Diphtheria .....													
6	Tuberculosis of the respiratory system .....													
7	All other forms of tuberculosis .....													
8	Malaria .....													
9	Syphilis .....	6						1		3			2	
10	Influenza .....	5	2	2		1								
11	Smallpox .....													
12	Measles .....	2		1			1							
13	Typhus fever .....													
14	Other infectious or parasitic diseases .....	8	1	1	1							4	1	
15	Cancer and other malignant tumors .....	9		1	1	1	1		2	2				1
16	Nonmalignant tumors or tumors of unspecified nature .....													
17	Chronic rheumatism and gout .....													
18	Diabetes mellitus .....													
19	Chronic or acute alcoholism .....													
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....													
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	32	2	4	2	5	5	3		4		1	3	3
22	Intracranial lesions of vascular origin .....	9			1		1		1	1		1	1	3
23	Other diseases of the nervous system and sense organs .....	8		1			1		1	1	1	2	1	1
24	Diseases of the heart .....	9	1		2		1		1	2		1		1
25	Other diseases of the circulatory system .....	4						1			1		1	1
		1								1				



TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	State Total	Atlantic County	Atlantic City	Hammonton	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
1. Typhoid fever .....	7											
2. Paratyphoid fever .....												
3. Plague .....												
4. Cholera .....												
5. Undulant fever (brucellosis) .....												
6. Cerebrospinal (meningococcus) meningitis .....	22	2	2									
7. Anthrax (infection by Bacillus anthracis) .....												
8. Scarlet fever .....	2	1										
9. Whooping cough .....	6											
10. Diphtheria .....	4											
11. Erysipelas .....	4											
12. Tetanus .....	8					1						
13. Tuberculosis of the respiratory system .....	1298	40	31		5	86	3	5	4	4		4
14. Tuberculosis of the meninges and central nervous system .....	27					5						
15. Tuberculosis of the intestines and peritoneum .....	9											
16. Tuberculosis of the vertebral column .....	10					4						
17. Tuberculosis of the bones and joints .....	2											
18. Tuberculosis of the skin and subcutaneous cellular tissue .....	1											
19. Tuberculosis of the lymphatic system .....	6					1			1			
20. Tuberculosis of the genito-urinary system .....	1											
21. Tuberculosis of other organs .....	34	1	1			2			1			
22. Disseminated tuberculosis .....												
23. Leprosy .....	8					1				1		
24. Septicemia and purulent infection (non-puerperal) .....	7											
25. Gonococcus infection .....	2											
26. Other diseases due to bacteria (except dysentery) .....	1											
27. Dysentery .....	282	18	14		1	20			4			1
28. Malaria .....	14					3						
29. Other diseases due to parasitic protozoa .....	40	5	3		1	5						
30. Syphilis .....	17	1		1		2						
31. Relapsing fever .....	44	5	2		1	7			1			1
32. Other diseases due to spirochetes .....	16											
33. Influenza .....	2											
34. Smallpox .....												
35. Measles .....												
36. Acute poliomyelitis and acute poliomyelitis .....	44	5	2		1	7			1			1
37. Acute infectious encephalitis (lethargic) .....	16											
38. Other diseases due to filtrable viruses .....	2											
39. Typhus fever and typhus-like diseases (due to Rickettsia) .....												
40. Ankylostomiasis .....												
41. Hydatid disease .....	1											
42. Other diseases caused by helminths .....	12	1	1			2		1				
43. Mycoses .....	100	5	2			7		1				
44. Other infectious and parasitic (communicable) diseases .....	213	8	3		2	35	1	3	1	4		1
45. Cancer of the buccal cavity and pharynx ..	3664	117	69	8	7	358	7	11	24	6	11	17
46. Cancer of the digestive organs and peritoneum .....	848	16	9		2	78	3	1	3	1	1	4
47. Cancer of the respiratory system .....	542	34	17		4	44		1	1	2		1
48. Cancer of the uterus .....	236	4	2			27	2	1				1
49. Cancer of other female genital organs .....	798	19	8	3	1	82	3	1	4	2	1	2
50. Cancer of the breast .....	419	18	7		2	40		4	1	1	1	2
51. Cancer of the male genital organs .....												
52. Cancer of the urinary organs (male and female) .....	411	7	3		2	47	2	2	1			1
53. Cancer of the skin (except vulva and scrotum) .....	99	3	2			8	1					2



TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	Essex County	Belleville	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
1. Typhoid fever .....	2								1		1			1
2. Paratyphoid fever .....														
3. Plague .....														
4. Cholera .....														
5. Undulant fever (brucellosis) .....														
6. Cerebrospinal (meningococcus) meningitis .....	2								2					
7. Anthrax (infection by Bacillus anthracis) .....														
8. Scarlet fever .....														
9. Whooping cough .....														1
10. Diphtheria .....	1								1					
11. Erysipelas .....	1								1					
12. Tetanus .....	1								1					
13. Tuberculosis of the respiratory system .....	348	6	4	25	9	5	1	6	259	3	16	4	4	13
14. Tuberculosis of the meninges and central nervous system .....	6			1	1	1		1	2					1
15. Tuberculosis of the intestines and peritoneum .....	4								4					
16. Tuberculosis of the vertebral column .....														
17. Tuberculosis of the bones and joints .....														
18. Tuberculosis of the skin and subcutaneous cellular tissue .....														
19. Tuberculosis of the lymphatic system .....	3	1		1	1									
20. Tuberculosis of the genito-urinary system .....	1								1					
21. Tuberculosis of other organs .....	16			1					12	1	1		1	
22. Disseminated tuberculosis .....														
23. Leprosy .....														
24. Septicemia and purulent infection (non-puerperal) .....	2								1				1	
25. Gonococcus infection .....	5								5					
26. Other diseases due to bacteria (except dysentery) .....														
27. Dysentery .....														
28. Malaria .....														
29. Other diseases due to parasitic protozoa .....														
30. Syphilis .....	57			5	2		1		37		7	1	1	6
31. Relapsing fever .....														
32. Other diseases due to spirochetes .....	1	1												
33. Influenza .....	5								3					1
34. Smallpox .....														
35. Measles .....	3							1	1					
36. Acute poliomyelitis and acute polio-encephalitis .....	7	1	1	1			1		2				1	4
37. Acute infectious encephalitis (lethargic) .....	3								1	2				1
38. Other diseases due to filtrable viruses .....														
39. Typhus fever and typhus-like diseases (due to Rickettsia) .....														
40. Ankylostomiasis .....														
41. Hydatid disease .....														
42. Other diseases caused by helminths .....														
43. Mycoses .....	2								2					
44. Other infectious and parasitic (communicable) diseases .....	16			1	1		1	1	10				2	3
45. Cancer of the buccal cavity and pharynx .....	37		1	5	5		1	3	16		2			2
46. Cancer of the digestive organs and peritoneum .....	713	20	36	76	51	11	12	40	373	8	28	14	14	73
47. Cancer of the respiratory system .....	193	8	11	16	10	4	1	11	107	2	6	4	5	8
48. Cancer of the uterus .....	108	1	5	13	6	2		2	60	3	7	1	2	15
49. Cancer of other female genital organs .....	52	2		9	3	2		4	22	1	3	2	3	3
50. Cancer of the breast .....	182	3	14	34	11	4	2	11	75	5	7	3	7	13
51. Cancer of the male genital organs .....	69	1	7	8	2	3	2	9	30	1	1		2	8
52. Cancer of the urinary organs (male and female) .....	83	1	3	11	3	1	2	6	44	3	1	1	1	7
53. Cancer of the skin (except vulva and scrotum) .....	13		1	1	1			3	3		1		1	3

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948

Woodbury	Hudson County	Bayonne	Guttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.	
1	1				1									1	1												
4	1				1	1				1			1	2			2	1	1								
1						1	1										1										
1						1								1			1										
1						1												1									
250	25	3	7	35	136	10	6	1	15	3	8	6	83	6	3	65	43	1	1	7	8	1	2	3	3		
5					5									3	1	2											
2							1			1																	
1		1												2			2										
6		1			3					1	1			1			1										
1						1	1							1			1										
1						1																					
38				4	23		3	1	5		2			13	2	1	7	11	1	1	4	1		1			
2						2												1				1					
2						2								1	1		1	1									
1						1								1	1												
1						1																					
1						1																					
1						1																					
1						1																					
1						1																					
12	2				1	5	2	1					4	5	3		2	4		2				1			
26	5				3	10	1	2		3	1		1	12			9	12	1		4	1		1	1	3	
7	588	74	5	10	51	255	37	36	8	63	14	35	31	153	34	6	92	171	7	5	29	37	3	5	13	28	
1	146	20	1	3	14	79	5	4	2	8	1	9	10	37	5	3	23	49	4	3	12	8		3	1	8	
1	78	4	1	2	6	38	5	6		9	3	4	5	20	3	1	14	22		1	5	1	2	2	3	2	
2	27	3			2	14	2	2		2		2	4	12	1		8	13				5		1		1	
2	109	10		3	6	58	10	3	1	7	3	8	9	31	4	3	20	44	2	4	6	7	2	1	2	9	
54	4	1	3	3	27	5	2	1	6		2	2	8	25	4	4	13	20	3	3	5					1	
1	56	4		1	6	26	2	5	1	8		3	3	17	4	1	10	18			1	3	1	1			
1	15				11	1	1			1		1	2	5			5	3					1				

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County	Clifton
1. Typhoid fever .....												
2. Paratyphoid fever .....												
3. Plague .....												
4. Cholera .....												
5. Undulant fever (brucellosis) .....												
6. Cerebrospinal (meningococcus) meningitis..	2		1									
7. Anthrax (infection by Bacillus anthracis)..												
8. Scarlet fever .....												
9. Whooping cough .....	2											
10. Diphtheria .....	1											
11. Erysipelas .....										1		
12. Tetanus .....	1	1										
13. Tuberculosis of the respiratory system ....	55	10	4	5	3	34	6	1	4	12	84	7
14. Tuberculosis of the meninges and central nervous system .....	1	1									2	1
15. Tuberculosis of the intestines and peritoneum .....												
16. Tuberculosis of the vertebral column .....	2			1	1							
17. Tuberculosis of the bones and joints .....											1	
18. Tuberculosis of the skin and subcutaneous cellular tissue .....												
19. Tuberculosis of the lymphatic system .....												
20. Tuberculosis of the genito-urinary system..											1	
21. Tuberculosis of other organs .....												
22. Disseminated tuberculosis .....	1				1	1				2		
23. Leprosy .....												
24. Septicemia and purulent infection (non-puerperal) .....											1	
25. Gonococcus infection .....												
26. Other diseases due to bacteria (except dysentery) .....												
27. Dysentery .....											1	
28. Malaria .....												
29. Other diseases due to parasitic protozoa ..												
30. Syphilis .....	15	3	1	3	1	11	2		4	4	21	2
31. Relapsing fever .....												
32. Other diseases due to spirochetes .....	3		1									
33. Influenza .....	3				1	2			1	1	3	1
34. Smallpox .....												
35. Measles .....						2	1			1	3	
36. Acute poliomyelitis and acute polio-encephalitis .....						1						
37. Acute infectious encephalitis (lethargic) ..						1						
38. Other diseases due to filtrable viruses .....						1					3	
39. Typhus fever and typhus-like diseases (due to Rickettsia) .....												
40. Ankylostomiasis .....												
41. Hydatid disease .....												
42. Other diseases caused by helminths .....	1											
43. Mycoses .....										1		
44. Other infectious and parasitic (communicable) diseases .....	5	1	1		1	4		1	2	1	8	
45. Cancer of the buccal cavity and pharynx ..	6	2	1			11			2	1	16	3
46. Cancer of the digestive organs and peritoneum .....	168	20	14	14	10	103	11	4	9	38	280	44
47. Cancer of the respiratory system .....	34	8	2	2	3	20		1	4	10	72	9
48. Cancer of the uterus .....	27	1	3	3	2	12	2		3	7	29	3
49. Cancer of other female genital organs ....	19	1	3	2	2	6	1		1	2	19	4
50. Cancer of the breast .....	44	5	4	3	2	38		1	9	6	37	1
51. Cancer of the male genital organs .....	15	2	2	1	1	8	2			15	31	7
52. Cancer of the urinary organs (male and female) .....	26	2	1	5	1	16	2		4	2	26	3
53. Cancer of the skin (except vulva and scrotum) .....	6			3	1	2				2	7	2

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside TWP.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg
1	1	3			6		1		1	12		2	1	1	1	2		1	1	1	1	1	
5	5	3	1		4		1		13	1	3	1	2	1	2	1						2	1
10	50	132	36	11	66	7	15	7	34	280	5	95	11	21	39	16	15	8	12	32	11	46	12
5	15	33	8	1	10		1	3	3	68	5	15	2	8	10	3	3	4	3	7	5	10	3
	4	20	9	1	2				6	45	2	13	1	2	4	5	1	3	3	5	2	5	1
	2	11	1		4				5	11		3	1		3		1			2		4	2
2	8	21	6	2	16	1	3	1	6	63	4	13	1	1	13	4	4	1	3	8	3	11	2
1	5	10	6	1	7	1	2		2	31	2	13	1	1	3	2		1	2	2	3	7	1
1	8	8	5	1	7		3	1	1	43	2	12	2	3	5	2	2		2	3	5	6	3
1	1	1	1		1				1	5		1			2				1	1		2	1











COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948—Continued

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Round Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg	
...	3	4	1	1	1	...	...	...	2	14	1	3	...	...	...	1	1	...	3	1	2	1	...	
...	3	12	4	4	4	...	1	1	2	22	...	15	2	3	5	2	1	2	4	1	3	6	3	
...	1	...	3	3	3	...	...	1	...	9	...	2	...	...	...	...	...	...	1	1	1	1	1	
...	1	...	1	1	1	...	...	...	...	3	...	2	1	...	...	...	...	1	...	1	...	...	...	
...	1	3	...	...	2	...	...	...	...	2	...	1	...	1	...	...	...	...	...	...	...	1	1	
...	6	28	62	20	8	32	2	1	11	9	109	2	45	1	6	16	6	5	1	6	8	7	26	11
...	...	2	4	2	...	...	...	...	1	7	...	6	...	...	1	...	...	...	...	...	...	...	...	...
...	...	1	...	1	1	...	...	1	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...
...	1	5	2	1	7	1	...	...	1	24	1	5	1	1	1	3	1	...	3	3	1	1	1	1
...	1	1	1	...	...	...	...	...	...	1	...	1	...	1	1	...	...	...	3	3	...	5	1	1
...	...	2	6	...	2	...	1	...	...	2	3	...	1	...	...	1	...	...	...	...	...	1	...	...
...	...	...	...	...	2	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	1	1
...	1	...	...	...	...	...	...	...	1	3	...	2	...	1	...	...	...	...	...	...	...	...	...	...
...	2	1	1	2	2	6	1	1	7	7	1	...	...	1	1	...	...	...	1	1	2	2	...	...
...	7	79	172	56	11	84	6	13	18	47	310	10	107	13	15	44	21	13	5	20	18	16	59	20
...	...	2	...	...	3	1	...	...	...	3	1	...	...	...	...	1	...	...	...	...	...	1	...	...
...	...	3	4	1	1	...	...	...	1	13	...	4	...	2	2	1	...	1	...	1	1	...	...	...
...	...	...	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...
...	...	2	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	1	...	...	...	...	...
...	3	5	21	11	2	13	1	2	...	4	72	4	21	4	5	8	4	2	...	8	5	7	24	18
...	31	91	301	79	14	141	7	21	21	62	633	26	192	28	41	84	45	14	20	39	46	36	156	55
...	14	72	209	58	8	79	8	12	14	51	463	27	180	15	15	41	34	18	12	25	44	24	75	23
...	...	11	25	11	4	23	4	2	1	5	96	5	46	6	4	5	7	5	1	2	5	4	12	4
...	...	1	2	...	1	...	...	...	1	10	...	3	1	...	3	...	...	...	1	...	...	...	...	...
...	7	16	96	14	3	5	1	1	1	15	73	1	24	3	4	9	3	...	4	6	7	5	18	6
...	1	1	...	...	...	...	...	...	...	1	5	...	...	...	...	...	...	...	1	...	4	...	...	...
...	1	2	2	2	2	1	...	...	1	4	...	2	...	...	...	1	1	...	...	...	...	2	1	1
...	5	2	1	...	...	...	...	...	1	6	...	2	...	...	...	1	1	2	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE)

	State Total	Atlantic County	Atlantic City	Hammonon	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
105. Diseases of the larynx .....	3	1										
106. Bronchitis .....	120	1	1									
107. Bronchopneumonia (including capillary bronchitis) .....	728	32	28		2	70	3	2	2	2		1
108. Lobar pneumonia .....	480	25	17	1	12	40	2	1	4			2
109. Pneumonia (unspecified) .....	70	2	2			7						2
110. Pleurisy (not specified as tuberculous) .....	25	1	1			12						1
111. Hemorrhagic infarction, thrombosis, edema and chronic congestion of the lungs .....	136	3	2		1	8					1	1
112. Asthma .....	86	4	4			8	1		1	1	1	1
113. Pulmonary emphysema .....	10					1						
114. Other diseases of the respiratory system (except tuberculosis) .....	69	2	1			8				1		1
115. Diseases of the buccal cavity, pharynx, tonsils and adnexa .....	26	1				4		1	1	1		
116. Diseases of the esophagus .....	11	1	1									
117. Ulcer of stomach or duodenum .....	352	15	5		2	28	2	3	1			3
118. Other diseases of the stomach (except cancer) .....	21	3	2		1							
119. Diarrhea, enteritis and ulceration of the intestines (under 2 years of age) .....	42	3	3			2						
120. Diarrhea, enteritis and ulceration of the intestines (2 years of age and over) .....	46	3	2			4			1			1
121. Appendicitis .....	142	3	1	1		12	1		2			
122. Hernia and intestinal obstruction .....	338	16	12		1	36		2	4	1		3
123. Other diseases of the intestines .....	64	1			1	10			1		2	1
124. Cirrhosis of the liver .....	660	24	12	1	5	63	2	3	2		1	5
125. Other diseases of the liver .....	53	3	3			5						1
126. Biliary calculi .....	165	6	5			14	2	1				2
127. Other diseases of the gallbladder and biliary ducts .....	54	3	3			8	1	1	1	1		1
128. Diseases of the pancreas (except diabetes mellitus) .....	55	2		2		6						
129. Peritonitis (cause not stated) .....	14											
130. Acute nephritis .....	54	4	3			5						
131. Chronic nephritis .....	2421	190	102	8	24	171	3	4	5	3	3	8
132. Nephritis unspecified (10 years of age and over) .....	70	6	3	1	1	5						
133. Other diseases of the kidneys and ureters .....	97	5	3			7						
134. Calculi of the urinary passages .....	52	1	1			5						2
135. Diseases of the urinary bladder .....	17					2						
136. Diseases of the urethra (except calculus) .....	3					1						
137. Diseases of the prostate .....	200	9	4		1	23	1				1	2
138. Diseases of other male genital organs (not specified as venereal) .....	2											
139. Diseases of the female genital organs .....	31					4						
140. Abortion with mention of infection .....	5					1						1
141. Abortion without mention of infection .....	5					1						
142. Ectopic gestation .....	5					1					1	
143. Hemorrhage of pregnancy (death before delivery) .....	1											
144. Toxemias of pregnancy (death before delivery) .....	5											
145. Other diseases and accidents of pregnancy (death before delivery) .....	2											
146. Hemorrhage of childbirth and the puerperium .....	12											
147. Infection during childbirth and the puerperium .....	13					3				1		
148. Puerperal toxemias (excluding death before delivery) .....	19					2						
149. Other accidents and specified conditions of childbirth .....	6					2			2			

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948—Continued

Hackensack	Lodi	Lyndhurst Twp.	North Arlington	Ridgefield Park	Ridgewood	Rutherford	Teaneck Twp.	Wallington	Burlington County	Burlington	Camden County	Audubon	Camden	Collingswood	Gloucester City	Haddonfield	Pennsauken Twp.	Cape May County	Cumberland County	Bridgeton	Millville	Vineland
12	1			1			1		2		14		4		1		1	2	4	2		1
4	2			2	1	1	5		17	1	38	1	18		1	2	3	7	17	5	6	1
5	2	2	3	2	1		1		8	4	43	1	29	2	1	1	4	7	5	2		1
5											8	1	4	1				2	2			
									4		12		1				1	2	2			
	1			1					3		8		6				1	1				
					1		1		4		4		1	1	2			1	1		1	
									1		1		1									
							1	1	3		2		2					1	3		1	
									1		4		2			1						
2			1	1	1	1	4		7		25	1	12	2	1			1	1	3	2	
			1								4		4						1	1		
									1		3		1									
6	2					2	1		1		11	1	4					2	6	2	2	1
1	2		1		1				8	1	22		12	1				1	8	2	1	
9		2	1	1	1	1	4	3	19	1	26		15	2	2			1	1	1	1	
					1				1		7		5	1				1	1		1	
	1				1		2	1	5		18		8	1	2	1		2	1		1	1
							1		2		6		1	1		1						
					1				1		3						1	1	1	1		
								1			1		2	1					1			
14	9	5	7	2	5	9	10	3	70	13	201	7	95	7	15	7	19	30	82	27	17	7
				1	1				2	1	11	1	5	1			2	2	5	1	3	
1	1			1			1		2	1	6		2				1	1				
2									1		1			1								
1		3		1		1			3		7		3			2	1	1	5	1		
											5		4						3		3	
											1		1									
											1				1							
											1											
											1		1									
																				1	1	

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE)

	Essex County	Bellville	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
105. Diseases of the larynx .....	22		1		3	1	1	3	11					1
106. Bronchitis .....														
107. Bronchopneumonia (including capillary bronchitis) .....	110	1	3	9	4	1		5	59	7	10	2	5	11
108. Lobar pneumonia .....	78		3	6	4			5	47	2	3			14
109. Pneumonia (unspecified) .....	15	1	1	4					8	1				2
110. Pleurisy (not specified as tuberculous) .....	8		1		2				4					1
111. Hemorrhagic infarction, thrombosis, edema and chronic congestion of the lungs .....	27	1	2	4				2	13		2	1	1	3
112. Asthma .....	16	1			1		1	2	10					
113. Pulmonary emphysema .....	2			1					1					
114. Other diseases of the respiratory system (except tuberculosis) .....	13	3		1	1			1	6	1				
115. Diseases of the buccal cavity, pharynx, tonsils and adnexa .....	5					1			2					1
116. Diseases of the esophagus .....	2				1							1		
117. Ulcer of stomach or duodenum .....	68	3	5	10	3	1	1	3	33	1	4		2	6
118. Other diseases of the stomach (except cancer) .....	6		1			1			3			1		
119. Diarrhea, enteritis and ulceration of the intestines (under 2 years of age) .....	5	1		1					3					1
120. Diarrhea, enteritis and ulceration of the intestines (2 years of age and over) .....	13			1	1			1	9		1			3
121. Appendicitis .....	27	1		1		2		3	17		1	1	1	7
122. Hernia and intestinal obstruction .....	68	1	3	5	5	1	2	3	54	2	2	4	1	4
123. Other diseases of the intestines .....	13	1	2	4			2		4					
124. Cirrhosis of the liver .....	139	5	6	8	7	4	1	3	86	3	8		1	9
125. Other diseases of the liver .....	6	1							3	1		1		1
126. Biliary calculi .....	26	1	2	2	2	2		1	12	1	2		1	2
127. Other diseases of the gallbladder and biliary ducts .....	8				1	1			3	1	1	1		1
128. Diseases of the pancreas (except diabetes mellitus) .....	12			2	1				8		1			1
129. Peritonitis (cause not stated) .....	1								1					
130. Acute nephritis .....	6			1					5					1
131. Chronic nephritis .....	518	25	42	48	28	21	6	27	235	11	24	13	12	86
132. Nephritis unspecified (10 years of age and over) .....	10			1					8			1		5
133. Other diseases of the kidneys and ureters .....	20	2			4			1	10	1	1			3
134. Calculi of the urinary passages .....	9								5	2	2			1
135. Diseases of the urinary bladder .....	1			1										
136. Diseases of the urethra (except calculus) .....	2							1	1					
137. Diseases of the prostate .....	36	1	1	2	3	3	1	2	19	1				3
138. Diseases of other male genital organs (not specified as venereal) .....	1		1											
139. Diseases of the female genital organs .....	6				1				4					1
140. Abortion with mention of infection .....	1								1					
141. Abortion without mention of infection .....														
142. Ectopic gestation .....														
143. Hemorrhage of pregnancy (death before delivery) .....														
144. Toxemias of pregnancy (death before delivery) .....	1													
145. Other diseases and accidents of pregnancy (death before delivery) .....														
146. Hemorrhage of childbirth and the puerperium .....	2								1		1			1
147. Infection during childbirth and the puerperium .....	5		1	2	1					1				
148. Puerperal toxemias (excluding death before delivery) .....	2			1					1					2
149. Other accidents and specified conditions of childbirth .....	3							1	2					







TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	State Total	Atlantic County	Atlantic City	Hammoncton	Pleasantville	Bergen County	Bergenfield	Cliffside Park	Englewood	Fairview	Fort Lee	Garfield
150. Other and unspecified conditions of child-birth and the puerperium	3											
151. Carbuncle and furuncle	3											
152. Phlegmon and acute abscess	3					1						
153. Other diseases of the skin and cellular tissue	32	2	2			1						
154. Osteomyelitis and perlostitis	7											
155. Other diseases of the bones (except tuberculosis)	11	1				3						
156. Diseases of the joints and other organs of movement	13					1						
157. Congenital malformations (stillbirths not included)	557	17	11		1	51			4	1	3	5
158. Congenital debility (cause not stated)	14											
159. Premature birth (cause not stated)	1077	22	12		2	106	3	1	6	1	1	9
160. Injury at birth	198	4	3			22		1	1	1	1	
161. Other diseases peculiar to the first year of life	284	7	5		1	18					1	4
162. Senility	171	5	3			1	14					
163. Suicide by poisoning	241	5	2	1				1	3			3
164. Suicide by other means	348	10	4		1	20		2	1	1		1
165. Infanticide (homicide of infants under 1 year of age)	9	1	1									
166. Homicide by firearms	45					2						
167. Homicide by cutting or piercing instruments	33	3	2			1						
168. Homicide by other means	34					1						
169. Railway accidents (except collisions with motor vehicles)	48	1	1			5						
170. Motor vehicle accidents	601	27	8	3		50	2	2	3	1	1	2
171. Street car and other road transport accidents	8					1						
172. Water transport accidents	26	1				1						
173. Air transport accidents	33					2			1			
174. Accidents in mines and quarries	3											
175. Agricultural and forestry accidents	4											
176. Other accidents involving machinery	21					1						
177. Food poisoning	2											
178. Accidental absorption of poisonous gas	124	9	8			7						
179. Acute accidental poisoning by solids or liquids	31					2		1				
180. Conflagration	96	5	2			3						
181. Accidental burns (except conflagration)	92	2				9	1					
182. Accidental mechanical suffocation	43					2						
183. Accidental drowning	161	9	2			21		2	3			
184. Accidental injury by firearms	21	1				2						1
185. Accidental injury by cutting or piercing instruments	2											
186-1. Accidental injury by fall	825	22	12		2	85	4	1	9	1	5	5
186-2. Accidental injury by crushing	11											
187. Cataclysm												
188. Injury by animals												
189. Hunger or thirst												
190. Excessive cold	9	1										
191. Excessive heat	41	1				2						
192. Lightning	2											
193. Accidents due to electric currents (except lightning)	22	1		1		2					1	
194. Poisoning by venomous animals												
195. Other accidents	134	4	3			13				1	1	2
196. Deaths of military personnel during operations of war												
197. Deaths of civilians due to operations of war												
198. Legal executions	3											
199. Sudden death												
200. Ill-defined and unknown causes	83	2	2			3						2
Totals	48107	1776	969	87	159	4329	122	145	235	97	101	219



TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	Essex County	Belleville	Bloomfield	East Orange	Irvington	Maplewood Twp.	Millburn Twp.	Montclair	Newark	Nutley	Orange	South Orange	West Orange	Gloucester County
150. Other and unspecified conditions of child-birth and the puerperium .....	1	1												
151. Carbuncle and furuncle .....														
152. Phlegmon and acute abscess .....														
153. Other diseases of the skin and cellular tissue .....	8		1					1	3	1		1		1
154. Osteomyelitis and periostitis .....	1								1					
155. Other diseases of the bones (except tuberculosis) .....	3				1	1								1
156. Diseases of the joints and other organs of movement .....	1		1											
157. Congenital malformations (stillbirths not included) .....	105	2	9	2	5	2	1	7	56	4	3	3	5	10
158. Congenital debility (cause not stated) .....	1								1					1
159. Premature birth (cause not stated) .....	239	4	10	24	3	2		7	159	4	11		5	15
160. Injury at birth .....	37		1	5		2		3	21	1		1		5
161. Other diseases peculiar to the first year of life .....	70	1	1	3	5	4	1		56	7	4	1	3	10
162. Senility .....	19		2	2	2	1		1	12					1
163. Suicide by poisoning .....	52		4	8	2	2	1		24	1	2	2	2	3
164. Suicide by other means .....	63	4	3	3	2	2		3	52	2	2		3	9
165. Infanticide (homicide of infants under 1 year of age) .....				1	1			1	12		1			3
166. Homicide by firearms .....	16								8		2			2
167. Homicide by cutting or piercing instruments .....	10								9					
168. Homicide by other means .....	9													
169. Railway accidents (except collisions with motor vehicles) .....	4	1							2			1		2
170. Motor vehicle accidents .....	87	2	5	7	8	4	2	2	42	3	4	1	4	23
171. Street car and other road transport accidents .....	3								2					
172. Water transport accidents .....	3		1						1			1		
173. Air transport accidents .....	1											1		
174. Accidents in mines and quarries .....														
175. Agricultural and forestry accidents .....	5					1			4					2
176. Other accidents involving machinery .....	2							2						
177. Food poisoning .....	16		1	2	1				10	1	1			2
178. Accidental absorption of poisonous gas .....														
179. Acute accidental poisoning by solids or liquids .....	8						1		6		1			
180. Conflagration .....	16		1					4	10					1
181. Accidental burns (except conflagration) .....	17			2				1	11		1		2	4
182. Accidental mechanical suffocation .....	14								13	1				1
183. Accidental drowning .....	28					1	1	2	24					3
184. Accidental injury by firearms .....	1						1							
185. Accidental injury by cutting or piercing instruments .....														
186-1. Accidental injury by fall .....	183	7	12	16	12	3	1	9	94	2	8	3	10	15
186-2. Accidental injury by crushing .....	3		1						2					
187. Cataclysm .....														
188. Injury by animals .....														
189. Hunger or thirst .....														
190. Excessive cold .....														1
191. Excessive heat .....	7				1				5		1			
192. Lightning .....														1
193. Accidents due to electric currents (except lightning) .....	2				1				1					
194. Poisoning by venomous animals .....														
195. Other accidents .....	35	2	1				2	4	19	1	2		1	
196. Deaths of military personnel during operations of war .....														
197. Deaths of civilians due to operations of war .....														
198. Legal executions .....	3								3					
199. Sudden death .....														
200. Ill-defined and unknown causes .....	11								7	1				2
Totals .....	9511	269	450	895	559	210	99	445	5105	207	455	168	246	944

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948—Continued

Woodbury	Hudson County	Bayonne	Cuttenberg	Harrison	Hoboken	Jersey City	Kearny	North Bergen Twp.	Secaucus	Union City	Weehawken Twp.	West New York	Hunterdon County	Mercer County	Hamilton Twp.	Princeton	Trenton	Middlesex County	Carteret	Highland Park	New Brunswick	Perth Amboy	Sayreville	South Amboy	South River	Woodbridge Twp.	
1				1																							
	5	1				2				2																	
	2				1	1																					
	4					3				1																	
1	74	6	1	2	2	44	7	2		3	3	4	10	29	5	2	19	25	2		5	8			2	2	
1	126	20		2	12	65	8	5	2	8	1	3	9	54	11	1	32	67	2		14	10	2	1		10	
1	26	2		1	3	13		2	1		1	3	2	4	1		2	8	3		1	2			1		
1	35	5		1	4	17	1	1		4		2	4	12	2		10	15			2	4	1	1	3	1	
	10				1	3	3			1		2	4	8	1	1	3	5		1		1					
	22			1	3	9	4			3		2	1	12		1	7	11			2	3				4	
2	47	2			4	20	3	4	2	7	4	1	5	14	3		16	23	1	1	4	4	1		1	5	
	1					1								2			1										
	2					2								2		1		3	1								
	3					1		1						1			1	3					2				
	2					1	1							3			2	3				1		1			
1	8	1		1		1	1	1	1	1		1						5	1	1		1					
3	66	7	2	4	6	29	1	5	2	5	2	3	8	40	4	1	23	31			4	4			3	5	
	1				1									1	1												
	9	1			3	3		1		1				2	2	2		1									
	2	1			1									2	2			1									
	3	1			1	1								1			1										
	20		1		6	10	3							2		2		11		1	2	2					
	4	2			1	1							1					1			1						
	4	1			1	1				2			1	9	4		5	16	1		7	1					
1	18	1		1	1	11		2		1		1	1	4	2		2	5		1	1			1			
	3				3													2									
1	16	2		2	2	9						1	1	7		1	3	9			2	2	1				
	2				1					1				2	2			4				1					1
	2				2																						
2	150	17	3	1	18	73	4	11	2	11	4	6	9	44	11	1	26	28	1	1	5	5	1	2	2	3	
	4				3							1						2							1		
														2	1												
	11				1	7	1				1	1		1	2			1		2	1						
	4					2	1			1				2				2	3			1	1				
	15	2		2		4	1	2		2		1		4			4	5				1				2	
	4					1			1	1		1		4			3	5				1					
97	7092	708	77	166	669	3397	391	390	74	639	176	392	501	2219	366	86	1387	2270	104	94	383	414	69	85	101	300	

TABLE 20—DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST, IN THE  
(COUNTY FIGURES INCLUDE

	Monmouth County	Asbury Park	Long Branch	Neptune Twp.	Red Bank	Morris County	Dover	Madison	Morristown	Ocean County	Passaic County	Clifton
150. Other and unspecified conditions of child-birth and the puerperium										1		
151. Carbuncle and furuncle												
152. Phlegmon and acute abscess												
153. Other diseases of the skin and cellular tissue						1					2	
154. Osteomyelitis and perostitis						2	2					
155. Other diseases of the bones (except tuberculosis)											1	
156. Diseases of the joints and other organs of movement											4	1
157. Congenital malformations (stillbirths not included)	34	4	2	4	1	19	2	2	1	3	41	9
158. Congenital debility (cause not stated)	1					4					1	
159. Premature birth (cause not stated)	55	11	4	2	3	47	6	3	5	7	70	8
160. Injury at birth	7		1		1	8		1		5	17	2
161. Other diseases peculiar to the first year of life	10	1	2		1	14	1		4	1	16	2
162. Senility	24	2	6	2		4			2	2	12	1
163. Suicide by poisoning	17	3	4		2	7	2	1	2	2	31	1
164. Suicide by other means	20	2	2	3	2	17			2	6	23	4
165. Infanticide (homicide of infants under 1 year of age)											2	
166. Homicide by firearms	4	1									2	
167. Homicide by cutting or piercing instruments											1	
168. Homicide by other means	3	1	1			1					3	
169. Railway accidents (except collisions with motor vehicles)	6	2		1	1	1				1	2	
170. Motor vehicle accidents	32	12	4	2		21		1	3	12	31	5
171. Street car and other road transport accidents	1											
172. Water transport accidents	2	1								1	2	
173. Air transport accidents	1					7		7		1		
174. Accidents in mines and quarries						1	1					
175. Agricultural and forestry accidents						2	1				2	
176. Other accidents involving machinery												
177. Food poisoning												
178. Accidental absorption of poisonous gas	10	4				4			1	3	10	2
179. Acute accidental poisoning by solids or liquids	4	1				2			1		3	
180. Conflagration	11			1	5	4		1			5	
181. Accidental burns (except conflagration)	6		1			1					4	
182. Accidental mechanical suffocation	2		1			2		1			2	1
183. Accidental drowning	7	1	1		1	5			1		5	1
184. Accidental injury by firearms	3	1								1	1	
185. Accidental injury by cutting or piercing instruments												
186-1. Accidental injury by fall	35	3	5	4	4	25	3	1	3	10	49	4
186-2. Accidental injury by crushing												
187. Cataclysm												
188. Injury by animals												
189. Hunger or thirst												
190. Excessive cold												
191. Excessive heat						1					2	
192. Lightning												
193. Accidents due to electric currents (except lightning)										1	1	
194. Poisoning by venomous animals												
195. Other accidents	4			1		10	1			3	10	
196. Deaths of military personnel during operations of war												
197. Deaths of civilians due to operations of war												
198. Legal executions												
199. Sudden death												
200. Ill-defined and unknown causes	12	3	1	1		1	1			1	3	
Totals	2482	277	260	192	193	1514	149	90	225	632	3817	439

COUNTIES OF NEW JERSEY AND SELECTED MUNICIPALITIES AND TOWNSHIPS  
PLACES WHICH FOLLOW): 1948—Continued

Hawthorne	Passaic	Paterson	Salem County	Salem City	Somerset County	Bound Brook	North Plainfield	Somerville	Sussex County	Union County	Cranford Twp.	Elizabeth	Hillside Twp.	Linden	Plainfield	Rahway	Roselle	Roselle Park	Summit	Union Twp.	Westfield	Warren County	Phillipsburg		
	1								1	4		1			2		1								
		1	1	1																					
	1									1									1						
3	7	15	5	1	5				7	38	1	13	3	1	4	5	1	4			2	1	12	5	
	1	1							1	1		1											1	1	
4	14	27	15	4	23	1	2	1	13	82	3	26	1	5	11	7	6	2	3	5	4	14	5		
	2	9	6	3	4				2	9		4			2	1									
2	4	5	3	1	9	2			3	15	1	4		2	1		1		1	3		1	1		
1	1	6	3	1	6	1		1	6	8		4	2		2							1	1		
	6	18	4	1	6	1		2	1	17	1	4			2	1			1		4	2	1		
1	6	9	4		11	1	1	1	6	20	1	4	1		1	2	1		4	4	1	7	1		
		2								2									1						
	1		3	1						3		1			1						1	1			
		1	2	1						5		1			2										
		3	1		1				1	1		1										1	1		
	1	1			3			1		5		2		1	1	1					1	2	3	18	7
2	4	12	12	4	13		1	2	11	36		10	2	3	5	2	5		1	2	3	18	7		
					1					2		1	1												
			4	4	2					1													2		
									1														1	1	
									1	1													1	1	
	2	4	2		3				1	17		5			4					2	1	2	1		
1	1	1								3		2	1												
	1	4	3	1	1		1			3		1								1	1				
		3			2				1	4		1			1								1		
		1			1					6		2			2	1	1								
1		2	3	1	1	1			1	12	1	6			1		1	1		1	1	4	1		
		1							1	2		1					1								
4	8	25	4	2	9	1	1	1	10	54	2	15	1	4	7	4	1	1	4	8	2	13	4		
									1																
					2	1		1		7		6													
					1	1				1												1			
		1								2		1			1										
	1	6	2	1						12	1	9				1				1		4	2		
									1	11		2		3		3	1					1	2	1	
140	589	1648	504	111	805	74	112	119	382	3409	128	1153	125	202	423	223	126	88	190	270	198	680	240		

TABLE 22—TABULATION OF DEATHS IN ATLANTIC COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	1776	817	688	173	148	61	72	11	7	14	30	41	57	85	296	457	449	230	27	....
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....	1		1														1			
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	40	14	7	16	3					3	4	2	1	2	8	5	3			
7	All other forms of tuberculosis .....	1			1											1					
8	Malaria .....																				
9	Syphilis .....	18	4	2	7	5						1		1	5	4	6	1			
10	Influenza .....	5	1	2	5											2	1		1		
11	Smallpox .....																				
12	Measles .....	1		1			1														
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	13	7	4	2			1		1	5					1	3	1	1		
15	Cancer and other malignant tumors .....	244	97	114	14	19				1	1	1	10	9	11	56	74	55	25	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	1	1													1					
17	Chronic rheumatism and gout .....	1	1									1									
18	Diabetes mellitus .....	56	19	33	1	3									1	2	8	20	18	6	1
19	Chronic or acute alcoholism .....	3	2	1											2		1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	22	9	10	1	9		1	2	1	1	1	1	2	2	2	5	3			1
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	3	1	1		1								2					1		
22	Intracranial lesions of vascular origin .....	156	63	62	11	20					1		2	1	4	3	29	42	50	24	

23	Other diseases of the nervous system and sense organs	14	5	8	1	1	2	1	1	1	1	1	4	1	4				
24	Diseases of the heart	625	322	212	45	46				1	5	7	14	29	98	190	166	97	18
25	Other diseases of the circulatory system	39	14	16	2	7							4	8	7	10	8	2	
26	Bronchitis	1	1												1				
27	Pneumonia and bronchopneumonia	59	20	11	17	11	7	7				3	4	4	11	9	15	4	
28	Other diseases of the respiratory system	11	4	5	2				1	1					2	3	1	4	
29	Diarrhea and enteritis	6	1	3	1	1	3	4				1							
30	Appendicitis	3	3												1	2			
31	Diseases of the liver and biliary passages	36	18	15	2	1						1		1	9	13	9	5	
32	Other diseases of the digestive system	39	23	11	2	3			1			1	3	1	9	10	9	5	
33	Nephritis	200	81	72	31	16		1				2	3	2	8	20	44	77	42
34	Other diseases of the urinary and genital systems	15	12	1	1	1			1	1					2	4	6	1	
35	Puerperal infection																		
36	Other diseases of pregnancy, childbirth, and the puerperium																		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	1	1		1					1						2		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	50	28	16	4	2	47	49	1										
39	Senility, old age	5	2	3														3	2
40	Suicide	15	10	2	2	1					1			5	2	2	2	1	
41	Homicide	4		2	2		1	1			1	1			1				
42	Automobile accidents (all motor-driven road vehicles)	27	22	3	1	1		1	2		1	3	1	3	1	4	5	6	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	57	30	18	6	3	2	5	1	3	4	2	2	2	4	11	7	10	5
44	Causes of death ill-defined, unknown, or unspecified	2	1	1														2	

Estimated Population, 145,302.

Total Resident Deaths, 1,776.

Rate per 1,000 Population, 12.2.

TABULATION OF DEATHS IN ATLANTIC CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown		
																					Male	Female
	ALL CAUSES .....	969	388	330	136	115	36	41	4	3	7	14	21	31	56	181	255	236	103	14	...	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	31	9	3	16	3					3	3	6	1	6	7	3	2				
7	All other forms of tuberculosis .....	1			1											1						
8	Malaria .....																					
9	Syphilis .....	14	3	1	7	3					1			1	4	3	5					
10	Influenza .....	3		1	2									1		1				1		
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	7	3	2	2					1		1	2				2	1				
15	Cancer and other malignant tumors .....	128	48	60	7	13								4	6	5	31	40	30	12		
16	Nonmalignant tumors or tumors of unspecified nature .....	1	1														1					
17	Chronic rheumatism and gout .....																					
18	Diabetes mellitus .....	25	8	14		3								1	1	3	7	10	2	1		
19	Chronic or acute alcoholism .....	2	1	1										1		1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	10	4	4	1	1			1					1		1	3	3		1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	2		1		1								2								
22	Intracranial lesions of vascular origin .....	81	22	32	10	17								2	2	12	26	28	11			

23	Other diseases of the nervous system and sense organs	9	3	5	1	1	2				1	4		2		
24	Diseases of the heart	325	153	105	34	33		1	3	3	7	20	61	97	78	45
25	Other diseases of the circulatory system	26	8	10	2	6						3	8	5	4	6
26	Bronchitis	1											1			
27	Pneumonia and bronchopneumonia	47	14	7	17	9	2	2	1	1	3	4	4	9	7	12
28	Other diseases of the respiratory system	8	3	3	2				1				1	2	1	3
29	Diarrhea and enteritis	5	1	2	1	1	3	3			1			1		
30	Appendicitis	1	1											1		
31	Diseases of the liver and biliary passages	23	9	11	2	1				1			7	8	7	
32	Other diseases of the digestive system	20	9	7	2	2		1			1	1	5	6	3	3
33	Nephritis	108	37	37	21	13			2	3		6	14	30	40	13
34	Other diseases of the urinary and genital systems	8	7			1							2	2	4	
35	Puerperal infection															
36	Other diseases of pregnancy, childbirth, and the puerperium															
37	Diseases of the skin, cellular tissue, bones, and organs of movement	2	1			1			1					1		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	31	16	10	3	2	28	30	1							
39	Senility, old age	3	1	2											2	1
40	Suicide	6	4		1	1					2	1		2	1	
41	Homicide	3		1	2	1	1		1	1						
42	Automobile accidents (all motor-driven road vehicles)	8	5	2		1						1	2	2	3	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	28	15	8	3	2	1	3	2	1	1	3	6	5	5	1
44	Causes of death ill-defined, unknown, or unspecified	2	1	1											2	

Estimated Population, 67,148.

Total Resident Deaths, 969.

Rate per 1,000 Population, 14.4.

TABULATION OF DEATHS IN BERGEN COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods															
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	4329	2273	1934	67	55	234	275	25	18	20	66	142	122	170	687	944	1114	650	96	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	86	57	24	2	3			1			7	17	4	9	16	18	11	3			
7	All other forms of tuberculosis .....	12	5	6	1			2	1		1	2	1	1	2	1	1					
8	Malaria .....				6	4						1		1	2	9	5	1	1			
9	Syphilis .....	20	7	3	1																	
10	Influenza .....	5	2	2				1	2							2	1					
11	Smallpox .....																					
12	Measles .....	2		2					1	1												
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	21	14	6	1			1	3	1	1	4	1	2	1	1	4	1	1			
15	Cancer and other malignant tumors .....	768	388	365	7	8	1	3		1	1	7	30	30	39	163	208	191	90	5		
16	Nonmalignant tumors or tumors of unspecified nature .....	18	6	11		1		1				1	3	3		6	1	3				
17	Chronic rheumatism and gout .....	6	1	5												1		4	1			
18	Diabetes mellitus .....	135	42	88	2	3							2	3	2	21	55	45	7			
19	Chronic or acute alcoholism .....	3	3														1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	50	20	29	1		3	5	2		1	2	3		3	18	7	7	2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	14	10	4			1	2		1	1					3	2	5				
22	Intracranial lesions of vascular origin .....	383	161	215	2	5		1			1		4	6	9	47	92	128	82	13		

23	Other diseases of the nervous system and sense organs .....	32	17	14	1	2	1	1	3	1	3	7	5	7	2	.....				
24	Diseases of the heart .....	1544	874	638	17	15	1	3	2	10	29	33	58	259	372	468	276	36		
25	Other diseases of the circulatory system .....	173	85	85	2	1	.....	.....	.....	.....	.....	1	2	1	14	23	53	62	17	
26	Bronchitis .....	13	9	3	1	.....	.....	.....	.....	.....	.....	1	1	.....	1	1	6	.....	.....	
27	Pneumonia and bronchopneumonia .....	117	54	57	4	2	27	31	1	1	.....	2	3	1	1	12	9	27	23	6
28	Other diseases of the respiratory system .....	27	18	8	.....	1	.....	1	.....	.....	2	.....	3	2	5	11	3	.....	.....	
29	Diarrhea and enteritis .....	6	2	4	.....	2	2	1	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....	
30	Appendicitis .....	12	5	6	.....	1	.....	1	1	2	.....	.....	.....	3	3	1	.....	.....	.....	
31	Diseases of the liver and biliary passages .....	90	46	44	.....	.....	.....	.....	1	.....	3	10	7	21	25	17	6	.....	.....	
32	Other diseases of the digestive system .....	84	55	27	1	1	.....	6	3	.....	2	1	4	7	13	21	18	9	.....	
33	Nephritis .....	181	82	91	6	2	.....	3	.....	1	1	1	8	5	6	27	33	50	40	6
34	Other diseases of the urinary and genital systems .....	42	31	11	.....	.....	.....	.....	2	2	2	.....	1	6	11	11	6	1	.....	
35	Puerperal infection .....	4	.....	4	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	
36	Other diseases of pregnancy, childbirth, and the puerperium .....	6	.....	5	.....	1	.....	.....	1	4	1	.....	.....	.....	.....	.....	.....	.....	.....	
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	6	2	4	.....	1	1	.....	.....	1	.....	.....	1	2	1	.....	.....	.....	.....	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	197	101	90	5	1	191	194	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	
39	Senility, old age .....	14	6	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7	6	.....	
40	Suicide .....	43	33	8	1	1	.....	.....	.....	1	6	5	5	8	8	8	2	.....	.....	
41	Homicide .....	4	3	1	.....	.....	.....	.....	.....	.....	3	.....	1	.....	.....	.....	.....	.....	.....	
42	Automobile accidents (all motor-driven road vehicles) .....	50	37	11	1	1	.....	2	5	2	1	6	4	2	4	8	8	8	.....	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	158	95	55	5	3	4	12	3	6	2	7	14	8	6	14	22	31	27	6
44	Causes of death ill-defined, unknown, or unspecified .....	5	2	1	.....	1	1	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	

Estimated Population, 511,811.

Total Resident Deaths, 4,329.

Rate per 1,000 Population, 8.5.

TABULATION OF DEATHS IN BURLINGTON COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods															
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	1190	619	478	52	41	73	82	5	3	4	24	40	37	47	159	264	291	198	36	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	26	13	7	5	1						2	4	3	3	4	6	2	2			
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....	12	7	1	4								1	1	2	4	2	1	1			
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	7	6	1			1	2	1													
15	Cancer and other malignant tumors .....	176	80	83	6	7	1	1					3	5	5	9	27	48	56	21	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	7	3	3	1												1	5	1			
17	Chronic rheumatism and gout .....	2	1	1																		
18	Diabetes mellitus .....	30	13	14	1	2							1			8	10	1	1	2		
19	Chronic or acute alcoholism .....	1	1													1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	10	7	2	1		1	1	2			2			2	3						
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	2	1		1										1		1					
22	Intracranial lesions of vascular origin .....	108	46	51	6	5								5		3	16	17	43	20	4	



TABULATION OF DEATHS IN CAMDEN COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods													Unknown	
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89		90 and Over
	ALL CAUSES .....	3001	1512	1224	136	129	108	203	15	15	16	71	91	117	151	483	662	723	304	60	....
1	Typhoid and paratyphoid fevers .....	1			1			1													
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....	1						1	1												
5	Diphtheria .....	1						1													
6	Tuberculosis of the respiratory system .....	83	42	22	6	13		1			5	10	12	11	9	16	10	8	1		
7	All other forms of tuberculosis .....	5	2	1	2						1	1	1				1	1			
8	Malaria .....																				
9	Syphilis .....	23	13	2	5	2							1	2	4	6	6	3			
10	Influenza .....	4	2	2			1	2									1	1			
11	Smallpox .....																				
12	Measles .....	1	1					1													
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	19	9	8	2		1	4	2	2	1	2	2		2	2	1		1		
15	Cancer and other malignant tumors .....	471	212	226	16	17	1	2		1		5	9	18	30	111	136	115	43	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	17	5	11		1		1		1				2	3		2	2			
17	Chronic rheumatism and gout .....	5		5													2	2	1	2	
18	Diabetes mellitus .....	92	26	60	3	3		1					1		5	22	36	20	6	1	
19	Chronic or acute alcoholism .....	2	2											1	1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	27	14	12		1	2	3	2	1	1	3	4		1	2	5	5			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	8	5	2		1	1	2			1			1		2		2			
22	Intracranial lesions of vascular origin .....	254	116	115	5	18				1			2		10	8	37	61	88	45	4

23	Other diseases of the nervous system and sense organs	19	7	10	1	1	2	1	1	4	3	1	2	2	1	3	293	173	33
24	Diseases of the heart	1063	588	409	41	25	1	1	1	7	25	26	56	174	271	293	173	33	
25	Other diseases of the circulatory system	80	42	34	2	2	1	1	2	1	1	1	2	9	12	21	30	4	
26	Bronchitis	14	8	6	1	1	2	1	1	1	1	1	2	2	3	2	1	1	
27	Pneumonia and bronchopneumonia	89	52	27	5	5	10	16	2	3	4	6	5	6	14	14	16	2	
28	Other diseases of the respiratory system	17	6	9	1	1	1	1	1	2	1	1	2	3	4	4	5	1	
29	Diarrhea and enteritis	7	3	4	1	3	3	1	1	1	1	1	1	1	1	1	1	1	
30	Appendicitis	11	7	2	2	1	1	1	1	2	2	1	1	3	2	1	1	1	
31	Diseases of the liver and biliary passages	57	31	25	1	1	1	1	1	2	1	5	4	7	18	16	3	1	
32	Other diseases of the digestive system	56	34	18	2	2	1	3	1	1	1	5	2	17	10	12	2	2	
33	Nephritis	215	93	83	14	25	1	1	1	6	4	6	5	31	43	74	43	2	
34	Other diseases of the urinary and genital systems	19	10	7	2	1	1	1	1	1	2	2	3	6	2	4	1	1	
35	Puerperal infection	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
36	Other diseases of pregnancy, childbirth, and the puerperium	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
37	Diseases of the skin, cellular tissue, bones, and organs of movement	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	140	76	47	11	6	138	140	1	1	1	1	1	1	1	1	1	1	
39	Senility, old age	14	5	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
40	Suicide	33	18	13	2	1	1	1	1	3	3	6	5	5	5	5	1	1	
41	Homicide	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
42	Automobile accidents (all motor-driven road vehicles)	35	19	13	2	1	2	3	3	6	3	1	6	1	7	2	2	2	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	98	50	38	9	1	4	9	3	7	9	8	4	6	13	18	14	4	
44	Causes of death ill-defined, unknown, or unspecified	10	9	1	2	2	1	1	1	2	1	1	4	1	1	1	1	1	

Estimated Population, 292,504.

Total Resident Deaths, 3,001.

Rate per 1,000 Population, 10.3.

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TABULATION OF DEATHS IN CAMDEN CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
																					Male	Female
	ALL CAUSES .....	1372	657	523	100	92	86	104	6	4	7	43	51	68	79	237	309	309	140	15	...	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	54	28	11	5	10		1			4	7	7	8	7	12	5	2	1			
7	All other forms of tuberculosis .....	3	1	2							1		1									
8	Malaria .....																					
9	Syphilis .....	13	7	1	3	2						1	1	3	5	3						
10	Influenza .....	2		2												1	1					
11	Smallpox .....																					
12	Measles .....	1	1					1														
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	12	6	3	1		1	3	1	1		2	1		2	1	1					
15	Cancer and other malignant tumors .....	201	85	93	12	11	1	1				3	3	11	15	52	58	42	16			
16	Nonmalignant tumors or tumors of unspecified nature .....	9	3	3		1							1	2		3	2	1				
17	Chronic rheumatism and gout .....	2		3													2					
18	Diabetes mellitus .....	47	9	35	1	2									3	14	19	7	4			
19	Chronic or acute alcoholism .....	2	2											1	1							
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	10	4	5		1		1	1		1	2	1			1	1	2				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	3	2			1					1					1		1				
22	Intracranial lesions of vascular origin .....	102	43	41	5	13					1				6	6	13	27	33	14		

23	Other diseases of the nervous system and sense organs	12	3	7	1	1	1	1	1	3	2	1	2	2	2		
24	Diseases of the heart	462	250	164	27	21	1	1	1	4	14	11	30	78	128	129	58
25	Other diseases of the circulatory system	29	16	10	2	1	1	1	1	1				6	4	8	8
26	Bronchitis	4	3	1										2			1
27	Pneumonia and bronchopneumonia	51	27	18	4	2	6	9		2	3	6	2	6	7	7	8
28	Other diseases of the respiratory system	11	4	6	1			1		2			1	3		2	2
29	Diarrhea and enteritis	5	3	2			3	3			1			1			
30	Appendicitis	4	1	1	2				1					2	1		
31	Diseases of the liver and biliary passages	29	15	13	1					1	1	4	1	3	9	8	1
32	Other diseases of the digestive system	26	14	8	2	2		1		1	1	3	1	10	4	5	1
33	Nephritis	102	40	32	13	17			1	3	4	1	1	11	25	37	18
34	Other diseases of the urinary and genital systems	9	3	5	1							2		1	1	2	3
35	Puerperal infection																
36	Other diseases of pregnancy, childbirth, and the puerperium	2		1		1				1	1						
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	2	1			1	1				1				1	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	76	34	25	7	4	70	70									
39	Senility, old age	5	2	2		1										2	2
40	Suicide	16	11	3	2					1	2	2		4	2	3	
41	Homicide	4	3	1							1	2	1				
42	Automobile accidents (all motor-driven road vehicles)	10	6	4			1	1		3				1		4	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	52	26	18	7	1	2	6	2	4	6	5	1	5	8	9	5
44	Causes of death ill-defined, unknown, or unspecified	5	4		1		1	1		1		1		2			

Estimated Population, 120,500.

Total Resident Deaths, 1,372.

Rate per 1,000 Population, 11.4.

TABULATION OF DEATHS IN CAPE MAY COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	568	294	224	26	24	23	26	4	2	3	11	12	10	17	89	127	164	85	18	...
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	11	7	1	2	1						2		3	1	1	4				
7	All other forms of tuberculosis .....																				
8	Malaria .....	1	1									1									
9	Syphilis .....	5	3	1		1	1	1								1	2	1			
10	Influenza .....	1		1				1													
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	2	1	1																	
15	Cancer and other malignant tumors .....	81	42	36	1	2					1	1			1	1	19	20	27	10	2
16	Nonmalignant tumors or tumors of unspecified nature .....	2		2																	
17	Chronic rheumatism and gout .....															1				1	
18	Diabetes mellitus .....	15	5	8		2						1					2	5	6	1	
19	Chronic or acute alcoholism .....																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	8	5	2		1	1	1				1	1			2	2	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....																				
22	Intracranial lesions of vascular origin .....	47	16	29	2											4	13	22	7	1	

23	Other diseases of the nervous system and sense organs	4	1	3					1		1						1	1		
24	Diseases of the heart	226	131	78	7	10					1	2	9	36	51	74	43	10		
25	Other diseases of the circulatory system	23	9	12		2			1		2	1		3	3	6	6	1		
26	Bronchitis	2												1						
27	Pneumonia and bronchopneumonia	17	8	5	3	1	4	4	1	1	3		2	1	1	3	1			
28	Other diseases of the respiratory system	3	1	1	1									1	1	1				
29	Diarrhea and enteritis																			
30	Appendicitis	2	1	1										1		1				
31	Diseases of the liver and biliary passages	12	6	5		1					1			4	2	4	1			
32	Other diseases of the digestive system	10	9		1						1		1	4	3	1				
33	Nephritis	32	15	15	2					1		1		3	11	12	4			
34	Other diseases of the urinary and genital systems	2	1			1					1				1					
35	Puerperal infection																			
36	Other diseases of pregnancy, childbirth, and the puerperium																			
37	Diseases of the skin, cellular tissue, bones, and organs of movement																			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	2	1			1				1										
39	Senility, old age	17	9	4	3	1	17	17												
40	Suicide	12	5	6	1													8	4	
41	Homicide	5	4	1									2	3						
42	Automobile accidents (all motor-driven road vehicles)	1			1						1									
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	8	1	6	1					3	1	1		2	1					
44	Causes of death ill-defined, unknown, or unspecified	13	8	5			2	1		1		1		1	2	1	4			
		4	2	1	1										3	1				

Estimated Population, 35,929.

Total Resident Deaths, 568.

Rate per 1,000 Population, 15.8.

TABULATION OF DEATHS IN CUMBERLAND COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	981	464	409	68	40	66	80	7	5	7	21	30	25	43	120	205	251	167	20	....
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....	1		1			1	1													
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	17	10	5		2					1	1	4		1		3	3	4		
7	All other forms of tuberculosis .....	5	1	1	3			1					1	1		2					
8	Malaria .....																				
9	Syphilis .....	7	3	1	2	1	1	1					1	2				2	1		
10	Influenza .....	2	2				1	1												1	
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	9	5	1	2	1		2	2	1	1	1						1			
15	Cancer and other malignant tumors .....	148	63	67	13	5		1			1	2	7	3	4	36	42	40	12		
16	Nonmalignant tumors or tumors of unspecified nature .....	6	2	2	1	1				1			1		2	1	1				
17	Chronic rheumatism and gout .....	2	1	1														1	1		
18	Diabetes mellitus .....	32	10	17	2	3					1	1		1	3	12	10	3	1		
19	Chronic or acute alcoholism .....	1			1									1							
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	6	3	2		1		1			1			1	1			2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	4	3	1												1	2		1		
22	Intracranial lesions of vascular origin .....	94	44	45	2	3				1			1	1	6	12	26	31	15	1	....

23	Other diseases of the nervous system and sense organs	6	3	3			1	2							1	1	2		
24	Diseases of the heart	338	167	154	12	5	1	1	1		1	2	6	17	40	74	106	79	11
25	Other diseases of the circulatory system	20	8	10	2						1				1	2	8	6	2
26	Bronchitis	4	2	2												4			
27	Pneumonia and bronchopneumonia	24	9	10	3	2	11	12								1	4	7	
28	Other diseases of the respiratory system	5	2	3												1	1	3	
29	Diarrhea and enteritis	1	1				1	1											
30	Appendicitis	6	4	2				1	1							3			
31	Diseases of the liver and biliary passages	8	6	1		1		1							2	1	1	2	
32	Other diseases of the digestive system	15	9	4	2					1			2	3	1	3	2	2	2
33	Nephritis	88	33	41	9	5		1			2	3	5	3	5	13	2	2	3
34	Other diseases of the urinary and genital systems	8	5	3							1	1		1		2	2	1	
35	Puerperal infection																		
36	Other diseases of pregnancy, childbirth, and the puerperium	1		1								1							
37	Diseases of the skin, cellular tissue, bones, and organs of movement																		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	47	22	16	7	2	47	47											
39	Senility, old age	7	4	3														1	6
40	Suicide	8	7	1						1		1			1	2	1		
41	Homicide	5	2	2	1		1	1					1	2	1				
42	Automobile accidents (all motor-driven road vehicles)	18	13	1	1	3	1	2	1	1	3	2	2	1		2	2	1	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	37	19	8	5	5	1	5	1	1		6	3		7	3	4	5	2
44	Causes of death ill-defined, unknown, or unspecified	1	1													1			

Estimated Population, 84,241.

Total Resident Deaths, 981.

Rate per 1,000 Population, 11.6.

TABULATION OF DEATHS IN ESSEX COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	9511	4517	3864	609	521	513	584	26	24	42	187	353	334	501	1620	2235	2233	1195	177	....
1	Typhoid and paratyphoid fevers .....	2	1	1											1		1				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	348	166	60	68	54															
7	All other forms of tuberculosis .....	30	7	3	10	10		4		3	3	3	6	3	2	2	1	1	2		1
8	Malaria .....																				
9	Syphilis .....	57	24	12	14	7							3	3	6	16	22	5	2		
10	Influenza .....	3	2			1	1	1						1			1				
11	Smallpox .....																				
12	Measles .....	3		2		1	1	2	1												
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	40	14	16	4	6	1	6	2	2			9	7	3	2	4	2			
15	Cancer and other malignant tumors .....	1575	723	728	57	67	2	5	1	1	2	12	40	65	103	379	454	371	129	13	....
16	Nonmalignant tumors or tumors of unspecified nature .....	34	10	14	2	8							2	8	7	5	7	3	2		
17	Chronic rheumatism and gout .....	7	3	3		1								1		2	2	1	2	1	
18	Diabetes mellitus .....	331	94	213	9	15		1					1	4	2	7	67	125	96	27	1
19	Chronic or acute alcoholism .....	8	4		4								1	1	2	3					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	101	48	44	7	2	6	13	1	1	2	2	1	3	3	32	23	17	3		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	30	12	10	5	3	1	4	1			1	2	2	1	1	6	11	1		
22	Intracranial lesions of vascular origin .....	772	312	382	37	41	1	1			3	3	13	11	33	120	195	230	142	21	....

23	Other diseases of the nervous system and sense organs	57	27	24	3	3	2	6	1	1	9	6	3	4	9	6	8	4	.....		
24	Diseases of the heart	3451	1789	1377	155	130	2	2	1	14	67	82	165	592	918	943	580	85	.....		
25	Other diseases of the circulatory system	265	126	123	9	7	.....	2	1	2	8	6	9	17	57	86	63	17	.....		
26	Bronchitis	22	14	7	.....	1	.....	2	1	1	.....	1	1	3	6	5	1	1	.....		
27	Pneumonia and bronchopneumonia	203	96	66	23	18	27	38	1	1	3	4	10	9	9	24	31	39	25	9	.....
28	Other diseases of the respiratory system	66	36	23	4	3	1	3	1	2	4	2	3	11	15	16	7	4	.....		
29	Diarrhea and enteritis	18	10	4	2	2	5	6	.....	2	2	.....	4	2	.....	2	.....	.....	.....	.....	.....
30	Appendicitis	27	10	12	2	3	.....	1	.....	2	3	.....	1	2	5	8	3	1	.....		
31	Diseases of the liver and biliary passages	179	102	64	5	8	.....	1	.....	2	10	12	18	36	57	34	9	.....	.....		
32	Other diseases of the digestive system	175	96	60	12	7	3	7	1	4	11	8	17	39	43	31	11	2	.....		
33	Nephritis	534	230	229	26	40	1	1	.....	1	20	30	28	88	97	157	101	9	.....		
34	Other diseases of the urinary and genital systems	75	50	16	5	4	.....	1	.....	1	3	3	5	12	22	18	9	.....	.....		
35	Puerperal infection	6	.....	5	.....	1	.....	.....	.....	2	3	1	.....	.....	.....	.....	.....	.....	.....		
36	Other diseases of pregnancy, childbirth, and the puerperium	9	.....	8	.....	1	.....	.....	.....	2	6	1	.....	.....	.....	.....	.....	.....	.....		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	13	7	3	2	1	.....	1	.....	1	1	2	.....	2	1	2	3	.....	.....		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	452	184	142	77	49	436	444	1	2	3	1	1	.....	.....	.....	.....	.....	.....		
39	Senility, old age	19	7	11	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	4	9	5	.....		
40	Suicide	115	37	43	5	.....	.....	.....	.....	14	16	9	7	26	21	18	4	.....	.....		
41	Homicide	35	10	6	11	8	.....	1	.....	2	1	12	8	2	3	5	1	.....	.....		
42	Automobile accidents (all motor-driven road vehicles)	87	67	13	4	3	.....	2	3	1	3	18	9	6	1	9	14	17	4	.....	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	351	157	137	44	13	25	31	8	4	8	24	17	23	20	37	41	81	49	8	.....
44	Causes of death ill-defined, unknown, or unspecified	11	3	3	3	2	.....	1	.....	1	1	.....	2	.....	3	1	2	.....	.....		

Estimated Population, 900,591.

Total Resident Deaths, 9,511.

Rate per 1,000 Population, 10.6.

TABULATION OF DEATHS IN EAST ORANGE CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														Unknown
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	
	ALL CAUSES .....	805	399	427	32	37	34	40	1	1	4	13	21	21	40	133	197	229	162	33	...
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	25	9	6	4	6					1	5	2		1	6	5	3	1	1	
7	All other forms of tuberculosis .....	3	1		1	1					1		1						1		
8	Malaria .....																				
9	Syphilis .....	5	2		3										2	2		1			
10	Influenza .....																				
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	2	1		1					1	1										
15	Cancer and other malignant tumors .....	180	77	96	3	4						1		3	16	40	51	42	25	2	
16	Nonmalignant tumors or tumors of unspecified nature .....	1		1								1									
17	Chronic rheumatism and gout .....																				
18	Diabetes mellitus .....	26	9	13		4							1		1	6	5	10	3		
19	Chronic or acute alcoholism .....	2			2										1	1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	10	5	5							1		1	1		1	5	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	2	2	1													2		1		
22	Intracranial lesions of vascular origin .....	5	19	16		4							2	1	2	10	15	21	15	3	



TABULATION OF DEATHS IN IRVINGTON FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	559	298	265	1	19	24	1	2	1	9	21	15	26	99	144	130	77	10		
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	9	6	3							1	3	2		1	1	1				
7	All other forms of tuberculosis .....	2	1	1			1				1										
8	Malaria .....																				
9	Syphilis .....	2	1	1									1		1						
10	Influenza .....																				
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	1		1							1										
15	Cancer and other malignant tumors .....	103	52	51							1	4	3	7	28	28	24	6	2		
16	Nonmalignant tumors or tumors of unspecified nature .....																				
17	Chronic rheumatism and gout .....	1	1									1									
18	Diabetes mellitus .....	16	3	13											3	4	6	3			
19	Chronic or acute alcoholism .....																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	6	3	3		1	2						1		1		2				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....																				
22	Intracranial lesions of vascular origin .....	40	18	22								1	1	2	6	15	7	8			

23	Other diseases of the nervous system and sense organs	1	1										1						
24	Diseases of the heart	227	129	97	1						4	3	11	34	72	64	35	4	
25	Other diseases of the circulatory system	22	7	15						1	1	1			3	6	7	3	
26	Bronchitis	3	3												1		1		
27	Pneumonia and bronchopneumonia	8	3	5											1	1	4		
28	Other diseases of the respiratory system	4	4		1	1										2	2		
29	Diarrhea and enteritis	1	1										1						
30	Appendicitis												1						
31	Diseases of the liver and biliary passages	10	7	3						1	1				3	3	2		
32	Other diseases of the digestive system	10	6	4		1	1				1				5	2		1	
33	Nephritis	28	17	11				1			1	1	1	8	7	5	3	1	
34	Other diseases of the urinary and genital systems	8	5	3		1							2	1	3	1			
35	Puerperal infection	1		1							1								
36	Other diseases of pregnancy, childbirth, and the puerperium																		
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1		1													1		
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	18	8	10		16	18												
39	Senility, old age	2	1	1														2	
40	Suicide	11	8	3						1	4			3	1	2			
41	Homicide	1		1						1									
42	Automobile accidents (all motor-driven road vehicles)	8	3	5			1	1	1	1	1				1	2			
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	15	5	10										4		4	7		
44	Causes of death ill-defined, unknown, or unspecified																		

Estimated Population, 59,405.

Total Resident Deaths, 559.

Rate per 1,000 Population, 9.4.



23	Other diseases of the nervous system and sense organs	33	19	9	3	2	2	4	1	1	1	5	5	3	3	6	2	3	1	
24	Diseases of the heart	1786	925	645	114	102	2	2	1	1	12	39	55	87	336	514	460	246	33	
25	Other diseases of the circulatory system	151	74	61	9	7	1	1				8	4	2	13	36	53	30	5	
26	Bronchitis	11	7	3		1	1							1	2	2	4		1	
27	Pneumonia and bronchopneumonia	114	55	28	21	10	17	23			3	4	9	7	7	15	19	19	8	
28	Other diseases of the respiratory system	34	15	13	3	3	2	3			1	3		3	6	8	11	1	1	
29	Diarrhea and enteritis	12	5	3	2	2	3	4			2	1		3	1		1			
30	Appendicitis	17	5	8	1	3					1	3		1	3	6	1			
31	Diseases of the liver and biliary passages	104	57	36	4	7					1	7	6	15	23	28	20	4		
32	Other diseases of the digestive system	85	43	27	10	5	1	4			1	1	7	4	9	21	21	14	3	
33	Nephritis	248	106	97	19	26	1	1			1		15	16	19	46	50	63	33	4
34	Other diseases of the urinary and genital systems	39	27	5	3	4					1	2		2	7	12	9	6		
35	Puerperal infection	1				1														
36	Other diseases of pregnancy, childbirth, and the puerperium	4		3		1							4							
37	Diseases of the skin, cellular tissue, bones, and organs of movement	4	2		1	1				1	1	2								
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	273	96	75	61	41	264	267	1	1	2	1	1							
39	Senility, old age	12	2	9		1											1	3	5	3
40	Suicide	56	35	17	4							9	6	4	5	12	13	5	2	
41	Homicide	29	9	5	9	6		1		2	1	9	6	1	3	5	1			
42	Automobile accidents (all motor-driven road vehicles)	42	35	1	3	3		1	2			11	6	3		5	7	6	1	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	207	93	63	41	10	19	21	4	2	6	14	9	14	15	25	27	44	23	3
44	Causes of death ill-defined, unknown, or unspecified	7	1	1	3	2						1	1				3		2	

Estimated Population, 443,000.

Total Resident Deaths, 5,105.

Rate per 1,000 Population, 11.5.

TABULATION OF DEATHS IN GLOUCESTER COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	944	457	384	59	44	54	61	5	6	7	22	32	24	29	131	205	231	174	17	....
1	Typhoid and paratyphoid fevers .....	1	1													1					
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....	1		1			1	1													
5	Diphtheria .....															1					
6	Tuberculosis of the respiratory system .....	13	8	3	1	1				1			3	2	1						
7	All other forms of tuberculosis .....	1		1												1					
8	Malaria .....																				
9	Syphilis .....	6	2	2	2											1	2	3			
10	Influenza .....	1	1									1									
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	8	5		1	1		1	2	1						2					
15	Cancer and other malignant tumors .....	141	54	78	7	2			1	1		1	4	5	8	22	42	39	17	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	3		2		1										2	1				
17	Chronic rheumatism and gout .....	2																			
18	Diabetes mellitus .....	32	9	20		3						1			2	4	14	8	3		
19	Chronic or acute alcoholism .....																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	15	9	4	1	1	2	3			1	1				4	5	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	1	1														1				
22	Intracranial lesions of vascular origin .....	89	39	43	1	6							2	2	3	11	25	29	15	2	

23	Other diseases of the nervous system and sense organs	2	2									1											1		
24	Diseases of the heart	314	165	126	14	9		1		1				4	6	6	50	73	93	72			8		
25	Other diseases of the circulatory system	27	13	14											1				2	5	18		1		
26	Bronchitis	1			1														1						
27	Pneumonia and bronchopneumonia	27	12	8	3	4	8	9						1				2	3	5	3		4		
28	Other diseases of the respiratory system	3	3																1						
29	Diarrhea and enteritis	4	2	1	1		1	2							1				1						
30	Appendicitis	7	2	5						1				1	1	1		1	1						
31	Diseases of the liver and biliary passages	13	8	5										1	1	1	4	3	3			2			
32	Other diseases of the digestive system	12	7	3	2		1	2										1							
33	Nephritis	92	42	32	11	7				1				4	3	2		16	12	26	25		3		
34	Other diseases of the urinary and genital systems	8	6	1		1													2	1	3		2		
35	Puerperal infection																								
36	Other diseases of pregnancy, childbirth, and the puerperium	3		2		1								1	1	1									
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1				1																1			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	41	24	11	3	3	40	40		1															
39	Senility, old age	1		1																				1	
40	Suicide	12	9	2		1								1	2	1			1	4	1	1			
41	Homicide	5		1	4									1	2	1			1						
42	Automobile accidents (all motor-driven road vehicles)	23	16	4	2	1		1	1		2	7	2					1	2	2	4		1		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	32	17	10	4	1	1	1			1	2	5	1				3	2	4		11		2	
44	Causes of death ill-defined, unknown, or unspecified	2		2															1						

Estimated Population, 84,154.

Total Resident Deaths, 944.

Rate per 1,000 Population, 11.2.



23	Other diseases of the nervous system and sense organs .....	41	19	18	2	2	3	1	1	1	5	10	2	3	5	5	6	.....	.....	
24	Diseases of the heart .....	2900	1646	1167	37	50	1	2	1	5	3	25	60	94	135	548	774	812	409	32
25	Other diseases of the circulatory system .....	148	77	69	1	1	.....	.....	.....	.....	.....	5	4	4	11	27	44	50	3	.....
26	Bronchitis .....	13	9	2	1	1	3	4	.....	1	.....	.....	1	2	1	1	1	1	2	.....
27	Pneumonia and bronchopneumonia .....	219	112	98	6	3	49	58	1	1	2	4	4	9	12	30	34	37	24	3
28	Other diseases of the respiratory system .....	48	30	16	2	.....	.....	1	.....	.....	.....	2	2	.....	13	14	8	4	2	.....
29	Diarrhea and enteritis .....	12	5	7	.....	.....	6	8	.....	.....	.....	2	.....	.....	.....	1	1	.....	.....	.....
30	Appendicitis .....	23	15	8	.....	.....	.....	2	1	.....	.....	2	.....	.....	3	5	6	2	2	.....
31	Diseases of the liver and biliary passages .....	158	88	64	5	1	.....	.....	.....	1	1	13	12	17	56	35	27	2	.....	.....
32	Other diseases of the digestive system .....	120	82	36	2	.....	1	1	.....	1	.....	4	4	8	10	23	30	26	9	4
33	Nephritis .....	256	113	125	5	13	.....	2	.....	.....	1	7	13	11	11	46	54	74	29	8
34	Other diseases of the urinary and genital systems .....	44	29	13	2	.....	.....	.....	.....	.....	.....	2	.....	3	3	6	11	12	7	.....
35	Puerperal infection .....	3	.....	2	.....	1	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium .....	10	.....	9	.....	1	.....	.....	.....	.....	.....	5	5	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	11	4	5	.....	2	1	1	.....	3	.....	1	.....	2	1	2	.....	.....	1	.....
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	262	149	89	13	11	255	261	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age .....	10	1	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Suicide .....	69	59	9	.....	1	.....	.....	1	1	.....	6	9	7	6	19	15	5	.....	.....
41	Homicide .....	8	2	3	2	1	1	1	.....	.....	.....	1	3	2	.....	1	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles) .....	66	49	16	1	.....	.....	1	2	2	.....	12	4	4	4	12	12	11	2	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	276	173	96	5	2	5	12	2	5	1	15	19	13	18	50	42	51	40	8
44	Causes of death ill-defined, unknown, or unspecified .....	4	3	1	.....	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....	1	.....	.....	.....

Estimated Population, 673,303.

Total Resident Deaths, 7,092.

Rate per 1,000 Population, 10.5.

TABULATION OF DEATHS IN BAYONNE FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
																					Male	Female
	ALL CAUSES .....	708	400	283	11	14	39	47	2	3	2	13	28	27	46	174	172	145	48	1	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	25	21	1	3							3	9			8	4	1				
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....																					
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....											1										
14	Other infectious or parasitic diseases .....	3	1	2														2				
15	Cancer and other malignant tumors .....	128	74	52	1	1				1			4	6	10	31	40	31	5			
16	Nonmalignant tumors or tumors of unspecified nature .....	3	1	2												2						
17	Chronic rheumatism and gout .....																					
18	Diabetes mellitus .....	25	4	20		1										7	17	1				
19	Chronic or acute alcoholism .....																					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	9	4	5			1	1					2			2	2	1	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....																					
22	Intracranial lesions of vascular origin .....	65	32	29	1	1								3	4	20	17	11	6			



TABULATION OF DEATHS IN HOBOKEN FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
				Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	669	403	251	11	4	27	30	1	3	3	14	23	28	44	120	166	164	66	7	....	
1	Typhoid and paratyphoid fevers .....	1	1												1							
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....	1	1												1							
6	Tuberculosis of the respiratory system .....	35	31	3	1									1	4	5	4	6	8	6	1	
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....	4	3	1													2	2				
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	3	2	1																		
15	Cancer and other malignant tumors .....	96	61	32	2	1								4	3	11	24	25	21	6	2	
16	Nonmalignant tumors or tumors of unspecified nature .....																					
17	Chronic rheumatism and gout .....	1		1																		
18	Diabetes mellitus .....	23	6	17													1	11	10		1	
19	Chronic or acute alcoholism .....																					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	3	2	1			1	2											1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....																					
22	Intracranial lesions of vascular origin .....	43	21	21	1										3	2	8	9	18	3		

23	Other diseases of the nervous system and sense organs .....	3	1	2						1				1	1				
24	Diseases of the heart .....	279	171	102	5	1			1	1	2	6	9	15	41	86	75	40	3
25	Other diseases of the circulatory system .....	10	5	5								1			2	2	3	2	
26	Bronchitis .....	4	4				1	1						2		1			
27	Pneumonia and bronchopneumonia .....	26	15	11			3	4						1	10	5	3	3	
28	Other diseases of the respiratory system .....	4	2	2								1	1			1		1	
29	Diarrhea and enteritis .....	1		1			1	1											
30	Appendicitis .....	2	1	1							1								
31	Diseases of the liver and biliary passages .....	25	13	12						1	2	2	5	6	5	4			
32	Other diseases of the digestive system .....	9	6	3								1	1	1	2	2	1	2	
33	Nephritis .....	21	10	11						1		2	2		3	5	7	1	
34	Other diseases of the urinary and genital systems .....	3	2	1											1		2		
35	Puerperal infection .....																		
36	Other diseases of pregnancy, childbirth, and the puerperium .....	1		1							1								
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	1	1												1				
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	21	12	6	2	1	21	21											
39	Senility, old age .....	1		1															1
40	Suicide .....	7	7							1	1			1	2		2		
41	Homicide .....																		
42	Automobile accidents (all motor-driven road vehicles) .....	6	4	2				1		2	1						2		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	35	21	13		1		1	1	2	1	2	1	12	1	8	6		
44	Causes of death ill-defined, unknown, or unspecified .....																		

Estimated Population, 51,605.

Total Resident Deaths, 669.

Rate per 1,000 Population, 13.0.

TABULATION OF DEATHS IN JERSEY CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods															
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	3397	1770	1407	111	109	175	197	6	11	10	78	139	136	195	621	833	767	358	46	...	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	136	82	33	16	5					2	8	20	8	23	30	26	15	2	2		
7	All other forms of tuberculosis .....	8	6	2				1					3	1		2	1					
8	Malaria .....																					
9	Syphilis .....	23	14	2	5	2						1	1			6	10	5				
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	13	11	2		1	1			1	1	3	2	1	1	2	1					
15	Cancer and other malignant tumors .....	500	285	246	14	15		3	2			7	16	26	38	135	184	112	33	4		
16	Nonmalignant tumors or tumors of unspecified nature .....	9	2	4	1	2		1					2	1		5						
17	Chronic rheumatism and gout .....	2		2													1					
18	Diabetes mellitus .....	90	22	65	1	2							3		4	11	33	34	5			
19	Chronic or acute alcoholism .....	8	7			1						1	3	1	1	1	1					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	40	16	22		2		3	1	1	3	6	4		3	7	8	4				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	7	3	2	1	1	1	1					1			4	1					
22	Intracranial lesions of vascular origin .....	253	100	140	6	7	1	1					2	8	20	46	64	69	38	5		

23	Other diseases of the nervous system and sense organs .....	16	7	5	2	2	.....	.....	.....	1	4	6	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the heart .....	1373	744	561	30	38	.....	.....	2	1	14	32	45	61	256	369	393	185	15
25	Other diseases of the circulatory system .....	83	41	40	1	1	.....	.....	.....	.....	2	2	2	6	13	25	30	3	.....
26	Bronchitis .....	4	1	1	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Pneumonia and bronchopneumonia .....	113	58	46	6	3	24	26	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Other diseases of the respiratory system .....	32	20	11	1	.....	.....	.....	.....	.....	1	1	1	.....	8	12	4	2	2
29	Diarrhea and enteritis .....	9	3	6	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
30	Appendicitis .....	8	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Diseases of the liver and biliary passages .....	55	26	26	2	1	.....	.....	.....	.....	.....	8	5	4	19	11	7	1	.....
32	Other diseases of the digestive system .....	59	42	15	2	.....	.....	.....	.....	1	3	2	5	5	10	14	13	5	1
33	Nephritis .....	117	46	53	5	13	.....	1	.....	.....	4	6	7	7	24	21	25	17	5
34	Other diseases of the urinary and genital systems .....	28	17	9	2	.....	.....	.....	.....	.....	1	.....	.....	2	3	2	9	8	3
35	Puerperal infection .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
36	Other diseases of pregnancy, childbirth, and the puerperium .....	6	.....	5	.....	.....	.....	.....	.....	.....	4	2	.....	.....	.....	.....	.....	.....	.....
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	6	3	1	.....	2	1	1	.....	.....	.....	.....	.....	.....	1	1	.....	.....	1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	140	75	49	10	6	137	139	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Senility, old age .....	3	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
40	Suicide .....	29	23	5	.....	.....	.....	.....	.....	.....	3	4	4	4	7	5	1	.....	1
41	Homicide .....	5	.....	2	2	1	1	1	.....	.....	1	2	1	.....	.....	.....	.....	.....	.....
42	Automobile accidents (all motor-driven road vehicles) .....	29	25	3	1	.....	.....	.....	1	.....	7	2	2	2	6	5	4	.....	.....
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	131	86	42	2	1	3	8	.....	2	1	6	11	9	6	22	21	22	18
44	Causes of death ill-defined, unknown, or unspecified .....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Estimated Population, 315,000.

Total Resident Deaths, 3,397.

Rate per 1,000 Population, 10.8.

TABULATION OF DEATHS IN UNION CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown			
	ALL CAUSES .....	639	361	277	1	.....	22	29	3	1	1	10	19	22	36	124	159	151	77	7	.....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	15	13	2									2	1	4	2	4	1	1			
7	All other forms of tuberculosis .....	2	2					1									1					
8	Malaria .....																					
9	Syphilis .....	5	3	2											1	1	2	1				
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	2	1	1			1			1												
15	Cancer and other malignant tumors .....	119	61	58			2				1	5	4	7	33	30	25	11	1			
16	Nonmalignant tumors or tumors of unspecified nature .....	2		2											1	1						
17	Chronic rheumatism and gout .....	2	1	1																		
18	Diabetes mellitus .....	26	9	11											4	8	8					
19	Chronic or acute alcoholism .....	1	1											1								
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	3	2	1			1	1							1			1				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	1	1													1						
32	Intracranial lesions of vascular origin .....	48	22	26			1	1						1	8	16	12	8	2			

23	Other diseases of the nervous system and sense organs	5	4	1				1					1	1		1		1			
24	Diseases of the heart	265	157	108				1					1	5	9	14	41	75	70	45	4
25	Other diseases of the circulatory system	7	1	6											1			1	1	4	
26	Bronchitis	2	2															1	1		
27	Pneumonia and bronchopneumonia	24	12	12				5	8	1			3		2		4	2	3	1	
28	Other diseases of the respiratory system	3	3															1	2		
29	Diarrhea and enteritis																		2		
30	Appendicitis	4	1	3														3	1		
31	Diseases of the liver and biliary passages	17	10	6	1								1	1	1	5	2	6	1		
32	Other diseases of the digestive system	9	7	2										1	1	1	2	3	2		
33	Nephritis	25	10	15									1		2	4	11	5	2		
34	Other diseases of the urinary and genital systems	2	2															1		1	
35	Puerperal infection																				
36	Other diseases of pregnancy, childbirth, and the puerperium	1		1									1								
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3		3					1				1					1			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	15	7	8				15	15												
39	Senility, old age	1	1																	1	
40	Suicide	10	9	1									1	2		1	4	1	1		
41	Homicide																				
42	Automobile accidents (all motor-driven road vehicles)	5	3	2									1				1	1	2		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	20	15	5										2		4	2	5	5	2	
44	Causes of death ill-defined, unknown, or unspecified	1	1																1		

Estimated Population, 58,000.

Total Resident Deaths, 639.

Rate per 1,000 Population, 11.0.

TABULATION OF DEATHS IN HUNTERDON COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods													Unknown		
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89		90 and over	
	ALL CAUSES .....	501	281	214	4	2	36	42	3	1	2	5	8	15	20	61	87	152	92	13	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	6	2	2	2		1								2	2	1					
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....																					
10	Influenza .....	1	1																	1		
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	6	2	3	1							1	1	1		1	2					
15	Cancer and other malignant tumors .....	77	39	36	1	1	1	1				1	1	5	3	20	13	24	8	1		
16	Nonmalignant tumors or tumors of unspecified nature .....																					
17	Chronic rheumatism and gout .....																					
18	Diabetes mellitus .....	15	4	11								1			2	4	3	4	1			
19	Chronic or acute alcoholism .....	1	1												1							
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	6	2	4				1		1	1			1			1	1				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....																					
22	Intracranial lesions of vascular origin .....	44	24	20									2			2	4	22	10	4		



TABULATION OF DEATHS IN MERCER COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods															
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
			2219	1142	870	115	92	133	154	16	12	22	49	90	73	91	372	516	505	272	47	....
1	Typhoid and paratyphoid fevers	1	1																			
2	Plague																					
3	Scarlet fever																					
4	Whooping cough																					
5	Diphtheria	1		1																		
6	Tuberculosis of the respiratory system	83	40	20	17	6					1			16	6	12	14	16	7	3		
7	All other forms of tuberculosis	7	2	2	2	1					1			3	1			1	1			
8	Malaria																					
9	Syphilis	13	5	2	5	1	3	3						2	1	1	2	3	1			
10	Influenza	1	1													1						
11	Smallpox																					
12	Measles	1	1						1	1												
13	Typhus fever																					
14	Other infectious or parasitic diseases	13	7	6			1	2						2	1	1	3	2	1			
15	Cancer and other malignant tumors	330	162	147	11	10			1	1	1	1	1	2	12	13	19	81	93	78	26	2
16	Nonmalignant tumors or tumors of unspecified nature	8	3	2	3						1				1	3		2	1			
17	Chronic rheumatism and gout	4	1	2		1													3	1		
18	Diabetes mellitus	72	27	42		3											11	29	21	9		
19	Chronic or acute alcoholism	5	3		2									1		2	2					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings	27	13	12		2	1	4	1	1	3	2	4	1			3	5	3			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord	10	6	4					1		1	1	1	2				2	2			
22	Intracranial lesions of vascular origin	197	71	110	11	5								1	2	4	10	25	60	53	32	4

23	Other diseases of the nervous system and sense organs .....	17	8	6	1	2	2	2	2	1	1	1	2	3	1	4	2	1	1	22
24	Diseases of the heart .....	756	440	271	22	23	1	1	1	1	3	14	17	24	150	197	217	109	22	
25	Other diseases of the circulatory system .....	98	49	42	3	4	1	3	1	1	1	1	1	1	5	16	33	40	3	
26	Bronchitis .....	10	6	4	1	1	3	1	1	1	1	1	1	1	4	1	1	1	1	
27	Pneumonia and bronchopneumonia .....	77	40	23	7	7	20	23	2	2	2	1	1	2	10	11	14	7	2	
28	Other diseases of the respiratory system .....	18	6	8	3	1	1	1	1	1	1	1	2	2	3	1	4	1	3	
29	Diarrhea and enteritis .....	3	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
30	Appendicitis .....	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
31	Diseases of the liver and biliary passages .....	40	19	17	1	3	1	1	1	1	1	4	4	3	10	8	9	1	1	
32	Other diseases of the digestive system .....	37	22	14	1	2	2	1	1	1	1	2	1	15	6	6	3	1	1	
33	Nephritis .....	94	44	42	4	4	1	1	1	2	1	3	4	2	14	26	21	14	7	
34	Other diseases of the urinary and genital systems .....	18	17	1	1	1	1	1	1	1	1	1	1	1	3	3	4	6	1	
35	Puerperal infection .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
36	Other diseases of pregnancy, childbirth, and the puerperium .....	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	6	1	5	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	99	46	38	11	4	95	98	1	1	1	1	1	1	1	1	1	1	1	
39	Senility, old age .....	8	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
40	Suicide .....	26	16	8	2	2	1	1	1	1	2	2	4	4	3	6	2	1	1	
41	Homicide .....	8	6	1	1	2	2	1	1	1	1	1	1	1	3	1	1	1	1	
42	Automobile accidents (all motor-driven road vehicles) .....	40	31	6	1	2	1	4	1	3	4	6	2	2	5	6	5	1	1	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	81	41	23	7	10	3	6	5	2	4	10	1	4	3	2	14	16	12	
44	Causes of death ill-defined, unknown, or unspecified .....	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Estimated Population, 222,629.

Total Resident Deaths, 2,219.

Rate per 1,000 Population, 10.0.

TABULATION OF DEATHS IN TRENTON FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	1387	720	519	80	68	85	96	7	7	14	33	68	42	60	226	332	311	169	22	....
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....			1				1													
6	Tuberculosis of the respiratory system .....	65	30	16	14	5		1		1		1	16	3	10	8	12	5	2		
7	All other forms of tuberculosis .....	5		2	2	1		1				3						1			
8	Malaria .....																				
9	Syphilis .....	7	3	1	3		2	2					1		2	2					
10	Influenza .....	1	1												1						
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	8	4	4			1	2			1	1	1	1	2			1			
15	Cancer and other malignant tumors .....	206	105	87	6	8		1		1	1	1	9	9	13	51	57	47	15	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	6	3	1	2					1			1	2		1	1				
17	Chronic rheumatism and gout .....	4	1	2		1											3	1			
18	Diabetes mellitus .....	48	19	28		1							1		4	18	18	7			
19	Chronic or acute alcoholism .....	1			1									1							
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	13	5	7		1			1	1	1	2	2	1		1	2	2			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	4	3	1						1			1				1	1			
22	Intracranial lesions of vascular origin .....	125	45	67	9	4							7	3	8	13	36	37	19	2	



TABULATION OF DEATHS IN MIDDLESEX COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods													Unknown		
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89		90 and Over	
	ALL CAUSES .....	2270	1244	924	63	39	136	161	16	6	13	58	106	71	112	408	538	498	250	33	...	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	43	23	17	2	1		1				6	7	1	2	16	7	3				
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....	11	8	1	1	1							1		1	4	4	1				
10	Influenza .....	1		1														1				
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	11	7	4								4	3			2	1	1				
15	Cancer and other malignant tumors .....	386	210	164	9	3		2			1	5	21	15	29	95	102	86	29	1		
16	Nonmalignant tumors or tumors of unspecified nature .....	6	2	2		2		1					2		2	1						
17	Chronic rheumatism and gout .....	6	2	4								1			1		1	1	1	1	1	
18	Diabetes mellitus .....	71	29	41		1		1					1		2	16	28	19	4			
19	Chronic or acute alcoholism .....	4	3		1								1	1				2				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	25	15	10				2	3	1		1	2	1	2	5	4	4	1	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	7	1	5		1		2	3							1	1	2				
22	Intracranial lesions of vascular origin .....	194	93	95	2	4						1	3	4	10	38	47	59	30	2		

23	Other diseases of the nervous system and sense organs	11	4	7			1	1	2	1	1	1	1	1	4					
24	Diseases of the heart	808	470	320	12	6			1	1	3	4	18	27	31	150	231	213	114	16
25	Other diseases of the circulatory system	51	25	23	2	1					1	1	1		1	6	7	17	15	3
26	Bronchitis	3	1	1		1	1	1			1									1
27	Pneumonia and bronchopneumonia	45	21	20	4		12	14		1		2	1	3	3	2	3	11	5	
28	Other diseases of the respiratory system	16	6	8	1	1	1	2				1	2	1	2	2	4	1	1	
29	Diarrhea and enteritis	4	2	2			1	1				3								
30	Appendicitis	4	3	1								1					3			
31	Diseases of the liver and biliary passages	63	33	29	1		1	2	1	1		3	6	4	5	19	13	8	1	
32	Other diseases of the digestive system	48	30	17		1		1	1			2	5	2	1	8	13	12	3	
33	Nephritis	122	65	49	3	5		2	1		1	4	2	3	3	14	33	34	21	4
34	Other diseases of the urinary and genital systems	25	19	5		1		1					4	1	1	4	1	6	7	
35	Puerperal infection																			
36	Other diseases of pregnancy, childbirth, and the puerperium	4		4									2	2						
37	Diseases of the skin, cellular tissue, bones, and organs of movement	2	2									1								
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	117	62	46	5	4	112	116	1											
39	Senility, old age	5	2	3															3	2
40	Suicide	34	24	9	1							2	6	1	6	7	7	4	1	
41	Homicide	9	2	1	6								4		2	1	1	1		
42	Automobile accidents (all motor-driven road vehicles)	31	23	5	3			2	3	1	1	7	2	1	1	4	6	3		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	98	54	28	10	6	3	8	5	2	5	8	11	3	7	10	14	11	11	3
44	Causes of death ill-defined, unknown, or unspecified	5	3	2									1			1	1		2	

Estimated Population, 251,511.

Total Resident Deaths, 2,270.

Rate per 1,000 Population, 9.0.

TABULATION OF DEATHS IN MONMOUTH COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	2482	1212	1006	145	119	126	147	8	8	6	40	91	62	99	353	556	646	392	74	....
1	Typhoid and paratyphoid fevers .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Scarlet fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Whooping cough .....	2	1	.....	.....	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Diphtheria .....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Tuberculosis of the respiratory system .....	55	31	5	13	6	.....	.....	.....	.....	1	2	9	3	6	15	10	2	.....	1	.....
7	All other forms of tuberculosis .....	4	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....
8	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Syphilis .....	15	6	5	3	1	.....	.....	.....	.....	.....	.....	.....	4	2	6	2	.....	1	.....	.....
10	Influenza .....	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	1	.....	.....
11	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Typhus fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Other infectious or parasitic diseases .....	12	5	6	1	.....	1	1	.....	.....	.....	.....	4	.....	1	3	.....	.....	.....	.....	.....
15	Cancer and other malignant tumors .....	370	156	178	10	26	.....	.....	.....	.....	.....	2	12	12	7	77	100	123	34	3	.....
16	Nonmalignant tumors or tumors of unspecified nature .....	7	3	3	.....	1	.....	.....	.....	.....	.....	.....	1	2	.....	1	.....	.....	.....	2	.....
17	Chronic rheumatism and gout .....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Diabetes mellitus .....	66	27	34	2	3	.....	.....	.....	.....	.....	1	.....	1	4	6	28	19	.....	1	.....
19	Chronic or acute alcoholism .....	5	1	3	.....	1	.....	.....	.....	.....	.....	1	.....	2	1	1	.....	.....	.....	.....	.....
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	23	10	10	1	2	.....	4	1	1	.....	.....	1	1	.....	2	8	2	3	.....	.....
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	4	3	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	1	1	.....	.....	.....
22	Intracranial lesions of vascular origin .....	187	67	98	9	15	.....	.....	.....	.....	1	.....	.....	3	6	10	26	40	59	37	5

23	Other diseases of the nervous system and sense organs	16	8	5	3			3		1	1	1	2	1	1	2	1	2	1		
24	Diseases of the heart	965	516	378	44	27				1		5	13	16	37	142	247	290	184	30	
25	Other diseases of the circulatory system	79	38	36	3	2							1	1		3	12	27	26	9	
26	Bronchitis	5	5													1	1	2			
27	Pneumonia and bronchopneumonia	60	25	20	12	3	11	12				1	2	3		5	5	15	15	2	
28	Other diseases of the respiratory system	31	14	14	2	1						1	1		1	5	3	5	9	6	
29	Diarrhea and enteritis	4	3	1			3	4													
30	Appendicitis	7	1	5	1							1				3		2			
31	Diseases of the liver and biliary passages	39	24	13	1	1						1	6	4	8	10	7	2	1		
32	Other diseases of the digestive system	44	23	14	5	2		2				2	1		2	6	16	10	4	1	
33	Nephritis	139	57	66	5	11		1				3	6	2	5	16	34	45	24	3	
34	Other diseases of the urinary and genital systems	16	9	4	2	1							1	1	1	2	5	2	4		
35	Puerperal infection	1		1									1								
36	Other diseases of pregnancy, childbirth, and the puerperium	2		2								1	1								
37	Diseases of the skin, cellular tissue, bones, and organs of movement																				
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	107	57	34	9	7	106	107										5	13	8	
39	Senility, old age	24	12	9	1	2												9	2		
40	Suicide	37	31	5	1							5	1	3	9	8					
41	Homicide	7	1	2	2	2						2	1	1	2			1			
42	Automobile accidents (all motor-driven road vehicles)	38	22	14	1	1	1	1		2	8	4	3	3	6	4	4	4	2		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	93	44	33	13	3	3	9	5	3	2	3	17	2	4	10	6	10	18	4	
44	Causes of death ill-defined, unknown, or unspecified	12	5	6	1								2		2	1	3	2	1	1	

Estimated Population, 208,660.

Total Resident Deaths, 2,482.

Rate per 1,000 Population, 11.9.

TABULATION OF DEATHS IN MORRIS COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	1514	792	672	31	19	103	120	10	4	6	21	51	38	54	218	336	370	250	36	....
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	34	25	7	1	1						6	1	1	8	8	4	6			
7	All other forms of tuberculosis .....	1	1																		
8	Malaria .....																				
9	Syphilis .....	11	7	1	1	2						1	1	1	3	2	3				
10	Influenza .....	2		1		1									1					1	
11	Smallpox .....																				
12	Measles .....	2	1	1				1	1												
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	6	4	3					1		2					1	1	1			
15	Cancer and other malignant tumors .....	231	110	115	2	4	2	1			1	4	8	20	48	61	58	28			
16	Nonmalignant tumors or tumors of unspecified nature .....	6	2	3		1						2		2	2						
17	Chronic rheumatism and gout .....	4	1	3										1				1			
18	Diabetes mellitus .....	56	16	36	3	1								2	10	22	17	5			
19	Chronic or acute alcoholism .....																				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....																				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	13	8	5			3	3				1	1		2	4	2				
22	Intracranial lesions of vascular origin .....	3	2	1											1		2				
		107	44	60	3		1	1	1		1				2	14	21	37	25	5	

23	Other diseases of the nervous system and sense organs	7	3	4			1	1						1	3	1		1	
24	Diseases of the heart	552	300	236	6	1			1		2	17	10	10	84	145	168	102	13
25	Other diseases of the circulatory system	65	32	29	3	1									3	11	15	28	6
26	Bronchitis	2	1	1															
27	Pneumonia and bronchopneumonia	41	16	22	2	1	10	12		1	2		1		2	7	6	9	1
28	Other diseases of the respiratory system	6	3	3										2	1	2	1		
29	Diarrhea and enteritis	2	2				1	1								1			
30	Appendicitis	3	1	2						1	1						1		
31	Diseases of the liver and biliary passages	30	19	11						1	1		1		9	10	4	4	
32	Other diseases of the digestive system	23	15	8			1	1				4	1	4	6	3	2	1	
33	Nephritis	88	44	41	1	2				1	2	3	2	9	21	31	16	3	
34	Other diseases of the urinary and genital systems	11	9	1	1						1				3	3	3	1	
35	Puerperal infection																		
36	Other diseases of pregnancy, childbirth, and the puerperium	1		1						1									
37	Diseases of the skin, cellular tissue, bones, and organs of movement	3	1	2											1	1		1	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	88	50	34	2	2	85	86	1	1									
39	Senility, old age	4		4														3	1
40	Suicide	24	22	2						3	3		3	8	2	4	1		
41	Homicide	1		1						1									
42	Automobile accidents (all motor-driven road vehicles)	21	15	5	1		2	1	5	2	3	1	1		2	3	1		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	65	29	29	5	2	1	7	4	1	3	9	5	4	5	3	7	13	4
44	Causes of death ill-defined, unknown, or unspecified	1		1			1	1											

Estimated Population, 158,987.

Total Resident Deaths, 1,514.

Rate per 1,000 Population, 9.5.

TABULATION OF DEATHS IN OCEAN COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown
	ALL CAUSES .....	632	362	250	9	11	20	24	2	1	10	22	17	40	93	145	175	92	11	.....	
1	Typhoid and paratyphoid fevers .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
2	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
3	Scarlet fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
4	Whooping cough .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
5	Diphtheria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
6	Tuberculosis of the respiratory system .....	12	7	3	.....	2	.....	.....	.....	.....	1	3	1	2	2	1	1	1	.....	.....	
7	All other forms of tuberculosis .....	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
8	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
9	Syphilis .....	4	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	2	.....	1	1	.....	.....	.....	
10	Influenza .....	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
11	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
12	Measles .....	1	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
13	Typhus fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
14	Other infectious or parasitic diseases .....	3	1	2	.....	.....	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....	
15	Cancer and other malignant tumors .....	92	50	40	1	1	.....	.....	.....	.....	.....	1	3	9	17	34	20	7	1	.....	
16	Nonmalignant tumors or tumors of unspecified nature .....	6	2	4	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	2	.....	1	.....	.....	
17	Chronic rheumatism and gout .....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
18	Diabetes mellitus .....	17	9	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	5	6	1	.....	.....	
19	Chronic or acute alcoholism .....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	4	1	3	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
22	Intracranial lesions of vascular origin .....	48	23	24	.....	1	.....	.....	.....	.....	.....	1	1	2	4	9	23	6	2	.....	



TABULATION OF DEATHS IN PASSAIC COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
																					Male	Female
	ALL CAUSES .....	3317	1836	1343	73	65	173	211	13	11	12	66	105	96	150	546	780	829	434	64	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....	1				1	1	1														
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	84	49	16	8	11		1				11	7	5	12	16	24	5	3			
7	All other forms of tuberculosis .....	4	3	1				1		1							2					
8	Malaria .....																					
9	Syphilis .....	21	14	2	3	2							2			7	6	2	2			
10	Influenza .....	3	1	2			1	1				1						1				
11	Smallpox .....																					
12	Measles .....	3	3					1	2													
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	13	5	6	1	1						2	3		1	2		2	1			
15	Cancer and other malignant tumors .....	564	318	234	8	4	1	5	1		2	7	16	24	27	131	151	138	58	1		
16	Nonmalignant tumors or tumors of unspecified nature .....	7	3	4												1	1	3	1	1		
17	Chronic rheumatism and gout .....	4	1	3												1	2			1		
18	Diabetes mellitus .....	129	40	87	1	1		1						2	3	25	50	37	10			
19	Chronic or acute alcoholism .....	9	3		6							1		1	3	2	1	1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	37	18	16	1	2		3	1			4	4	1	2	5	11	5	1			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	7	3	3	1			1						1		3	2					
22	Intracranial lesions of vascular origin .....	330	153	165	8	4	1	1				2	7	7	14	55	83	117	41	3		

23	Other diseases of the nervous system and sense organs .....	18	9	9	.....	.....	1	1	1	2	2	3	4	4	1	.....	.....			
24	Diseases of the heart .....	1099	650	427	12	10	2	1	1	2	6	16	20	56	188	280	323	178	17	
25	Other diseases of the circulatory system .....	175	90	82	3	.....	.....	.....	.....	.....	3	2	3	12	19	61	57	18	.....	
26	Bronchitis .....	12	9	3	.....	.....	1	3	.....	.....	.....	.....	.....	2	4	2	1	.....	.....	
27	Pneumonia and bronchopneumonia .....	94	54	32	3	5	19	26	1	2	.....	3	.....	1	14	13	18	13	3	
28	Other diseases of the respiratory system .....	20	14	4	1	1	1	4	.....	.....	.....	3	.....	3	2	6	2	.....	.....	
29	Diarrhea and enteritis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
30	Appendicitis .....	7	4	3	.....	.....	.....	.....	1	.....	.....	1	2	2	1	.....	.....	.....	.....	
31	Diseases of the liver and biliary passages .....	71	41	26	1	3	.....	.....	.....	.....	2	2	5	4	20	16	17	5	.....	
32	Other diseases of the digestive system .....	69	40	26	2	1	1	1	2	.....	.....	.....	3	3	9	30	13	6	2	
33	Nephritis .....	134	69	59	1	5	.....	1	.....	.....	5	9	5	4	10	33	32	28	3	
34	Other diseases of the urinary and genital systems .....	36	26	8	.....	2	.....	.....	.....	.....	3	1	1	1	3	9	12	5	1	
35	Puerperal infection .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
36	Other diseases of pregnancy, childbirth, and the puerperium .....	8	.....	7	.....	1	.....	.....	.....	.....	3	4	1	.....	.....	.....	.....	.....	.....	
37	Diseases of the skin, cellular tissue, bones, and organs of movement .....	7	3	4	.....	.....	.....	.....	.....	1	2	1	.....	.....	3	.....	.....	.....	.....	
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life .....	145	89	49	3	4	139	143	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	
39	Senility, old age .....	12	5	6	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	4	4	.....	
40	Suicide .....	54	32	21	1	.....	.....	.....	.....	.....	6	8	3	5	10	11	9	2	.....	
41	Homicide .....	8	5	2	1	.....	2	2	.....	.....	2	2	1	.....	.....	1	.....	.....	.....	
42	Automobile accidents (all motor-driven road vehicles) .....	31	25	4	2	.....	2	1	1	1	5	4	.....	2	3	5	5	2	.....	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted) .....	98	55	31	6	6	5	9	4	5	2	4	7	2	2	12	7	21	15	8
44	Causes of death ill-defined, unknown, or unspecified .....	3	2	1	.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	

Estimated Population, 345,119.

Total Resident Deaths, 3,317.

Rate per 1,000 Population, 9.6.

TABULATION OF DEATHS IN PASSAIC CITY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	589	334	224	15	16	29	35	1	.....	12	24	20	29	126	154	123	59	6	.....	
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	20	11	6	1	2					3	3		2	3	8	1				
7	All other forms of tuberculosis .....																				
8	Malaria .....																				
9	Syphilis .....	6	3		1	2					1			3	1	1					
10	Influenza .....																				
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	2	1	1										1		1					
15	Cancer and other malignant tumors .....	104	59	42	1	2					5	4	6	33	31	17	8				
16	Nonmalignant tumors or tumors of unspecified nature .....																				
17	Chronic rheumatism and gout .....	1		1												1					
18	Diabetes mellitus .....	28	10	18										1	4	11	12				
19	Chronic or acute alcoholism .....	2	2											1	1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	8	4	3		1		1			1	1		3	2						
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	3	1	1	1									2							
22	Intracranial lesions of vascular origin .....	70	31	35	2	2					1		2	2	14	24	22	5			



TABULATION OF DEATHS IN PATERSON FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods														
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and over	Unknown
	ALL CAUSES .....	1648	874	678	51	45	74	88	7	8	5	32	56	46	73	241	392	429	230	41	....
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	48	25	7	7	9		1				7	3	4	9	7	10	4	3		
7	All other forms of tuberculosis .....	2	1	1				1		1											
8	Malaria .....																				
9	Syphilis .....	9	6	1	2							1				1	4	1	2		
10	Influenza .....	2	1	1			1	1				1									
11	Smallpox .....																				
12	Measles .....	1	1							1											
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	6	1	3	1	1						1	2				1		1	1	
15	Cancer and other malignant tumors .....	261	139	113	7	2		2			1	2	8	10	12	59	73	67	26	1	
16	Nonmalignant tumors or tumors of unspecified nature .....	5	1	4												1	1	2		1	
17	Chronic rheumatism and gout .....	3	1	2													1	1		1	
18	Diabetes mellitus .....	62	19	41	1	1					1			1	2	10	21	20	7		
19	Chronic or acute alcoholism .....	6			6							1		1	1	1	1	1			
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	17	8	8		1		1				1	3		1	2	5	3	1		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	1						1													
22	Intracranial lesions of vascular origin .....	172	79	86	5	2							6	4	8	23	41	61	27	2	







TABULATION OF DEATHS IN SOMERSET COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	805	423	348	19	15	49	56	5	3	8	18	37	29	23	118	186	185	114	23	
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	17	8	6	1	2						1	6	2		2	4	2			
7	All other forms of tuberculosis .....																				
8	Malaria .....																				
9	Syphilis .....	4	2		1	1	1	1								2	1				
10	Influenza .....	1	1													1					
11	Smallpox .....																				
12	Measles .....																				
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	7	5	2											2	1		2	1		
15	Cancer and other malignant tumors .....	122	62	59	1		1	1		1	2	4	7	4	25	41	22	13	1		
16	Nonmalignant tumors or tumors of unspecified nature .....	4	3	1							1				1	2					
17	Chronic rheumatism and gout .....	2		2																2	
18	Diabetes mellitus .....	32	11	21										2	7	9	11	3			
19	Chronic or acute alcoholism .....	2	2									1			1						
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....																				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	11	6	4	1		1	3			1	1			5			1			
22	Intracranial lesions of vascular origin .....	84	30	45	6	3	1	1			1	2	3	2	8	21	33	11	2		

23	Other diseases of the nervous system and sense organs	9	6	2	1	1	2	1	4	1	1	1	1	1	1	1	1	1	1	1
24	Diseases of the heart	256	149	102	4	1	1	1	1	8	5	5	37	71	69	47	13	1	1	1
25	Other diseases of the circulatory system	8	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Bronchitis	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Pneumonia and bronchopneumonia	28	10	15	2	1	2	3	1	3	1	2	6	6	4	2	1	1	1	1
28	Other diseases of the respiratory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Diarrhea and enteritis	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Appendicitis	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Diseases of the liver and biliary passages	15	12	3	1	1	1	1	1	2	1	3	6	1	1	1	1	1	1	1
32	Other diseases of the digestive system	23	14	8	1	1	1	1	1	1	1	4	5	1	1	1	1	1	1	1
33	Nephritis	50	21	28	1	1	1	1	2	1	1	7	7	17	12	1	1	1	1	1
34	Other diseases of the urinary and genital systems	12	7	4	1	1	1	1	1	2	1	1	3	4	1	1	1	1	1	1
35	Puerperal infection																			
36	Other diseases of pregnancy, childbirth, and the puerperium																			
37	Diseases of the skin, cellular tissue, bones, and organs of movement																			
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	41	22	16	2	1	40	41												
39	Senility, old age	6	2	4																
40	Suicide	17	13	4					2	1	2	2	3	3	12	2	2	2	2	2
41	Homicide	1	1										1							
42	Automobile accidents (all motor-driven road vehicles)	13	12	1				1	1	1	4	3	2							
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	26	15	9	2			1	4	3		2	2	3	3	7	1	1	1	1
44	Causes of death ill-defined, unknown, or unspecified	2	2									1	1							

Estimated Population, 92,466.

Total Resident Deaths, 805.

Rate per 1,000 Population, 8.7.

TABULATION OF DEATHS IN SUSSEX COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths	White		Colored		Age Periods											Unknown				
			Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69		70 to 79	80 to 89	90 and over	
	ALL CAUSES .....	382	218	163	1	.....	27	28	2	1	1	6	16	9	8	48	79	107	70	7	.....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	8	6	2												1	3	3	1			
7	All other forms of tuberculosis .....																					
8	Malaria .....																					
9	Syphilis .....	2	2											1		1						
10	Influenza .....																					
11	Smallpox .....																					
12	Measles .....	1		1						1												
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	1	1																			
15	Cancer and other malignant tumors .....	62	26	36			1							2	1	2	5	21	23	7		
16	Nonmalignant tumors or tumors of unspecified nature .....																					
17	Chronic rheumatism and gout .....																					
18	Diabetes mellitus .....	9	3	6													1	6	2			
19	Chronic or acute alcoholism .....																					
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	2		2																		
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	1		1										1				1				
22	Intracranial lesions of vascular origin .....	47	22	25											1	9	7	24	6			



TABULATION OF DEATHS IN UNION COUNTY FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods													
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown	
	ALL CAUSES .....	3409	1771	1402	120	116	183	207	17	9	14	64	121	106	167	559	831	818	429	67	...
1	Typhoid and paratyphoid fevers .....																				
2	Plague .....																				
3	Scarlet fever .....																				
4	Whooping cough .....																				
5	Diphtheria .....																				
6	Tuberculosis of the respiratory system .....	61	37	13	6	5		1				8	9	5	3	12	17	3	3		
7	All other forms of tuberculosis .....	3	3					1								1					
8	Malaria .....																				
9	Syphilis .....	14	6	1	5	2							2	1	3	5		3			
10	Influenza .....	4	1	3					1								1	1	1		
11	Smallpox .....																				
12	Measles .....	1	1						1												
13	Typhus fever .....																				
14	Other infectious or parasitic diseases .....	19	13	4	2		1	2		1	2	3	3		2	3	1	2			
15	Cancer and other malignant tumors .....	611	309	267	15	20			1	1	1	2	20	24	47	125	185	164	37	4	
16	Nonmalignant tumors or tumors of unspecified nature .....	12	3	9								1	1	4	1	4			1		
17	Chronic rheumatism and gout .....	2		2																	
18	Diabetes mellitus .....	109	25	76	1	7						1	1		3	21	35	40	8		
19	Chronic or acute alcoholism .....	3	2		1								2				1				
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	48	24	23		1	4	9	3	1	2	3	3	2	5	6	6	8			
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	10	4	4	1	1	1	2			1	1				2	1	3			
22	Intracranial lesions of vascular origin .....	310	135	155	7	13	2	2		1		1	7	6	17	47	93	79	52	6	

23	Other diseases of the nervous system and sense organs	20	11	7	2				1	2				3			4	3	5	2				
24	Diseases of the heart	1267	704	507	27	29			2	1				10	32	28	39	226	338	354	209	27		
25	Other diseases of the circulatory system	99	44	52	2	1									1	1	4	7	8	34	32	12		
26	Bronchitis	7	5	1		1									1				1	1	1	1		
27	Pneumonia and bronchopneumonia	88	45	34	6	3	11	17		1				2	3	3	2	9	9	23	14	5		
28	Other diseases of the respiratory system	21	16	5				1	1						2	1	1	5	9	2				
29	Diarrhea and enteritis	5	3	2											1	1			2					
30	Appendicitis	15	5	8	1	1									1		3	5	6					
31	Diseases of the liver and biliary passages	61	35	26											1	8	6	13	18	12	2	1		
32	Other diseases of the digestive system	55	33	19	2	1	2	2						2	3	4	2	12	14	10	6			
33	Nephritis	140	71	53	7	9			1					1	2	2	7	22	36	35	31	1		
34	Other diseases of the urinary and genital systems	32	22	6	2	2	1	1	1						3		3	3	5	10	6			
35	Puerperal infection	1		1											1									
36	Other diseases of pregnancy, childbirth, and the puerperium	6		5		1								4	2									
37	Diseases of the skin, cellular tissue, bones, and organs of movement	5	2	3			1	1											1		1			1
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	145	79	45	11	10	142	142	2											1				
39	Senility, old age	8	4	4																1	1	5	1	
40	Suicide	37	23	13	1									4	7	4	7	4	10	1				
41	Homicide	11	1	2	5	3	2	2						2	3	3		1						
42	Automobile accidents (all motor-driven road vehicles)	36	31	2	3			1	2					1	3	3	4	4	4	9	4	1		
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	132	67	47	12	6	12	15	3	4	2			9	9	4	6	16	14	21	20	9		
44	Causes of death ill-defined, unknown, or unspecified	11	7	3	1		3	3						3	1			1	2	1				

Estimated Population, 389,842.

Total Resident Deaths, 3,409.

Rate per 1,000 Population, 8.7.

TABULATION OF DEATHS IN ELIZABETH FOR 1948, ACCORDING TO THE ABRIDGED INTERNATIONAL LIST OF CAUSES OF DEATH

Abridged International List Number	CAUSE OF DEATH	All Deaths		White		Colored		Age Periods														
		Male	Female	Male	Female	Under 1 year	Under 5 years	5 to 9	10 to 14	15 to 19	20 to 29	30 to 39	40 to 44	45 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 and Over	Unknown		
																					Male	Female
	ALL CAUSES .....	1153	638	451	37	27	63	71	5	5	3	26	39	40	47	198	305	268	130	16	....	
1	Typhoid and paratyphoid fevers .....																					
2	Plague .....																					
3	Scarlet fever .....																					
4	Whooping cough .....																					
5	Diphtheria .....																					
6	Tuberculosis of the respiratory system .....	29	16	9	2	2		1				3	4	5		4	8			2		
7	All other forms of tuberculosis .....	1	1																			
8	Malaria .....																					
9	Syphilis .....	5	2		2	1							1	1	1		2					
10	Influenza .....	2	1	1					1								1					
11	Smallpox .....																					
12	Measles .....																					
13	Typhus fever .....																					
14	Other infectious or parasitic diseases .....	5	3	2			1	2				1				2						
15	Cancer and other malignant tumors .....	186	104	75	3	4			1	1		2	5	7	9	37	62	49	13			
16	Nonmalignant tumors or tumors of unspecified nature .....	7	1	6									1	1	2	1	1			1		
17	Chronic rheumatism and gout .....	1		1																		
18	Diabetes mellitus .....	45	12	31		2									2	8	17	15	3			
19	Chronic or acute alcoholism .....	1	1																			
20	Avitaminoses, other general diseases, diseases of the blood, and chronic poisonings .....	16	8	8				2	1			1		2	2	1	3	4				
21	Meningitis (nonmeningococcal) and diseases of the spinal cord .....	2	1			1	1	1				1										
22	Intracranial lesions of vascular origin .....	107	51	49	2	5	2	2					2	2	5	16	34	24	19	3		

23	Other diseases of the nervous system and sense organs	4	2	1	1				1						1	1	1			
24	Diseases of the heart	441	263	163	9	6		1			1	5	10	12	13	81	137	118	59	4
25	Other diseases of the circulatory system	31	17	14												3	2	12	11	3
26	Bronchitis																			
27	Pneumonia and bronchopneumonia	44	26	14	3	1	5	7		1			1	1	2	6	4	15	6	1
28	Other diseases of the respiratory system	7	6	1									1	1		3	2			
29	Diarrhea and enteritis	2	1	1												2				
30	Appendicitis	3	1	2												1	2			
31	Diseases of the liver and biliary passages	19	10	9								1	3	3	5	3	4			
32	Other diseases of the digestive system	19	9	9	1						2	1	1		6	5	3	1		
33	Nephritis	36	18	15	2	1		1			1	1	1		2	7	10	6	7	
34	Other diseases of the urinary and genital systems	10	5	4		1									2	1	1	5	1	
35	Puerperal infection																			
36	Other diseases of pregnancy, childbirth, and the puerperium	2		2								1	1							
37	Diseases of the skin, cellular tissue, bones, and organs of movement	1	1				1	1												
38	Congenital malformations and debility, premature birth, and diseases peculiar to the first year of life	48	26	16	4	2	47	47									1			
39	Senility, old age	4	3	1														1		
40	Suicide	8	5	3							3	1	1		2	1			1	2
41	Homicide	3	1		2							2	1							
42	Automobile accidents (all motor-driven road vehicles)	10	9	1				1				2	1	2		3			1	
43	Other violent or accidental deaths (suicide, homicide, and automobile accidents excepted)	52	32	13	6	1	6	6		3	1	3	5		1	11	7	7	4	4
44	Causes of death ill-defined, unknown, or unspecified	2	2									2								

Estimated Population, 121,500.

Total Resident Deaths, 1,153.

Rate per 1,000 Population, 9.5.



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